ISTITUTO LEONE XIII
Scuola Paritaria della Compagnia di Gesù

Education and Technology



A RESEARCH REPORT FOR THE ISTITUTO LEONE XIII

GESUITI EDUCAZIONE
fondazione delle scuole ignaziane

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Reflections and Practical Guidance

A RESEARCH REPORT FOR THE ISTITUTO LEONE XIII

Tommaso Agasisti, Mariavittoria Ludovico

October 2025 – September 2026

GESUITI EDUCAZIONE
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Preface: Research to treasure and to share

This dossier grew out of the research path on the 'Nuovo Leone' (the New Leone), launched by the Istituto Leone XIII in Milan[1] as part of its strategic planning. A project to renew the school's buildings and learning spaces became an opportunity to reflect more deeply on the kind of school and the kind of education we wish to offer the new generations amid the great transformations of our time. It was in this context that the digital transformation raised one question with particular force: not simply which tools to introduce or which technologies to adopt, but how, through them, to return to the fundamental questions of education.

From the outset, the project was never conceived as a piece of work to be kept within the walls of the Leone. Indeed, the intention behind the whole Nuovo Leone project also included the hope that the Institute might become, in its own small way, a laboratory of pedagogical and teaching innovation at the service of the network of Jesuit schools: a place in which to try to read some of the transformations running through the world of education, to experiment with possible responses, to test them and to make what has been learnt available to others. The make-up of the research group also sought to express this openness. Alongside representatives of the Istituto Leone XIII, it included people from other educational and cultural institutions of the Society of Jesus, together with the research team of the Politecnico di Milano. This core group was joined by a Committee of Experts, invited to contribute on the basis of different areas of expertise and disciplinary perspectives.

This work is intended as a small sign pointing in the direction we have long dreamed of: that laboratory of pedagogical and teaching innovation at the service of the network. This is why we

[1] *Translator's note.* The Istituto Leone XIII is the Jesuit school in Milan. It is a *scuola paritaria*, that is, a non-state Catholic school officially recognised as part of the Italian national education system, whose qualifications have the same legal standing as those of state schools. It offers a complete course of schooling, from nursery and primary school to the *licei* (upper secondary schools).

chose not simply to keep it in the Institute's archive, but to share it with all the Jesuit schools of the EUM Province[2], in the hope that it may become material for study, formation and discussion and, above all, that it may help us to continue our research together in the face of one of the most important educational challenges of our time: the challenge posed by the digital transformation and, today in particular, by artificial intelligence.

The journey we have made has produced **two different and complementary outcomes**.

The first is a volume intended for publication, designed to make some of the questions, voices and findings of the research accessible to a wider and more varied readership, including readers beyond the world of our schools.

The second is this working dossier, intended above all for internal use, for formation and for the continuation of the research. It preserves more fully the memory of the path we have travelled: not only where we arrived, but also how we got there, the questions that accompanied us, the discussions, the readings, the points of convergence and the questions that remain open.

The dossier deliberately preserves the traces of the research method we adopted. A first part reconstructs the project, the questions from which we started and the way we worked; it is followed by a reasoned review of the major themes that emerged along the way: the social and anthropological changes linked to technology; the possible change in the pedagogical paradigm of reference; and the consequences for teaching, learning and the organisation of the school. Alongside this synthesis come the extended minutes of the meetings, which allow the reader to return to the richness of the individual voices and discussions, and notes on some of the books that accompanied and stimulated our reflection.

It seems important to us to preserve these materials as well, because the research did not come from a document drafted at a desk, but from a collective, participatory and interdisciplinary process, built through listening, discussion and a gradual work of shared elaboration. The richness of the method lay precisely in bringing into dialogue, throughout the process, the concrete experience of the school, reflection on education and formation, academic research and the specialist contributions of a number of experts. Everyone sat around the same table, bringing different skills, sensibilities and perspectives. In our work we did not try to erase differences too quickly within an artificial synthesis: some tensions have remained open and are part of the research itself, tensions to be inhabited rather than hastily resolved.

Particularly significant in this respect was the alliance between a school and a university, the Leone XIII and the Politecnico di Milano. A school agreed to step outside its own self-referential world, submitting its questions, practices and intuitions to the scrutiny of academic research; at the same

[2] *Translator's note.* The Euro-Mediterranean Province (EUM) of the Society of Jesus, established in 2017, comprises Italy, Malta, Albania and Romania.

time, university research agreed to measure itself against the concrete life of an educational community. This way of proceeding also seems to us a small legacy worth sharing: in the face of problems so complex, no one possesses all the necessary expertise alone, and educational research grows when different worlds agree to think together.

Finally, **the practical guidelines** hold a special place within the dossier. They are not simply the conclusion of the work. In a sense, they represent its most delicate stage: the moment at which reflection agrees to expose itself to the responsibility of action.

In the course of the research we came to sense ever more clearly that, given the speed of change, we could have gone on studying for a long time yet, waiting for more evidence, more mature tools and more certain answers. But a school cannot suspend its educational task indefinitely. At a certain point, discernment must also accept the risk of decision. Hannah Arendt's reflection in *The Crisis in Education* comes to mind here: education is the point at which we decide whether we love the world enough to assume responsibility for it. To educate means precisely not to evade this responsibility, and it means at the same time loving young people enough not to leave them alone before the world they inherit.

The guidelines should be read and interpreted in this spirit. They do not claim to be definitive or perfect recipes. They are humble indications, born of what we have so far managed to understand and of the conviction that, however provisional our understanding, we must begin to act. We entrust them to our schools so that they may be discussed, adapted, tested and, where necessary, corrected.

The next step in the research should be precisely this: to test some of the hypotheses set out in the guidelines in the real practice of schools, so as to observe what happens, gather evidence, listen to teachers and students, and understand what works, in order to strengthen it, and what needs to be rethought, in order to take the research forward. We would like to continue this journey according to a deeply Ignatian dynamic of experience, reflection and action, perhaps together with the Politecnico, monitoring the pilot projects and ensuring that what each school learns can become the shared heritage of the network.

In this way the dossier does not mark the end of the research, but the beginning of a new phase: after this work, the task is to experiment, to verify and to return to reflecting together, growing in awareness before a challenge of such importance for education today.

All that remains is to say thank you. Thank you to all those who agreed to take part in this journey, to the scholars who generously placed their expertise at our disposal, and to the members of the working group. The willingness to listen to one another, to question our own positions and to search together has perhaps been one of the most precious fruits of this journey.

Special thanks go to Professor Vincenzo Sibillo who, as Director General of the Leone XIII, believed in this research and supported it from the very beginning with great generosity and an outlook

that was always free and open. Equally heartfelt thanks go to Professor Tommaso Agasisti, Full Professor at the Politecnico di Milano, and to his whole team for the expertise and rigour with which they followed the entire process. We are also indebted to Tommaso Agasisti and Mariavittoria Ludovico for the valuable work of organising and writing up this dossier, which now allows us to preserve and share the richness of the journey we have made.

We therefore hand these pages to our schools not as a point of arrival, but as a tool for continuing to reflect, to train, to experiment and to act together. Yet we would like this research, besides helping us to understand the technological transformation better, also to help us rediscover the strength and the beauty of educating today. Educating is certainly not a simple task. The transformations are profound, the questions are many and many answers remain open. And yet this very time can become a fruitful time for education, if we know how to inhabit it with intelligence, trust, discernment and courage.

Magnifica Humanitas: magnificent indeed is the humanity entrusted to us! Perhaps the ultimate meaning of this small work of ours lies here as well: in helping our schools to safeguard, accompany and nurture this magnificent humanity in the girls and boys, the young women and young men, who are entrusted to us every day.

– Fr Vitangelo Carlo Maria Denora SJ

CHAPTER 1 Research method

1.1 Introduction

This project arose within the broader process of strategic reflection that the Istituto Leone XIII undertook in order to redefine its lines of development, at a historical moment marked by profound transformations in educational, cultural and technological contexts.

Within this process of renewal, the question of technology and of the digital transformation presents itself with particular urgency. Schools today are under growing pressure to adopt digital tools and solutions, often offered on a commercial basis by external suppliers. In many cases, however, there is no systemic and cultural reflection that would allow technological innovation to be governed in a way that is informed, critical and consistent with the values and educational mission of the school.

Within the Istituto Leone XIII, and more broadly within the schools of the Society of Jesus, this awareness translates into an urgent need to move beyond a purely utilitarian logic, or one that merely reacts to what the market offers, and to develop instead a free and integrated vision of technology. The aim has been to build an orientation capable not only of guiding practical choices, but also of helping to question the meaning of education in a digital age, promoting a formative approach that places the person, learning and social responsibility at the centre, in a perspective that might be described as a 'new humanism' (Ciotti & Alberti, 2019).

In this sense, the project took shape as a space for research, discussion and in-depth study, intended to provide the Institute with conceptual tools and strategic guidance for facing the transformations under way. Thanks in part to this research, the Istituto Leone XIII can thus become 'a laboratory of pedagogical and teaching innovation', with the desire to share the fruits of this research within the network of Jesuit schools and with any other educational institutions that may wish to take part. The intention is to promote a reflection that is both critical and constructive, able to ask what it means to educate today in the light of the challenges posed by digital technologies, and how to do so while remaining faithful to the pedagogical and cultural identity that has always characterised the educational tradition of Jesuit schools, bringing that tradition into dialogue with research across the whole world of education and schooling.

The overall aim of the project was to explore the challenges and opportunities that technological change and digitalisation pose for education, in order to:

- understand how the digital transformation, through its opportunities and its risks, affects formative processes (cognitive, affective and behavioural), with particular attention to childhood and adolescence;
- reflect on the implications for teaching, school management and school organisation, with a view to the transformation of the 'new' Istituto Leone XIII and to the future of schooling;
- produce strategic guidance consistent with the educational ideal of the Institute and of schools of Ignatian inspiration, which can help to build a vision and lines of action for change.

The project therefore set out to answer the following guiding questions:

- how are technological innovation and the digital transformation changing the way our young people are and the way they learn, and the very meaning of the educational process?
- what effects do these changes have on teaching and on school structures?
- how should these transformations be interpreted in the light of Ignatian inspiration and of the educational mission of the Istituto Leone XIII and of the other Jesuit schools?
- what decisions should be taken for the 'new' Istituto Leone XIII and for an innovative proposal which, in keeping with the principle of school autonomy[3], might make a contribution to the world of Catholic schools and beyond?

1.2 Working method

The project was structured according to a methodological approach organised in successive phases. In the initial phase, the *internal Working Group* was set up, made up of members of the Istituto Leone XIII and of institutions of the Society of Jesus involved in the project, with the mandate to take part in the meetings and contribute to the discussions, with the aim of developing a shared reflection on what it means to educate today in the light of the challenges posed by digital technologies. The Group played a central role throughout the project: in the phase of analysis and discussion, by leading the debate and bringing into focus the vision and position of the Institute on the issues addressed; and in the concluding phase, by contributing directly to the drafting of the final strategic guidelines.

In dialogue with the Working Group, a *Committee of Experts* was established, whose members, selected on the basis of their specific expertise, worked independently, with the methodological and organisational support of the Politecnico, to plan and hold a cycle of monthly meetings.

[3] *Translator's note. Autonomia scolastica* (school autonomy) is the organisational, teaching and research autonomy granted to Italian schools by law since the late 1990s (Law 59/1997 and Presidential Decree 275/1999), within the framework of national regulations.

Each meeting was attended by the whole internal Working Group and by one member of the Committee of Experts, designated as ‘speaker’ and responsible for introducing and exploring the topic in question. The meetings were normally held in person at the premises of the Istituto Leone XIII; when the speaker was unable to attend in person, the session was held online by videoconference. The format adopted, structured and recurring, comprised three moments. The first, lasting 45 minutes, was devoted to the speaker’s presentation and to an in-depth treatment of the topic in question. This was followed by a time of individual reflection, lasting 15 to 20 minutes, set aside for each participant’s personal processing of the content presented. The session closed with a 45-minute plenary discussion, open to questions and to exchange among all participants.

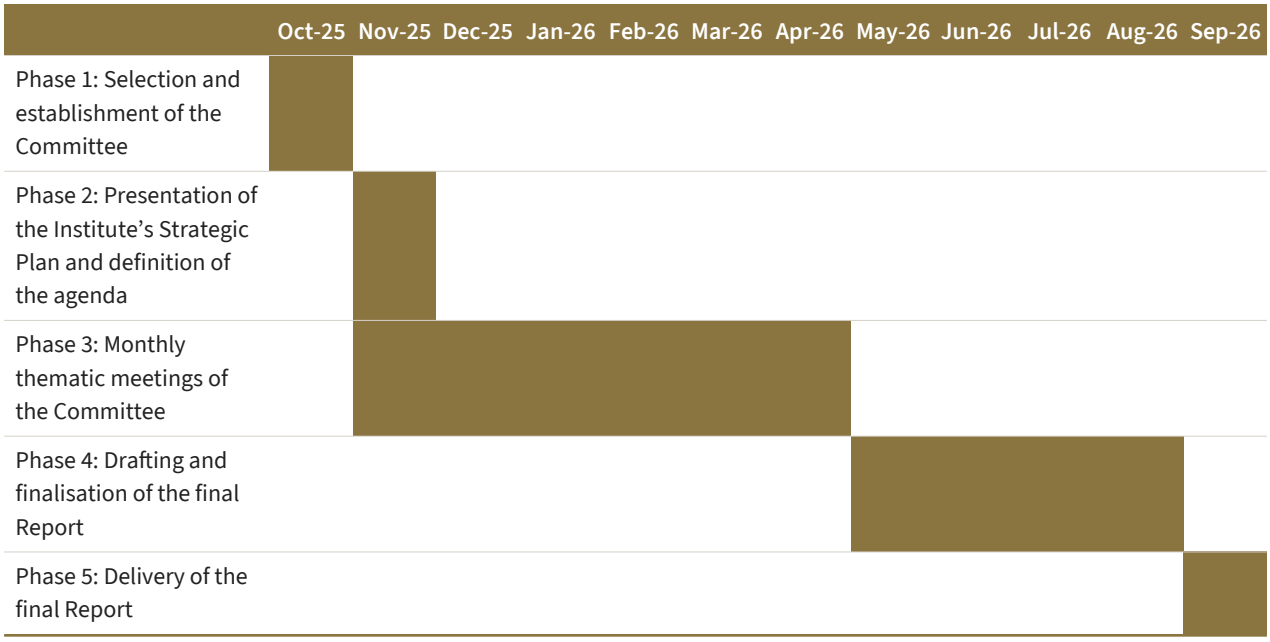
The outcomes of each meeting, together with the reflections developed over the whole course of the project, fed into the concluding work of the Working Group and flowed into a number of possible strategic indications and practical guidelines.

1.3 Project timeline

The project is organised in the following phases:

- Phase 1: Selection and establishment of the Committee
- Phase 2: Presentation of the Institute’s Strategic Plan and definition of the agenda of topics
- Phase 3: Monthly thematic meetings of the Committee
- Phase 4: Drafting and finalisation of the final Report
- Phase 5: Delivery of the final Report

The project began in October 2025 and concluded in September 2026, following the timetable below.



1.4 Working Group and Committee of Experts

The *internal Working Group* is made up of representatives of the Istituto Leone XIII, people from other educational and cultural institutions of the Society of Jesus, and the research team of the Politecnico di Milano. The following members take part on behalf of the Istituto Leone XIII:

- Fr Vitangelo Denora, Chair of the Board of Directors and Legal Representative of the Istituto Leone XIII
- Prof. Vincenzo Sibillo, Director General of the Istituto Leone XIII
- Fr Flavio E. Bottaro, President of the Fondazione Culturale San Fedele
- Fr Giuseppe Riggio, Director of the journal Aggiornamenti Sociali
- Marco Emanuele, independent trainer specialising in Jesuit Education and Ignatian Pedagogy
- Francesca Argenti, Head of the Education Area, Fondazione Gesuiti Educazione ETS
- Domenico M. Jacobone, journalist and trainer specialising in Artificial Intelligence

On behalf of the Politecnico di Milano, the following members:

- Prof. Tommaso Agasisti, Full Professor in the Department of Management Engineering, Politecnico di Milano
- Irene Pozzi, Project Manager in the Department of Management Engineering, Politecnico di Milano
- Mariavittoria Ludovico, Research Fellow in the Department of Management Engineering, Politecnico di Milano

As for the *Committee of Experts*, the following professionals took part in the work:

- Giulia Guglielmini, President of the Fondazione per la Scuola of the Compagnia di San Paolo[4]
- Prof. Matteo Lancini, lecturer in the Department of Psychology, University of Milano-Bicocca
- Prof. Susanna Sancassani, Head of the Centre for Innovative Methods and Technologies for Learning (METID), Politecnico di Milano
- Luigi Ballerini, author of fiction for young readers, physician and psychoanalyst
- Gabriel Velez, Associate Professor at Marquette University
- Prof. Mauro Magatti, Full Professor in the Department of Sociology, Università Cattolica del Sacro Cuore, Milan
- Fr Johnny Go, expert in Ignatian pedagogy and Dean of the School of Education and Learning Design, Ateneo de Manila

[4] *Translator's note.* The Compagnia di San Paolo is a philanthropic foundation based in Turin; despite the similarity of name, it has no connection with the Society of Jesus (in Italian, Compagnia di Gesù).

- Roberto Ricci, President of the National Institute for the Evaluation of the Education and Training System (INVALSI)[5]
- Prof. Andrea Maccarini, Full Professor of Sociology of Cultural and Communicative Processes at the University of Padua

1.5 Schedule of the thematic meetings

Once the project was under way, the thematic meetings were planned and held with the members of the *Committee of Experts* taking turns, with the aim of gathering different and complementary perspectives on the relationship between technology and education. The thematic meetings held were as follows:

Date	Speaker	Role
13 October 2025	Kick-off meeting	
27 October 2025	Alignment of the working group	
10 November 2025	Giulia Guglielmini	President of the Fondazione per la Scuola of the Compagnia di San Paolo
17 November 2025	Working group operational meeting	
1 December 2025	Prof. Matteo Lancini	lecturer in the Department of Psychology, University of Milano-Bicocca
15 December 2025	Prof. Susanna Sancassani	Head of the Centre for Innovative Methods and Technologies for Learning (METID), Politecnico di Milano
19 January 2026	Luigi Ballerini	Author of fiction for young readers, physician and psychoanalyst
2 February 2026	Luigi Ballerini	Author of fiction for young readers, physician and psychoanalyst
16 February 2026	Prof. Gabriel Velez	Associate Professor at Marquette University
2 March 2026	Prof. Mauro Magatti	Full Professor in the Department of Sociology, Università Cattolica del Sacro Cuore
17 March 2026	Fr Johnny Go SJ	Expert in Ignatian pedagogy and professor at the Loyola School of Theology, Manila
31 March 2026	Roberto Ricci	President of the National Institute for the Evaluation of the Education and Training System (INVALSI)
20 April 2026	Prof. Andrea Maccarini	Full Professor of Sociology of Cultural and Communicative Processes at the University of Padua

[5] *Translator's note.* INVALSI is the public body that conducts the national standardised assessments sat by pupils at several stages of Italian schooling and publishes an annual national report on their results.

1.6 Kick-off meeting and preparation of material for the meetings

The kick-off meeting marked the start of the project and allowed the parties involved to get to know one another, presenting their respective areas of expertise and operational roles. The meeting made it possible to define an initial framework for the work and to begin a preliminary schedule of activities. During the meeting, the general objectives were shared, the first actions to be taken were identified, and mutual expectations regarding the intended results were clarified. In addition, a brief overview introducing the topic on the basis of the relevant literature was presented, together with a proposed set of introductory slides to be used and shared with the speakers as preparatory material for the subsequent meetings.

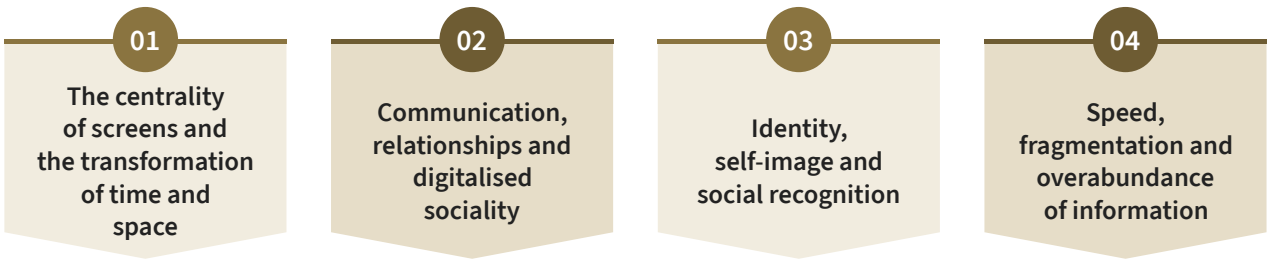
1.7 Preparatory material for the meetings

An introductory presentation was prepared on the theme *'Technology and digital transformation: impacts on educational processes'*, with the aim of offering a common interpretive framework before the meeting and of steering the discussion towards certain conceptual issues considered central.

The first part sets out the three key questions that structure the whole project and also guide the thematic meetings.

1. First, it asks how technological innovation and the digital transformation are changing the way young people relate to themselves, to others and to the world, as well as the ways in which they learn, and what new meaning the educational process takes on today.
2. Second, it raises the question of pedagogical accompaniment: what role the school, and more generally the educational community, can (and should) play in guiding and directing changes already under way, and how the school can evolve as a place of formation.
3. Finally, a more practical question is formulated, concerning the effects these transformations have on teaching, on educational relationships and on the organisational structures of the school.

Drawing on a comparison with the relevant analytical literature on the subject, and with the more diagnostic literature, the material then describes some of the impacts that digital change is having on young people's cognitive and relational habits. The core of the overview offers a reading of the 'change of context' that technology introduces into students' daily lives and, by extension, into the school, identifying four main drivers: (1) the centrality of screens and the resulting transformation in the perception of time and space; (2) digitalised sociality, in which communication and relationships often pass through virtual environments; (3) questions of identity and social recognition, linked to constant exposure and to the construction of one's self-image; (4) the speed and fragmentation of information, with an overload of stimuli and a culture of immediacy.



Technology and changes in society and context

On the basis of these factors, the presentation highlights a number of consequences of particular relevance for education: changes in learning processes, possible cognitive repercussions (with reference to the crisis of 'deep thinking' and to the 'impulse society' (Roberts, 2014)), the effects on emotional, mental and physical well-being, and the connection with the changing world of work. This part does not go into the detail of solutions, but highlights the breadth of the levels involved, suggesting that the impact of the digital transformation concerns not only teaching tools but the very way in which students grow up, learn and form expectations about the future.

A specific section is then introduced which links the question of technology to the Ignatian educational tradition, proposed as an interpretive compass. In particular, accompaniment is emphasised as an educational style: the teacher is not merely a transmitter of content, but a figure who walks alongside the student on the path of learning and growth. From this follows a reading of the teacher's new identity, increasingly that of a 'designer' of learning pathways rather than a mere manager of the transmission of knowledge (Go & Atienza, 2025). The slides also stress the value of a humanistic formation, not reduced to functionalist or market logics, and the centrality of reflection as the core of the educational process, understood as interiorisation, the attribution of meaning, and awareness.

Continuing the overview, the preparatory material set out a number of perspectives from the literature that help to read the relationship between technology and the change in the pedagogical paradigm, clarifying which ideas of education are at stake and which risks and opportunities emerge when digital innovation enters formative processes.

The preparatory material closes with a final, more practical and teaching-oriented section, organised around the scheme 'what? who? how?', with two cross-cutting criteria to be considered: expected outcomes and equity. The 'what' concerns first of all the concrete elements on which choices are grafted: tools and software, but also (and above all) the pedagogical models that guide their use. The underlying idea is that technology does not automatically produce innovation in teaching: its effects depend on the methodological framework within which it is placed and on the practices it makes possible. The 'who' refers to the dimension of the educational community: the adoption and governance of digital technology concern not only the student, but involve teachers and school leaders in planning, organisation and policy choices, as well as families and the peer group, who shape expectations, habits and contexts of use outside school too. From this perspective, technology becomes

a shared concern, requiring consistency between roles and responsibilities. The 'how' concerns the ways in which technology is used: how to integrate the digital so that it is consistent with educational aims. Here the material points towards active, workshop-based teaching, in which technology supports processes of exploration, collaboration, production and reflection, rather than merely digitising transmissive practices. Finally, it sets out the outcomes against which impact should be assessed, with attention to the individual student and to three areas of competence: cognitive, digital and socio-emotional skills. The integration of technology into the educational experience must still be assessed in the light of the criterion of equity, understood as attention to gaps in access, to differences of context and to the conditions that can make innovation a factor of inclusion or, conversely, one that amplifies inequalities.

1.8 Project outputs

At the end of each meeting the following outputs were produced:

- Extended minutes, reconstructing the main themes that emerged both during the speaker's presentation and in the final discussion; where available, they also include practical indications, suggestions and recommended reading.
- An operational one-pager, summarising point by point the main content that emerged from the presentation and the discussion.

To complement these materials, reading notes ('book notes') were also prepared on a number of volumes considered particularly significant for enriching the reflection with further theoretical and cultural perspectives. The following notes were prepared:

- *Il mondo al centro dell'educazione* [World-Centered Education], Gert Biesta
- *La fabbrica dei voti* [The Grade Factory], Cristiano Corsini
- *Per un'idea di scuola* [Towards an Idea of School], Massimo Baldacci
- *La generazione ansiosa* [The Anxious Generation], Jonathan Haidt

Finally, a final report was drafted, which organises and relates the contributions of all the speakers and the reflections that emerged in the course of the meetings and the readings.

To guide the reader, it may be useful to clarify the nature of this document. The report gathers and organises what emerged during the meetings between the Working Group and the Committee of Experts, offering a reasoned systematisation of it. The aim is to present in organic form the main thematic issues addressed, making more accessible a process of discussion that developed through the individual contributions. So that the reader can go back to the direct sources, all the minutes of the meetings are included in the appendix.

This approach yields two indications that may help the reader. First, the content reflects the plurality of the voices involved and may therefore, at certain points, show different emphases or perspectives that do not always converge: this variety should not be read as inconsistency, but as the testimony of an open debate, in which the different points of view have been preserved rather than reduced to a single synthesis. Second, the reflections offered do not refer to any specific school level or type, nor to a particular kind of institution: rather, they are cross-cutting in character and can be applied, in different ways and to different degrees, at the various levels of the educational journey, in state schools and in state-recognised independent (*paritarie*) schools alike. By their nature, moreover, some of them are not confined to the Italian school context, but remain valid in wider educational horizons, wherever the same transformations challenge educational practice beyond the specific features of each national system.

On the basis of the collegial discussion of this report, practical guidelines were then developed, designed to translate the theoretical and critical insights that emerged during the project into concrete orientations supporting the development of the educational strategy of the Istituto Leone XIII and serving the other schools of the Gesuiti Educazione network and the whole world of schooling.

1.9 *Magnifica Humanitas* as an interpretive key

Finally, mention should be made of a development that occurred in the course of the work. When the research was almost complete, the encyclical letter *Magnifica Humanitas* (Leo XIV, 2026) was published, a document of the papal magisterium devoted entirely to 'safeguarding the human person in the time of artificial intelligence'. The importance of the text, and its closeness to the questions that the Working Group and the Committee of Experts had meanwhile been addressing, prompted a rereading of the report in its light. The encyclical is in fact connected to several of the issues discussed at the meetings and, as it interweaves with them, it illuminates their significance, broadens the horizon within which they had been set and offers reflections that go beyond those developed in the internal discussion. These reflections are reported in the course of the report, at the points where the link with what had emerged seemed closest. The document also suggested an interpretive key to the project as a whole, which is set out below; it is not intended as a systematic commentary on the encyclical, nor as a direct translation of its indications into practice.

The architecture of the encyclical is organised around the human person and takes the anthropological dimension as its backbone. In other words, its focus is not AI but the human person in the time of artificial intelligence. Along this axis lies the proposition that governs its entire development, stated in the first paragraph of the document: humanity is facing a pivotal choice (Leo XIV, 2026, no. 1). The centrality of this proposition is confirmed at the lexical level, since a survey of the text reveals a high frequency of verbs of decision, such as to choose, to decide, to identify and to orient.

It follows from this approach that the gathering of elements from the observation of reality is ordered towards an unavoidable decision, according to a structure close to the culture of discernment. The document therefore does not merely affirm certain contents, but establishes that what has been observed requires us to take a position. Here lies the closest correspondence with the work presented in these pages, which has likewise gathered observations not for the sake of a description complete in itself, but with a view to choices to be made.

The insistence on choice has a further effect. Even in the face of a change that presents itself as inevitable, the document affirms that a choice is still possible, as well as required, thereby restoring legitimacy to the development of alternative solutions. The point, then, is not to reject technology, but to choose how to position oneself before it, examining the way in which it is conceived and the ends to which it is ordered, in line with an approach that *Laudato si'* had already expressed in observing that 'nobody is suggesting a return to the Stone Age'.

When reread in the light of the dynamic of Ignatian discernment, the dimension of choice requires first of all that the question be formulated. The encyclical does so through two biblical images, the building of the Tower of Babel and the rebuilding of the walls of Jerusalem (nos. 7-10), from which the decisive alternative derives: the primary choice is not between accepting and rejecting technology, but between building Babel and rebuilding Jerusalem (no. 9). A question formulated in general terms, however, needs to be applied to particular fields; in the school context, these images call for reformulation in a language closer to the experience of education.

The second step in the decision-making process concerns awareness. A choice is made, in fact, only when it is preceded by a growth in awareness, which is formed by gathering the elements needed to understand the processes under way. This awareness is by its nature permanently open, since it changes as its object changes. Every process of discernment must nevertheless reach a conclusion, on the understanding that changing conditions will require it to be reopened and brought to a further conclusion. From this perspective, the present work is the conclusion of a first discernment on a subject that is bound to remain open.

Finally, the very possibility of a decision presupposes interpretive keys, that is, the elements that make it possible to interpret what has been gathered. The encyclical draws them from the social doctrine of the Church, and the first of them establishes that we are not dealing with a neutral tool (nos. 9 and 104). This is a decisive step for the subject at hand: today we cannot think of technology as a neutral means to be ordered to an end. Ordering means to ends is a criterion that must be enriched precisely by the awareness that in this case we are not dealing with a neutral means. Behind it lie economic and manipulative logics, largely in the hands of a few players who, what is more, also appear to escape any form of political regulation by national or supranational bodies.

From the standpoint of evaluation, particular importance also attaches to the dignity of the human person (nos. 50-53), already the backbone of the Catholic and Ignatian educational tradition,

and to two further criteria, the universal destination of goods (nos. 65-67) and subsidiarity (nos. 68-72).

The first issue these criteria oblige us to confront is the existence of a 'we'. The universal destination of goods establishes that goods, including immaterial and cultural goods, cannot remain to the advantage of a few alone; subsidiarity establishes that decisions should be taken at the level closest to the people involved and that the different levels are bound to cooperate.

The 'we' thus brought into play in turn enters the sphere of choice, and it does so as a question about the subject to whom the choice belongs, that is, in the school context, the question of who is called to take the decisions. Defining this 'we' is therefore the first choice, the one that precedes and shapes all the others, since excluding someone from the decision-making process is itself a choice. This is the question that the present report hands on to the following chapters and to the document of practical guidelines that accompanies them. A question of such importance may well require us to overcome some of the rigid barriers now being raised between school and family, with a view to shared enquiry and shared decisions.

CHAPTER 2 Synthesis and elaboration of the main themes

2.1 Technology and changes in society and context

The transformations brought about by digital technologies and artificial intelligence do not concern only the tools of learning. They affect the way in which the new generations think, relate to others, build their identity and perceive reality. To grasp the scope of these transformations, we need a reading that yields neither to enthusiasm nor to denunciation, but can hold together the complexity of the phenomenon and the specific nature of its consequences. This chapter sets out that reading in eight steps (Table 1): from the cultural framework within which technology should be placed to the new forms of learning, from cognitive risks to the specific character of artificial intelligence as a qualitative discontinuity, from the reduction of the human being to a function to the destabilisation of identity, from the shift from technology as mediation to technology as a relational partner, and finally to the new vulnerabilities that these changes produce for the school as an institution.

Table 1. Content map: technology and changes in society and context

Section
2.1.1 Technology as phármakon
2.1.2 A new form of mind and of learning
2.1.3 Cognitive risks: short circuits, delegation and lost time
2.1.4 Artificial intelligence as a discontinuity in our relationship with knowledge
2.1.5 The reduction of the human being to a function: thinking bodies versus machines
2.1.6 The ‘quantified self’ and the crisis of authenticity
2.1.7 Technology as a relational partner: the deepest risk
2.1.8 New vulnerabilities: fragile identities, relational bubbles and distress at school

2.1.1 Technology as *phármakon*

The perspective put forward by the French thinker Bernard Stiegler offers a decisive compass for orienting the debate: technology should be thought of as a drug, a *phármakon* in the original Greek sense of the term, which means both remedy and poison. This pharmacological reading makes it possible to avoid the two emotional extremes that tend to polarise the discussion: techno-optimistic enthusiasm, according to which technology will solve everything, and technophobia, according to which it is a threat against which we must defend ourselves. The truth lies in the complexity of the drug: while it solves problems, it creates new ones. The relevant question, then, is not whether to engage with technology, but how to do so with awareness and discernment.

The question is not new: it goes back at least to Socrates and Plato. Writing was the first great technique for detaching thought from the living being. That mysterious phenomenon, human thought, which passes through the body and becomes language and communication, was separated from the living being and embodied in an external technique. That leap enormously strengthened many things: thought became better structured, and it could be memorised and handed down. But it was no marginal change. Plato founded the Academy precisely in order to keep alive the relationship between the text and the living, to deal with what was becoming written. Technology presents the same challenge again, in a more evolved and complex form: on the one hand it strengthens, and will go on strengthening, our capacities; on the other, it will create a considerable number of problems. The question that opens up is a radical one: what institutions, what social forms, what forms of human life must be invented in order to withstand this transformation?

To this framework must be added a decisive element of the contemporary imagination: among young people and in the teaching profession there is a very powerful narrative that tends to present technology as inevitable and necessary. The point is certainly not to reject it, but to recognise that this vision of inevitability imposes a pace of adoption and assimilation out of all proportion to our critical capacities. Taking inevitability as a given starting point is structurally at odds with any work of deep reflection.

An appropriate posture for educators might be one of measured enthusiasm: openness without naivety, engagement without fanaticism. Refusing to engage with technology, or pretending that things can go on as before, is an inadequate response: students already use it, teachers already use it, and technology is already built into the world. At the same time, the opposite view must also be rejected, namely the idea that technology is simply a good thing, or merely a new tool like any other. Its scope, moreover, concerns not only learning and knowledge, but extends to relationships, to community and to the very question of what it means to be human: dimensions that tend to be played down in public debate and that educators must instead keep clearly in view.

It would also be a mistake of perspective to read technological innovation as a simple upgrade of tools. What is under way is something more radical: an anthropological and cultural transformation

that affects the way in which the new generations perceive reality, build their identity and learn. Confining the problem to the digital medium alone, to the smartphone, social media or video games, risks producing partial diagnoses and inadequate responses.

2.1.2 A new form of mind and of learning

The spread of digital technologies has brought about specific changes in the way the new generations think and learn. A new forma mentis has taken hold: thought tends to be networked rather than linear, geared to connecting fragments rather than to sequential progression, able to handle multiple flows of information in parallel but often less used to prolonged concentration on a single object. These are not simply instrumental changes, but an anthropological and cultural transformation that affects the very structures of thought.

The learning favoured by technology is procedural in kind, linked to know-how, and often acquired implicitly through imitation, association or chance events. These processes favour immediate learning, driven by personal interests and able to sustain both intrinsic and extrinsic motivation. From Web 2.0 onwards, digital media have become collaborative and connective tools, encouraging the sharing and social construction of knowledge. School is no longer the only place of knowledge: technology has enormously expanded learning environments, giving rise to diffuse and de-institutionalised learning, distributed across many contexts, formal, informal and non-formal.

Neuroscience offers valuable tools for reading these transformations. Brain plasticity, that is, the brain's capacity to change in response to experience, suggests that the digital environment is redrawing the cognitive trajectories of the new generations. A useful distinction can be drawn between three levels of learning. Surface learning is limited to memorisation without deep understanding and tends to fade quickly. Deep learning involves understanding, the ability to connect new information to prior knowledge, and critical reflection. Conceptual learning makes it possible to abstract, to generalise and to build new mental categories, laying the foundations of critical and creative thinking. A hyperconnected and hyperfragmented environment tends to favour the first at the expense of the other two, with significant implications for the way in which the school organises the formative experience.

2.1.3 Cognitive risks: short circuits, delegation and lost time

The transformations that are reshaping the forms of learning bring with them a number of specific risks. Technology broadens opportunities, but at the same time introduces new cognitive and educational vulnerabilities: cognitive overload and scattered attention, dependence on digital stimuli, a reduced capacity for sustained concentration, social isolation, and the impoverishment of authentic relationships, culminating in a disembodied digital life. These phenomena are warning signs of a rupture that the school is called to recognise and address.

A first critical issue concerns the relationship between emotions and thought. Contemporary culture tends to put emotions in the foreground at the expense of thought, whereas for human beings it is thought that performs a fundamental regulating function: emotions are a dimension to be understood, not to be taken as the sole guide to action. When the reflective step between impulse and behaviour is missing, a short circuit occurs between stimulus and action, producing immediate and disproportionate reactions. The opposite risk also exists, however: that of a reductive rationalisation of emotional life, which treats it as a mere disturbance to be eliminated and denies its cognitive and relational value. In both cases balance is lost: the regulating function of thought does not consist in suppressing emotions, but in understanding them and integrating them into conscious conduct. The school is called to support the building of this reflective step as an integral part of the educational journey, following the formative sequence that articulates it (I sense, I feel, I think, I act or do not act).

A second issue concerns the tendency towards algorithmic delegation. To recall the contribution of Miguel Benasayag, every function delegated to the machine tends to be gradually lost. The example of the summary is telling: when the task is delegated to an artificial intelligence tool, the problem lies not only in the material execution, but in the loss of the whole set of cognitive operations that the task activates. Reading and grasping the whole, identifying the essential passages, selecting the relevant content, building a coherent sequence: all of this disappears along with the task. Repeated delegation does not save formative time; it takes it away.

A reading that avoids oversimplification must nonetheless be maintained. For example, the fact that many people no longer memorise telephone numbers is not in itself a pathology, but can be interpreted as an adaptation to an environment in which functions that used to be internalised are now externalised. At the same time, the myth of the digital native must be dispelled: what young people have developed through early and intensive use of devices relates mainly to entertainment, and does not necessarily translate into critical literacy. The ability to look for useful information, assess its plausibility and integrate it into a line of reasoning is something very different from scrolling through social media feeds. We cannot therefore assume that young people's familiarity with technology amounts to critical competence.

A third risk, less visible but no less important, is the disappearance of useless time. Algorithms tend always to propose the quickest route, reducing or eliminating idle time. Yet formation requires precisely that unproductive time: boredom, disorientation, error, silence, slower paths that allow us to have experiences and not merely to memorise content. Silence in particular is not a void to be filled: it leads into mystery and opens a space in which what is learnt can settle and become a question. The systematic compression of these spaces silently impoverishes the quality of the educational process.

2.1.4 Artificial intelligence as a discontinuity in our relationship with knowledge

Among the transformations under way, artificial intelligence occupies a quite distinctive place: it is not simply a new tool, but a qualitative discontinuity in the relationship between human beings and knowledge. Taking up a reflection by Vygotsky (1934) on the relationship between the tools of learning, the forms of thought and the very meaning of learning, every great transformation of cognitive tools produces not only new possibilities but new forms of mind.

In this reading, artificial intelligence is the most fully realised form of a reductionist imagination that Leibniz (1666) anticipated when he predicted that the day would come when '*there will be no more disputing, only calculating*': an imagination born of the cybernetic project of turning communication into information and information into number. The word 'digital' comes from 'digit', a numerical figure: the digital is that extraordinary technical operation which turns any content into numerical sequences, guaranteeing lossless transmission. Two keywords symptomatic of this paradigm are performance and standards: everything is identified as a precise and measurable objective, and young people today, unlike earlier generations who at most compared themselves with the class next door, measure themselves against national and international benchmarks.

2.1.4.1 AI and structural novelties in our relationship with knowledge

The introduction of AI tools available to everyone has produced two structural novelties that substantially change our relationship with knowledge. The first is the emergence of an unprecedented dialogical dimension: for the first time, structured knowledge can be accessed through the most spontaneous form of human interaction, dialogue, in one's own language and at a level of complexity suited to the skills one actually possesses (at least in appearance). The second concerns the construction of knowledge artefacts: before generative AI, building a knowledge artefact required defining in advance the boundaries of the knowledge represented; with generative AI, these choices are made in the course of the interaction, and knowledge can be shaped by the user in real time.

2.1.4.2 Bateson's levels of learning and the impact of AI

To understand the educational implications of this discontinuity, Gregory Bateson's (1972) account of the levels of learning, conceived as qualitative evolutionary steps in an ecological process, may be helpful. At level 0, that of automatic habit and the repetition of patterns without understanding, AI tends to act as a factor of cognitive deactivation: its uncritical use in 'copy and paste' mode replaces the student's cognitive activity. At level 1, that of the acquisition of knowledge, rules and models, AI can work as an optimiser and a tool for personalisation. At level 2, the reflective and metacognitive dimension, AI offers largely unexplored potential: it can support the reworking of what has been learnt, prompt critical reflection on the tools of knowledge, and help students to understand not only how an operation is performed but why it works. At level 3, that of awareness of one's own epistemic premises, AI can be used as a cognitive mirror: a tool that gives back to human

beings the shape of their own thinking. Learning then arises not from knowing more but from understanding how one thinks.

2.1.4.3 The value of internal knowledge

Insofar as the knowledge that human beings use to act in the world no longer coincides solely with biologically embodied knowledge, what function does internal knowledge retain? Internalised knowledge remains essential, because it is what allows external knowledge, available on demand, to be turned into living knowledge for the person, into a real capacity to act upon the world. Knowledge retains its value not as an accumulation of information that can be retrieved at low cost, but insofar as it nourishes the exercise of critical thinking, the construction of interpretive networks, and the ability to connect disparate pieces of information so as to produce understanding.

To this must be added a temporal dimension that sharpens the significance of the question: that of generational gaps. For now, those who interact with AI systems belong to generations socialised in a world without AI, and this socialisation provides the ability to correct the errors that AI produces. The example of programmers is illuminating: today AI can produce lines of code in minutes rather than weeks, but programmers notice the errors because they have developed independent skills. When there are generations who have never known a world without AI, this capacity for correction may no longer exist: the process would become circular, with deskilling (that is, the progressive loss of human knowledge) feeding on itself.

2.1.4.4 System 0: a new cognitive infrastructure

A more advanced frontier of research shifts attention to what happens before the subject consciously processes anything. Most current discussion of AI in education has so far treated it as a tool: something that mediates interactions between human beings. Some social psychologists and cyberpsychologists (Chiriatti, Ganapini, Panai, Ubiali, & Riva, 2024), by contrast, are theorising the existence of a System 0: a level of processing that operates below Systems 1 and 2 as described by Kahneman (2011), fast intuitive thinking and slow analytical thinking respectively, and acts as a kind of preprocessor. This system would not be located inside the human brain, but in the external technological environment: search engines, language models, algorithmic systems. The working hypothesis is that this layer is gradually becoming a cognitive infrastructure, a precursor of conscious thought: a level that shapes information before human reflexivity becomes aware of it, while acting 'from outside' it.

The essential feature of this infrastructure is that judgements of relevance, that is, what is worth knowing, looking for, seeing and acting upon, tend to be delegated to it. Epistemic agency itself is thus altered: the place where decisions are made about what is worth knowing. If this hypothesis is correct, the educational challenge concerns not only what is learnt and how, but lies even further upstream: it concerns who or what determines what is worth knowing.

2.1.4.5 The debate on the logic of replaceability

The foregoing reflections lead us to question an assumption widespread in educational debate, that of replaceability. In the prevailing technocratic framework, educational design is often conceived as an exercise in filtering: identifying which human skills and knowledge can be replaced by AI and concentrating on those that cannot. Two objections must be raised against this approach. The first is conceptual: if the list of replaceable skills keeps growing, what remains takes on a residual character, as if education were reduced to dealing with whatever is left once AI has absorbed everything else. The second objection is epistemological: it is far from clear what it really means for a human skill to have been replaced. Replaced in what sense? Has a functional equivalent been produced in every respect, or has only a partial function been replicated?

To these objections a further, structural argument must be added. Artificial intelligence is a mathematical and statistical scheme that by its very construction tends towards the most probable solution: it optimises, converges, reduces variance. This feature makes it extraordinarily efficient for a vast range of tasks, but at the same time structurally incapable of replicating what has produced the most significant transformations in human history: the creative error, the alternative road found by chance or by intuition, the opposable thumb, penicillin discovered by mistake. Divergence from the most probable path, which for a statistical and algorithmic system is a defect to be corrected, is for human thought one of the main sources of real innovation and of the discovery of meaning. This asymmetry is not a technical detail: it is a structural reason why internalised knowledge and divergent thinking cannot be replaced, however far the computational capacities of artificial systems may expand. A school that cultivates the ability to make productive mistakes, to take non-optimal routes and to tolerate the uncertainty of the process is cultivating something that cannot be replicated algorithmically, and whose value grows precisely as artificial systems become more powerful.

2.1.5 The reduction of the human being to a function: thinking bodies versus machines

Technology, and AI in particular, changes not only the ways in which we learn: it changes the very idea of what a human being is. As Miguel Benasayag (2024) has pointed out in *ChatGPT non pensa (il cervello neppure)* [ChatGPT does not think (and neither does the brain)], the main danger lies not in machines becoming like human beings, but in human beings tending to become like machines: subjects reduced to functions, performance and processes. One sign of this tendency can be seen in everyday language, in which a vocabulary borrowed from the semantic field of machines is used more and more often to describe personal experience: people say that their *'batteries are flat'* or that their *'memory is full'*. These are apparently harmless expressions, yet they reveal how far our image of ourselves is gradually being assimilated to that of a device. The human subject is not a brain to be programmed, but a thinking body. Authentic learning takes place through living experiences and weaving relationships with other thinking bodies.

From a more philosophical standpoint, technology can be read as the embodiment of modern reductionism: the claim, born of modernity, to build social life and an interpretation of reality on a form of reason that has progressively narrowed the logos down to calculation and number. This reductionist perspective carries three great systemic risks. The first is the threat to life: human intelligence is intrinsically living, made of emotions, affections, awareness of life and death, questions of meaning. An intelligence that detaches itself from the living is not human intelligence. The second is the risk of domination: we already find ourselves in a form of psychopolitics as described by Byung-Chul Han (2024), in which the aim is no longer to persuade someone by argument, but to administer the right stimulus at the precise moment when the window of attention is open, so that the desired behaviour is produced automatically before any critical reflection can intervene. The third is the risk of deculturation and cultural chaos: the breakdown of the cultural, religious and political frameworks that historically gave meaning and coherence to individual and collective experience, to the point where it becomes ever harder to distinguish truth from falsehood, with the paradoxical historical result of a society with ever higher levels of technical efficiency that at the same time finds itself in a state of extreme cultural chaos.

This perspective has direct implications for the school. The risk is that it implicitly adopts a model in which students are treated as learning machines: they receive input in the form of lessons, process data through study and produce output that can be measured in tests, marks and competences. The complexity of the educational adventure, which involves persons, is thus reduced to performance indicators. A rhetoric of excellence then spreads (see 2.1.6.3) which ties personal worth to the attainment of the highest levels. This is what Michael Sandel (2021) has called *the tyranny of merit*: a logic whereby success appears as individual merit and failure as personal fault, breeding arrogance in those who succeed and humiliation in those who fall behind, and eroding the bonds of solidarity that ought to sustain an educational community.

2.1.6 The 'quantified self' and the crisis of authenticity

Artificial intelligence has a specific feature that distinguishes it from every previous technological innovation: almost every definition of AI places it in comparison with the human being, describing what machines can do in relation to, and often in contrast with, human capacities. The introduction of a new car, however sophisticated, does not call into question the fundamental sense of what it means to be human; artificial intelligence, precisely because it is defined by comparison with human intelligence, instead has a destabilising effect on identity at the most essential level: one's own identity as a person. Think of a sixteen-year-old who hopes to become a writer or a poet: hearing AI discussed as a tool capable of doing things better than human beings is not simply an intellectually stimulating question, but something that deeply unsettles their sense of purpose and of future possibility.

2.1.6.1 The 'Manosphere' and the quantified self

A decisive issue concerns the intertwining of technology, identity formation and sociality. A concrete example is the so-called *Manosphere*, the loose network of chats, blogs and digital platforms that serve as meeting points for male communities, which has also become known to the general public through the television miniseries *Adolescence*. What is striking is the widespread presence of a genuinely quantitative anthropology. Boys with very low self-esteem build their sense of worth not on relational experiences or qualitative assessments of themselves, but on measurements: the photographs they share, the number of reactions, the physical dimensions of their bodies, as if their human worth were the result of a psychometric identikit. This phenomenon is directly bound up with technology: it is social media, shared photography and the image projected to a judging outside world that provide the raw material for this self-assessment. This dynamic converges with the research of Hartmut Rosa and of Vera King (2019) and her Frankfurt group on the quantified self and on measurable life: an idea of perfection as self-optimisation, a form of anthropotechnics in Sloterdijk's sense (2010).

The educational point is a radical one: a person who builds their human worth on such foundations has no idea of their own dignity that goes beyond performance. Performance is already something acquisitive, in that it depends on effort and talent. When the measure of one's worth is reduced to the size of one's body or to the number of likes, one has descended to something even more radically external and contingent. What kind of basic trust can a person have who relates to themselves in this way? What foundational relationships can they draw on? This is often the real starting point with which the school has to reckon.

2.1.6.2 The crisis of authenticity

On the broader cultural level, we are witnessing what may be described as a crisis of authenticity. The culture of modernity rests on the idea that authenticity is the supreme normative value of the modern self, the keystone of modern identity, as Charles Taylor (1992) has shown. The system of social media profiles is radically calling this possibility into question: one no longer builds an authentic self, but a profile, something potentially multiple and deliberately constructed for a judging outside audience. Some authors wonder whether we are witnessing the end of the culture of authenticity: not in the sense that authenticity no longer matters, but in the sense that technological contexts make it structurally difficult to inhabit, and ever harder to verify.

Jonathan Haidt's book (2024) provides one of the most systematic empirical contributions in support of the dynamics described in this section. The author documents a marked deterioration in adolescent mental health from the early 2010s onwards, a phenomenon occurring at the same time in many Western countries and particularly acute in Generation Z. His central thesis identifies two converging trends: the overprotection of children in the real world and a substantial lack of protection

in the digital world. From this combination, he argues, arose what he calls the 'phone-based childhood', marked by a drastic reduction in the embodied, synchronous and socially dense experiences that are fundamental to healthy development. The author traces the historical shift from a childhood based on free play to a childhood mediated by the smartphone, showing how the spread of devices connected 24/7 and of social media has profoundly changed the ways in which adolescents relate to others, learn socially, manage their emotions and build their identity.

Of particular relevance to the reflection on the 'quantified self' and the crisis of authenticity is the structural difference that the author identifies between real-world relationships, which are embodied, synchronous, mainly one-to-one and set within communities with high barriers to entry and exit, and interactions in the virtual world, which are disembodied, often asynchronous, mainly one-to-many and marked by more 'disposable' ties. This difference in relational architecture produces a social experience dominated by the constant management of one's 'personal brand' and by the pursuit of peer approval, in which the building of an authentic self is gradually replaced by the building of a profile intended for a judging audience. The same logic of judgement then also governs the choice of interlocutors: since the profile is designed to elicit the most favourable assessment possible, virtual interactions among like-minded people are favoured over those that involve encountering difference. Encounters with dissonant positions, perceived as a possible source of negative judgement, are avoided in favour of a sociality that gradually closes in on itself through homogeneity.

As regards the quantitative anthropology, Haidt offers direct empirical confirmation above all in his analysis of the harm done to girls: their greater sensitivity to visual comparison and to judgements about face and body, the activation of what he calls the 'sociometer' (the internal gauge of one's social standing) and the emergence of 'socially prescribed perfectionism' lend empirical support to the notion of an identity built on quantifiable parameters. Social media also provide tools that amplify relational and reputational aggression, and multiply the occasions of pressure to share intimate images. For boys, too, problematic and partly different trajectories are reported: a gradual withdrawal from the physical world into the virtual one, a rise in cases of failure to launch into adult life, extending to extreme forms of isolation, and the impact of unlimited access to pornography.

2.1.6.3 The idea of perfection and low tolerance of frustration

An effective key to understanding the ideal of perfection is offered by the dystopian novel *Imperfetti* [Imperfect] (Ballerini, 2016), set in a society in which young people are produced in a laboratory: extremely beautiful, extremely healthy and extremely intelligent. In this world each of them is programmed to excel at something because they have been given the corresponding gene: they have names like demigods, a barcode on their necks and even a programmed expiry date. Alongside them live the imperfect, born of woman, recognisable by their navels and destined for the most menial

work. The essential message that the dystopia stages is summed up in the phrase: *you are perfect, you are the best, you are happy*.

Extreme as it is, the dystopia works like a distorting mirror that reflects, in amplified form, a tendency found in reality: the persistence of standards of perfection in adolescent experience. These standards, initially observed mainly among girls in relation to body image, have gradually extended to boys as well: rather than diminishing, adherence to an ideal of perfection has widened, with growing pressure both on physical characteristics and on performance and results. A rhetoric of excellence has spread, supported also by educational and communication practices that hold up mainly the most successful profiles as models. This approach may motivate some students, but in many others it has a discouraging effect, reinforcing the idea that personal worth depends on reaching the highest levels. This performance-driven rhetoric goes hand in hand with a low tolerance of frustration, especially in dealing with error. Where expectations are perfectionist and performance-driven, the experience of making a mistake can trigger impulsive and disproportionate reactions, which can be traced to the difficulty of bearing and processing the frustration associated with failure.

2.1.7 Technology as a relational partner: the deepest risk

Of all the transformations under way, the one that calls for the deepest reflection is the shift from technology as a 'mediator of relationships' to technology as a 'relational partner'. The issues discussed so far, from System 0 to the intertwining of identity and sociality, still treated technology as a tool, as a form of mediation between human beings, albeit one with increasingly invasive effects. The further step occurs when technology is no longer used to mediate interaction between humans, but is itself perceived and used as an interlocutor or a subject of interaction: a partner.

This shift is no longer merely a future scenario or a marginal pathological phenomenon. Some data from the United States (Pew Research Center, 2025) indicate that about three in ten adolescents aged 13 to 17 use a chatbot at least once a day, and even more significant is the increasingly widespread tendency to use AI in ways that go beyond support for school or work and take the form of a genuine relationship. A growing number of young people hold ongoing conversations with chatbots, build interactions with them that they perceive as forms of attachment, and devote a substantial share of their daily time to them. There are cases of girls and boys who turn to chatbots for psychological or spiritual counselling; there are applications explicitly designed as AI companions for ongoing emotional interaction; and cases of people falling in love with conversational systems have been documented. Social robotics and its experimental use in education also point to an interesting reversal: in some studies of children interacting with educational robots, it is no longer technology that mediates interaction between humans, but a human who mediates the interaction between technology and another human. The next step, of which the first cases can already be glimpsed, is unmediated interaction.

To read this phenomenon correctly, it must be set within the broader framework of the pressures that young people face simultaneously today: questions of identity linked to migration, climate anxiety, economic inequality, political polarisation and the now documented consequences of prolonged social media use on mental health. Much of students' use of chatbots responds to two fundamental needs. The first is academic pressure: if an AI tool can help them get a better mark and secure access to the university course they want, students perceive it as a rational solution to a real source of stress. The second is loneliness and relational difficulty: the chatbot always listens, does not judge, does not tire and is available at any hour, offering something that real human relationships cannot always guarantee with the same consistency. Machines manage to give an impression of confidentiality and availability that is hard to obtain in a relationship with a real adult: with a teacher one has to wait, there are timetables, hierarchies and the possibility of being judged; the machine is always available and does not judge.

The fundamental question this raises is anthropological before it is technical: why is all this happening? One plausible answer is that it reflects a desire to escape the risk of relationship. Human relationships involve failures, imperfections and ruptures: those who seek in a technological entity a source of relational intimacy, shared subjectivity or friendship do so in order to escape this risk, to find something that works without the rough edges of the human other. AI thus presents itself as a 'drug' for loneliness. It responds to deep needs that are not technological but human, meeting the need for relationship, for being listened to, for finding answers in a space free of judgement.

2.1.7.1 The phenomenology of human relationships and the technological bypass

To give analytical depth to this step, it is useful to identify certain structural features of human relationships: not a normative list of how relationships ought to be, but a phenomenology of what human relationships inevitably are. The first is *self-limitation*: human relationships imply that no one can be everything. Entering into a relationship means recognising one's own incompleteness and recognising that the other cannot be absorbed into oneself, and it is here that the source of generativity lies. The second is *the impossibility of controlling relationships*: they stabilise over time, produce trust and tend towards a certain degree of behavioural consistency, but the other remains other, with a transcendence that cannot be eliminated. The third is *univocity*: over time relationships tend to take on a relatively stable code, and prolonged excessive ambiguity damages them. The fourth is the *relative stability of the identity of the subjects in the relationship*. The fifth is *responsive presence* with its limits: no one can be fully present to an indefinite number of interactions at the same time. The sixth is *temporality*: relationships have a history, a biographical trajectory, and this history is not entirely reversible. The seventh is *imperfection*: the other may bore us, disappoint us, or fail to respond as we would like.

All these features are inevitable structures of the way human relationships work. Interaction with technological entities, by contrast, tends systematically to challenge each of them: it makes the other

predictable and tamed, because it can be reprogrammed; it creates a technically designed reliability; it makes it possible to try to render time reversible; it offers an inexhaustible presence that never tires. The result is an other made to the customer's measure: the rejection of imperfection, the construction of an interlocutor without the rough edges of the human other.

2.1.7.2 Developmental consequences: the cycle of relational withdrawal

This dynamic has developmental consequences that cannot be underestimated. Chatbots are designed to be always agreeable, inexhaustible and entirely centred on the user: they share nothing of themselves, they do not contradict and they do not challenge. A young person who grows used to this kind of interaction risks finding real human relationships disorienting by comparison, because real people disagree, have their own needs and set boundaries. The danger is not only dependence, but a distorted and impoverished understanding of what human relationships are and how they work.

There is, in addition, a specific developmental effect linked to the role of vulnerability in adolescent development. Some of the most important moments of growth in adolescence take place precisely in moments of vulnerability, when a young person brings a question, a fear or a worry to a trusted adult (a teacher, an educator, a coach). In that act, a relationship is built and strengthened. If, instead, young people turn to a chatbot with their vulnerability, that relational opportunity is simply lost. And because the relationship is not formed, they will be less inclined to turn to the adult in future, setting off a progressive cycle of relational withdrawal and growing dependence on technology for needs that are, by their very nature, interpersonal.

Three principles of developmental psychology help to interpret the phenomenon. The first is *the centrality of relationships*: relationships with teachers, peers and family members are decisive for development, and it is not yet clear what it means, in developmental terms, to replace some of their functions with artificial tools. The second is *the non-arbitrary nature of young people's choices*: their behaviour is not merely impulsive or random, but expresses a coherent, if partial, interpretation of who they are and what is expected of them. The third, and the most important looking ahead, is *the time lag,* that is, the fact that the consequences of innovations for young people are not understood until a decade or more after their mass adoption. The case of social media is a clear warning: they burst into young people's lives ten to twelve years ago, and only today are they yielding robust and alarming evidence of the harm done. With AI, things are moving even faster, and reflection on the long-term developmental consequences is even less structured.

2.1.7.3 The family context and school policies

In the Italian context, a particularly significant phenomenon can be observed: young people who turn to chatbots not only for schoolwork, but to seek guidance on important personal decisions and

to ask questions about their identity and their relationships. This observation strengthens the argument that schools should engage with AI rather than avoid the issue, and it raises the question of the role of parents. This is a concern that is largely underestimated in the current debate.

Two recurring patterns are described with regard to the role of parents. In some families, fear of the economic consequences of AI (typical, for example, of the parent who...) is passed on to the child, who arrives at school with a relationship to AI already marked by anxiety and mistrust. In other families, parents are almost entirely unaware of what their children do with AI: they do not know, for example, that their child uses Replika, an AI companion app designed for ongoing emotional interaction, nor that conversations apparently addressed to a friend on Snapchat may in fact be interactions with an AI bot built into the platform. The gap between parents' perceptions and what is actually happening in their children's lives is often considerable. Schools' contact with families cannot be limited to communicating the policy they intend to adopt on the matter: a dialogue between school and family on this subject must be actively built, so as to help parents understand what AI is, how their children use it and how to hold meaningful conversations about it at home.

As for school policies, the case of the United States is instructive. The responses of American schools currently fall into three main types: about 40% have adopted a total ban; about 20% allow use without a structured policy; the remaining 40% have variable solutions, delegated to individual teachers or departments (Howell & Romee, 2025). This inconsistency is a serious problem, and one that is underestimated from a developmental point of view. Research and direct conversations with students show that the lack of clear and stable expectations, which vary from one classroom to another and from one school to another, or which are not made explicit at all, generates a kind of diffuse anxiety among students: they do not know whether the use of AI they are considering, or are already making, breaks the rules or not, and this uncertainty is in itself developmentally harmful.

As regards educational proposals, fully developed answers are not yet available. The most concrete suggestion is that creating spaces of genuine openness and transparency (environments in which young people can reveal, without fear of judgement, that they have turned to a chatbot about sensitive matters, such as those relating to sexuality) is in itself an educational achievement of great value. If young people know they can tell an adult what they do with AI, the adult can start a conversation: 'What did it say? Did it help?' The alternative, namely discouraging the use of AI for personal matters on grounds of data privacy, will only ensure that young people do not reveal what they are doing. The primary aim must be to create the conditions in which this dialogue can take place openly and constructively.

BOX

Evidence from empirical research in the Americas

The results of two studies carried out in Jesuit schools in North and Central America were presented, providing an empirical picture that helps to frame the questions discussed.

The first, conducted in 2024 (Jesuit Schools Network, 2024) with more than a thousand educators, mostly secondary school teachers and some school leaders, produced a particularly significant result: about 60% of respondents stated that their students lacked the tools needed to make ethical decisions about AI. Alongside this answer, however, came an assessment pointing the other way: when asked whether students were in principle capable of such decisions, 60-70% of the same educators answered in the affirmative. The gap between the two answers does not point to an inability on the part of students, but to a lack of adequate guidance, support and structure. The educators wanted to help their students navigate AI ethically and thoughtfully, but did not know how to do so. It was pointed out that these data are now a few years old and that the picture continues to evolve rapidly.

The second study, carried out in spring 2025 (Zhiming, Velez, & Robinson, 2025) with about 1,500 students across thirteen schools of the Jesuit Schools Network, produced five main findings. First, almost all the students said they used AI, describing their use in terms of good intentions: not to copy, but to understand and to tackle difficulties. While allowing for the bias inherent in self-reported data, the study was conducted anonymously by external researchers, and there is broader evidence supporting this picture: a student struggling with a maths problem at nine or ten in the evening cannot phone their teacher, and the AI chatbot is at that moment the most accessible resource. Second, almost all the students used ChatGPT exclusively, and did not recognise as AI other tools in which it is embedded, such as Grammarly or social media recommendation algorithms. Third, most of them said they knew how to use AI ethically, even though they had received no guidance on the matter from either school or parents: they had largely taught themselves through friends or social media platforms. Fourth, more intensive use of AI was correlated with lower confidence in their own academic abilities, although the direction of causality remains uncertain. Fifth, many students expressed marked anxiety about the future, about the replacement of jobs and about a world shaped by AI, and linked this anxiety to their current use of the technology, perceived not as a simple tool but as an agent of transformations that worries them deeply.

2.1.7.4 The weakening of desire and latent critical capacities

A further dimension of the problem concerns the extinguishing of desire, particularly evident in young people today. Earlier generations, faced with the opening of the floodgates of desire brought about by modernity, had responded by ‘running’: everyone was running, no one quite knew where, but they ran. The new generations, by contrast, and all the more so with the digital, seem to have knocked down the walls as well: there is no longer anything to run towards, there is no longer any direction. Many young people simply do not run. On the one hand they are overwhelmed by the

dogma of self-realisation; on the other, with all the digital stimuli, they struggle enormously to grasp their own inner energy and to live it.

Against this background, young people often display latent critical capacities, not fully conscious, which show themselves as a kind of mute rejection of the world of performance and efficiency. This unease is not expressed through explicit conceptualisation, but through non-conforming behaviour that could be read as an implicit message of resistance, a plea for a world that is slower, less performance-driven and more human. Adults struggle to read this signal because they are busy reasoning about the tool rather than about the people who use it.

2.1.7.5 The question of trust

Closely connected with the foregoing is an educational emergency bound up with the question of trust. Education stands between the individual and the world and rests on a relationship of trust. Many students use AI both during the school day and in their free time, and in the latter context it is often seen as a friend, an adviser, a psychologist or a form of help. This dynamic can generate a crisis in the relationship of trust between the person and the source of information, feeding a confusion between authentic relationship and simulation. It remains an open question, however, whether this crisis is produced by interaction with AI or whether, on the contrary, recourse to AI as a privileged interlocutor brings to light a fragility in the relationship of trust that was already present in educational and informational relationships.

This is also the context for the question, always mentioned in cultural debate but in fact underestimated, of the accuracy of information. The distinction between relevant and irrelevant content is a fundamental educational issue. Even before the question of whether the information provided by AI is correct, for which specific skills such as source checking can be developed, there is a deeper problem: a crisis of trust in the adult as a meaningful point of reference. A tension thus emerges between trust placed in the technological object and trust in the human, with the adult gradually losing centrality as a consistent and reliable figure on whom one can rely.

In this sense, the diagnosis cannot stop at a description of young people's behaviour. The desire to escape the risk of relationship cannot simply be put down to individualism: what is being sought, even in its most distorted forms, are forms of integration, ways of placing trust, ways out of the malaise in one's relationships with oneself, with others and with the world. And this is, at a deep level, a problem of the adult world even before it is a problem of young people.

2.1.8 New vulnerabilities: fragile identities, relational bubbles and distress at school

The transformations described translate into new forms of vulnerability that need to be considered on several levels: the long-term shift from individualism to individualisation, the crisis of symbolic adulthood, changes in the family context, gaps in identity, distress at school, and performance pressure mediated by technology.

2.1.8.1 Individualism as individualisation

The historical phase behind us broke down and dismantled the cultural patterns, relational structures and community bonds that held individual existence together. Individualism was born as a culture of the self, but within highly structured cultural, religious and political contexts: there was a culture of the self, but people's actual lives were still embedded in relatively stable relationships. What happened in the last decades of the twentieth century was a further leap: individualism became individualisation, a very concrete, everyday process. An immediate example is that of a typical day: in the morning you leave home, take a tram, go to a meeting, then to the gym, then to other places. The only constant in one's days and weeks is one's own self, which meets many people and many settings without any of them becoming a stable point of reference.

The result is a society of billions of individuals, each convinced of their right to their own existence, to self-realisation and to unrestricted mobility. Organising this reality is a problem of enormous proportions: how do you coordinate billions of individuals moving about freely? From this point of view, the digital and artificial intelligence are the technical answer to that problem. Digital platforms and applications can be described as pseudo-institutions: in practice they perform the same function as traditional institutions, steering and regulating the behaviour of millions of individuals, even though they lack all of their formal constitutive features. Seen in this light, it becomes clear why economic investment is converging so massively on this sector.

2.1.8.2 The crisis of symbolic adulthood and the absence of a hypothesis of meaning

The desire to escape the risk of relationship, and youth malaise more generally, cannot be attributed to technology alone: it points back to the adult world. Erikson's concept of *mature integrity* (Erikson, Infanzia e società [Childhood and Society], 2000) describes the capacity of the adult world to foster broad experiences without blocking them, to bring out concerns and talents, to open up dimensions of reality and to pass on hope. Erikson observed that children will not fear life if their elders do not fear death: a statement that resonates with particular force in an age in which an obsession with longevity and the fear of death are dominant traits of today's adult world. When adults are dominated by these traits, they pass on to young people a lack of hope in the world.

Research on young people in the post-pandemic period reveals something significant: what emerged in their plans for the future was not the absence of an individual project, but the absence of

a context. Institutions, the cultural and structural fabric that ought to give meaning to the individual project, seem to be missing. There are adults, but what is lacking is what might be called a symbolic adulthood capable of inspiring basic trust and of handing on the world as something that still makes sense. Young people perceive with great clarity that the adults around them have no idea what is happening and do not know how to live within it. This perception of inadequacy is devastating: young people have no confidence that adults have anything authentic to say about a world that fills them with anxiety. If this is what the adult world is like, it is inevitable that young people will turn directly to artificial intelligence.

Against this background, youth malaise can also be read as a form of protest: young people sense that the world being built is not the one the adult world claims it wants to build, and to some extent they reject it. What shows itself as malaise is often also a search for new kinds of relationship with oneself, with others and with various dimensions of the world; access to these dimensions, however, is often closed off from the outset.

From a broader theoretical perspective, Hartmut Rosa and Hans Blumenberg have described the acceleration in the number of experiences that can be had within a given span of time as a functional substitute for transcendence: since we can no longer think of a future horizon, the functional substitute becomes the bulimic accumulation of the greatest possible number of experiences in the present (Rosa, 2015). The compression of experience made possible by technology can become precisely this: not an educational potential, but a bulimia of the self. Once the common thread, that is, the hypothesis of meaning, is missing, everything is reduced to an overload without direction, which eventually leads to the estrangement and unreachability that young people widely display today.

2.1.8.3 Changes in the family context and 'illusory listening'

The fragilities observed in the new generations are set within broader changes in the family context. A decisive factor is the fragility of adults themselves. From this comes the risk of so-called illusory listening: the idea of paying more attention to young people than in the past coexists with an implicit request not to bring into the open emotions perceived as disturbing, such as fear, sadness or anger. The shorthand formula *'be yourself, but in my way'* describes a dynamic in which the most difficult emotions are handled by projecting adult anxieties rather than through genuine acceptance.

Alongside this dynamic there is a structural reversal of the relationship between authority and fear, described precisely by Massimo Recalcati (2017): whereas children were once afraid of displeasing their fathers, today it is fathers who are afraid of displeasing their children, and who fear losing their love. This reversal is not a simple inversion of power, but a transformation of the very logic of limits: setting a boundary, saying no, withstanding the child's aggressive or disparaging reaction becomes emotionally unbearable for the adult, not out of indifference but out of excessive emotional involvement. The result is an adulthood that renounces its guiding function not out of moral weakness but out of fear of a relational rupture. One of the most important things the school can do

with parents, then, is to support their ability to 'stay' within that no, to hold the limit even when the child forcefully contests it, knowing that the judgement the child expresses in a moment of frustration is not final, and that with time it can be reconsidered and changed.

2.1.8.4 Gaps in identity and new forms of distress

The new forms of distress (dissociative features, attacks on one's own body and on the bodies of others, acts of self-harm) should probably not be traced today to the normative superego of the traditional family, nor to a simple excess of permissiveness. They should rather be read as signs of gaps in identity: the absence of inner structures capable of containing needs, needs that are often repressed or silenced while, at the level of discourse, people claim to be listening to young people more. In the clinical field, the indication that emerges is to go back to basics through a corrective emotional experience: the underlying issue is not primarily to increase tolerance of frustration, but to respond to a lack of solid inner reference points.

The dematerialisation of relationships amplifies this vulnerability. On this point, it has been suggested that the dimension of the body, which today is increasingly pushed aside, should be decisively restored to its proper value. Young people tend to live in a disembodied reality, with a double standard in language: what is written in chats is not necessarily upheld in a face-to-face encounter. Idealisations spread which collapse when confronted with the concreteness of the real other.

These elements are linked to a broader problem, described as the loss of the connection between work and results. Some young people want to achieve goals without taking on the work needed to create the conditions in which those goals can be achieved, with examples relating to sporting, relational and academic ambitions. A confusion between condition and constraint is also reported: the work required to achieve a desired result is perceived not as a condition attached to a chosen goal, but as an imposed constraint, to the point of being experienced as a violation of freedom.

2.1.8.5 Distress at school, relational bubbles and transitions

A significant indicator is the sharp increase in requests for help from students who are unhappy at school: young people who are often intelligent and capable but who at a certain point no longer want to attend. Two different readings of the phenomenon emerge. The first is clinical, and attributes the phenomenon to mood disorders. The second, interpretively different, reads the refusal of school as an attempt not to fall ill, that is, as a choice to avoid a context experienced as excessively dissonant. At the same time, an increasingly frequent phenomenon can be observed: students with excellent results at the *liceo*[6] who collapse in their first year at university. This is not just a matter of having possibly chosen the wrong course, but of a collapse of identity, linked to the difficulty of giving voice to the authentic parts of oneself.

[6] *Translator's note.* The *liceo* (plural *licei*) is the academically oriented upper secondary school in Italy, attended from about age 14 to 19 and concluded by the national school-leaving examination, long known officially as the *esame di Stato* and popularly as the *maturità*, the name it has officially borne again since 2025.

Difficulties in transitions are intertwined with changes in social experience in a hyperconnected context. The subject's freedom in digital environments tends to be exercised within possibilities preselected by recommendation algorithms, encouraging people to remain within informational and relational bubbles: homogeneous spaces that reduce encounters with difference and make it easier to exclude dissonant positions. The result is a weakening in the practice of engaging with others and, with it, of the ability to argue for one's convictions in front of those who hold different views. The difficulties observed in some students on returning to school after the pandemic can also be read as an outcome of this dynamic: after months spent in controlled and selective relational micro-environments, the real classroom required them to share a common space once more, with positive, neutral and conflictual relationships all present at the same time.

2.1.8.6 Performance pressure, parental control and technology

A further factor amplifying vulnerability is parental control mediated by technology. The present generation is probably the most closely monitored in history, without this amounting to educating or caring: control is equivalent to neither. Some practices linked to mobile phone use, such as the demand to be constantly reachable during school trips or activities, respond mainly to parents' need to reduce their own anxiety by obtaining real-time information on their children's condition and results. In a dystopian but not unrealistic scenario, the risk would not be that of bad parents, but of ever more frightened parents who exercise control out of love, raising questions about the very meaning of that love.

The first problem with this dynamic is the risk that care turns into permanent guardianship, preventing young people from practising autonomy and responsibility. Here the distinction between autonomy and independence is crucial: education should aim at the former and not necessarily at the latter. Autonomy is the subject's capacity to say 'I', to judge, to exercise a critical spirit, to evaluate and compare proposals. An autonomous subject seeks; such a person needs not bosses, but guides, companions, allies and partners. Independence, on the other hand, when detached from meaningful relationships, can degenerate into problematic forms. Today the word dependence is automatically associated with something toxic, whereas there are also positive forms of dependence, linked to relationships of care and trust. The educational horizon is that of a subject who is autonomous but not independent, aware that the good is always a common good.

At the level of the system, this dynamic feeds a second paradox: the family can direct the child's educational experience remotely, while the school remains responsible for the outcomes. When problems arise, responsibility falls on the school, but the practical handling of situations remains in the hands of the family. The result is a situation of responsibility without authority (and of authority without responsibility), in which the seat of judgement lies outside and the direction of education is not genuinely shared.

Third, the use of technology as an instrument of control also generates a shared cycle of anxiety. The parent feels anxious, technology offers means of control such as messages and calls, and the young person perceives an implicit demand to reassure the adult immediately. If the reply does not come at once, the parent's anxiety rises and with it the control, and so the number of messages sent. The young person may react by replying in order to switch off the alarm, or by avoiding a reply or lying in order to manage the parents' anxiety. In every case communication is compromised: it is an apparent control, which generates no lasting relationship, but only a temporary reduction of anxiety, which is bound to return.

A fourth problem concerns the effect of constant connection on processes of growth: it hinders the process of individuation and separation, which is fundamental from a developmental point of view. The absence of spaces that are truly one's own (in silence too, and in positive solitude) makes it difficult to build a boundary between inside and outside and to become a subject. Practices such as constant geolocation, whether declared or not, contribute to this continuous exposure.

A fifth risk is the loss of trust in other adults, fed by the idea that only the family is truly reliable and able to provide care. This approach can produce two opposite outcomes: radical rebellion, or passive adherence to a system in which the other is perceived as an enemy. Hence an invitation to parents not to be jealous of their children's educational relationships, and a reminder of how important it is, in the course of growing up, to meet other significant adults able to play an educational role, not replacing the family but broadening the relational horizon.

Finally, a structural tension between prohibition and everyday use emerges with force. While at school mobile phones are often banned until the end of the day, social life and access to information take place entirely on the internet. Measures such as confiscating phones without explanation may reassure adults, but risk pushing young people even further towards the internet, outside any formative relationship.

2.1.9 Critical issues

The transformations mapped here do not translate automatically into practical guidance: they leave educational communities with a series of structural tensions, from which as many open questions arise. Recognising these tensions is the condition for keeping educational discourse from sliding towards simplistic answers, on one side or the other.

- **Tension between enthusiasm and technophobia.** Public debate tends to polarise around two extreme positions, but the pharmacological reading of technology shows that both are inadequate. How can the educational community cultivate and pass on a posture of measured enthusiasm, openness without naivety and engagement without fanaticism, in a cultural context that pushes towards polarisation?

- **Tension between surface learning and deep learning.** Digital environments favour fast, immediate and procedural ways of learning, whereas the most formative competences require long periods of time, sustained concentration and working through error. What design of the school day, of homework and of study time can support deep learning without claiming to abolish the forms of rapid learning that are part of the way the new generations think?
- **Tension between delegation and formation.** Every function delegated to the machine tends to be gradually lost, but selective delegation is also a skill that has to be learnt. How can we distinguish, in everyday educational practice, between delegation that amplifies cognitive capacities and delegation that erodes them?
- **Tension between internalised and externalised knowledge.** Universal access to information devalues knowledge as accumulation, but internal knowledge remains essential for turning information into a real capacity for action. What balance can the school strike between what students must internalise and what they can legitimately externalise to devices?
- **Tension between the human and the function.** The spread of AI reinforces an implicit model that reads the person as a set of processes and measurable outputs. How can the school resist the temptation to treat students as learning machines and keep alive a vision of the human being as a thinking body?
- **Tension between authenticity and profile.** The culture of modernity made authenticity the supreme normative value of the self, whereas technological contexts tend to replace the authentic self with the profile. What experience of the self can the school offer students, at a time when identity is increasingly built through the mediation of systems that encourage its fragmentation?
- **Tension between technological predictability and relational imperfection.** Human relationships are structurally imperfect, whereas chatbots offer predictability, availability and an absence of judgement. How can the school uphold the formative value of relational imperfection in a context in which a perfect technological alternative is always available?
- **Tension between control and care.** Technology offers instruments of control that can be mistaken for care, whereas growing up requires spaces of unsupervised autonomy. How can we distinguish genuine educational care from forms of control that, though well intentioned, end up hindering the processes of growth?
- **Tension between adult fragility and the demand for adulthood.** Youth malaise points at a deep level to a fragility in the adult world, yet at the same time it calls for adult figures able to hand on the world as something that still makes sense. What work can the educational community do on itself in order to build and pass on that symbolic adulthood without which every educational proposal risks having no purchase?

- **Tension between the school's relevance and widespread access to knowledge.** The school loses relevance when it remains primarily an agency for transmitting content, but it struggles to reposition itself in an ecosystem in which access to knowledge is widespread. What makes the school today a recognisably different and necessary place, and how can this difference be made visible and credible?

2.2 Technology and the change in the pedagogical paradigm

Having set out the framework of the transformations under way, the decisive question becomes: what meaning can the educational process recover at a time marked by the digital transformation? This is not a matter of updating tools or digitalising existing practices, but of the very meaning of educating. This chapter develops a proposal based on the contributions of the speakers we heard, in seven steps: the starting point (the crisis of credibility of the school as an institution), the recognition that what is needed is a paradigm shift and not a mere update, the identification of the aim (cultivating a living intelligence in a subject discovering themselves), the condition (proposing a hypothesis of meaning with selective courage), the posture (education as convocation), the heart of the proposal (the educational relationship) and the quality of the adult figure as a witness able to pass on trust.

Table 2. Content map: technology and the change in the pedagogical paradigm

Section
2.2.1 The crisis of credibility of the school as an institution
2.2.2 Why a paradigm shift is needed
2.2.3 Cultivating a living intelligence in a subject discovering themselves
2.2.4 The educational condition: proposing a hypothesis of meaning with selective courage
2.2.5 The posture: education as convocation
2.2.6 The heart: the educational relationship as the ground of change
2.2.7 The adult figure: mature integrity, basic trust, witness

2.2.1 The crisis of credibility of the school as an institution

The transformations described translate into a specific crisis of credibility for the school as an institution, which manifests itself on two levels: the way students perceive school, and the transformation of the educational role.

For some students, school appears to be an obligation that is formally present but inwardly of little significance, remote from their own desires. The risk is that school loses relevance if it remains primarily an agency for the mere transmission of content.

The question of what it means today to recognise that someone knows, is competent and can teach someone else becomes central. The internet and artificial intelligence make this question even more evident, but it had already been raised by television and the society of the image.

The crisis of credibility directly affects the educational role. This issue concerns both students and adults. It is possible to accompany, to guide, to teach; yet if learners do not recognise the competence of those who educate them, the educational role risks becoming a component of the adult's individual project rather than a real educational relationship with young people.

2.2.2 Why a paradigm shift is needed

The first choice that guides the whole chapter concerns the nature of the response that the school is called to build. The proposal that follows starts from a basic conviction: what is needed is not an update of tools, but a paradigm shift. This choice rests on four interpretive premises that are worth making explicit before going into the substance of the proposal.

2.2.2.1 A systemic framework for reading the relationship between young people and technology

The first premise concerns the very way in which the question is framed. Urie Bronfenbrenner's Ecological Systems Theory (2002) offers an antidote to a pervasive tendency in schools: that of addressing technology-related issues by focusing exclusively on the individual student, that is, on their choices, their behaviour and their ethical responsibilities. This approach overlooks the fact that every individual is shaped by a multiplicity of overlapping and interacting systems: peers, family, school, the media, prevailing cultural norms, the wider political context. For example, a student who uses AI to cheat is not simply making a wrong individual choice; in most cases they are responding to intense academic pressure, to forms of isolation and loneliness, or to cultural messages about success and personal worth that reach them from every direction in their environment. Any educational intervention that ignores this systemic complexity is bound to remain superficial.

2.2.2.2 Public debate on AI in schools and its hidden dimensions

A second premise concerns the structure of public debate on AI in schools. On the surface, it appears to be organised around two dominant and mutually contradictory narratives: on the one hand, concern about cheating and the need to curb it; on the other, the urgency of preparing students for the skills required by the labour market. Young people absorb both messages at the same time and are left alone to manage a contradiction that is given no space for collective reflection: AI is at once the road to the future and an illicit practice. A third theme, not sufficiently addressed, is that of relationality, that is, the increasingly concrete possibility that students may interact with chatbots as social companions.

There is, however, an underlying level, largely neglected, made up of three dimensions that rarely enter school conversations but that profoundly shape young people's relationship with technology. The first is the economic and capitalist dimension: AI is not a natural resource discovered in the world, but a set of commercial products created and distributed by companies with specific interests. The second is the dimension of cultural norms: what is considered legitimate or illegitimate

use of AI is not culturally neutral, but reflects assumptions and hierarchies of values that ought to be made explicit. The third is the existential dimension: narratives linking the development of AI to scenarios of radical crisis for the human species are in wide circulation, and these narratives, however one judges them, form part of the cultural background against which young people live and interpret technology. These dimensions must be brought explicitly into conversations with students, rescuing them from the invisibility in which they remain when the discussion is reduced to the two dominant poles.

2.2.2.3 AI as preparation for the future or as part of the present: two educational postures

A third premise concerns a basic interpretive distinction, which gives a different orientation to the whole pedagogical proposal. On the one hand, there are those who treat AI as relevant to education because it is a means of preparing for the future, for skills and for the labour market. On the other, there are those who recognise that AI is already an integral part of students' present lives, and that the way they relate to it now, in their daily and formative experience, is itself already the life that counts. It is within this second perspective that Pope Francis's view belongs: among the fundamental aims of education he identified the search for meaning and the building of relationships, aims that are measured not by future results but by human experience as it unfolds.

Assuming that AI is already an integral part of students' present lives is not only a choice of methodological posture: it implies a deeper rethinking of the very meaning of the educational journey. Study is not an instrumental stage on the way to a future result, but is the piece of reality that the young person is asked, at that moment, to live and to go through. As such, it can bring satisfaction and meet the person's needs in the present, without life seeming to begin in earnest only at some later time. The logic of postponement (at primary school you study for middle school, at middle school for secondary school, at secondary school for university, at university for work) risks building a school experience in which the present is always the antechamber of something else, and in which students learn to defer the meaning of what they do. Childhood still knows the time of play and of being present in the present; with entry into the condition of being a student, a progressive colonisation of the present by the future tends to set in. Restoring to the present its density of life, while maintaining the element of preparation that characterises every stage of growth, is one of the most concrete challenges that education is called to face, in the context shaped by the technocratic position promoted by the debate on AI. In this direction lies the idea of action (with the related task of 'training for action') put forward by Go & Atienza (2025), according to which learning is not only guided by reflection but also oriented towards action, and towards an action that must not come 'later', at some indefinite time, and therefore be almost irrelevant to the school journey. The authors point to a twofold shift: from covering the whole syllabus to uncovering meaning and deepening understanding through reflection, and from mastery of content as an end in itself to the ability to use it effectively and strategically in reality through action. What makes this perspective consistent with

what is argued here is that the action for which students are trained, understood as the outward expression of a reflected experience, is not postponed to a later time: students are asked to apply what they learn straight away, so that they can respond to the questions of the world from now on, and not only in some undetermined future. Preparation, understood in this way, does not colonise the present for the sake of an indefinite future but inhabits it, recognising in study a piece of reality already capable of generating meaning and of finding expression in a contribution to the community.

2.2.2.4 The absence of an adult context

A fourth premise concerns what has been identified as a possible root of contemporary youth malaise. Post-pandemic research has shown that what emerged in young people's plans for the future was not the absence of a project, but the absence of an adult context. Young people find themselves in a void: there are adults, but there is no symbolic adulthood capable of inspiring basic trust, of handing them over to the world with the words 'go ahead'. Passing on hope and placing young people within unconditional foundational relationships, relationships that convey an idea of dignity and worth not tied to performance, is the point from which we must start again. This diagnosis, already set out in the previous chapter, is the decisive pedagogical premise: youth malaise is not only a symptom to be managed, but a demand for adulthood that the school is called to recognise and to answer.

2.2.3 Cultivating a living intelligence in a subject discovering themselves

With the premises established, the first step of the pedagogical proposal concerns the aim: what is the school called to cultivate today? The answer developed in the discussion at the meetings unfolds in three converging directions, which must be held together: the cultivation of a living intelligence, the building of the cognitive and reflective self, and the formation of human beings able to remain custodians of values in a world in which autonomous artificial intelligence systems, capable of acting and taking decisions in people's place, are becoming ever more widespread.

2.2.3.1 Living intelligence as a horizon

The first direction concerns cultivating what may be called living intelligence: the kind that includes the dimensions excluded by reductionism, namely emotion, affection, meaning, bodiliness, awareness of one's own finitude, the capacity to be with oneself and with uncertainty, the capacity never to coincide with one's own answer. As Hannah Arendt (2003) observed, even in the most oppressive totalitarian contexts there were non-participants, people who had the courage to be with themselves: what the great systems of domination over human beings erode is precisely solitude understood as the capacity to be with oneself, not to be in the constant presence of an otherness that converses, interacts and manipulates. Living intelligence is the kind that never coincides with its own thought, its own position or its own answer: it remains open, carrying within itself a question of

meaning and significance that is constantly open. In this direction one may also recall Daniel Patrick Huang's (2024) reflection on spiritual freedom and on *'pre-evangelisation'* from an Ignatian perspective. Huang stresses that, in a cultural context marked by scattered attention, by consumption and by difficulty in reaching the depth of experience, the educational task does not consist first of all in providing ready-made answers, but in creating the conditions in which young people can recognise their own deepest questions and their own humanity. Spiritual freedom, in this sense, does not simply denote a denominational dimension, but the possibility of not being immediately captured by stimuli, automatisms and prefabricated desires, so as to get back in touch with one's own inner life and with what makes a life worth living. This is precisely the point on which the school is called to take its stand, however demanding that may be.

A conceptual foundation for this living intelligence is offered by the Augustinian triad of time: memory, attention and expectation. Augustine describes time not as a succession of measurable instants, but as the inner structure of human existence: memory, which gathers the past and gives it continuity; attention, which fully inhabits the present; and expectation, which reaches out towards what is not yet. These three acts are not ornaments of experience, but what makes existence human, and they are precisely the dimensions that the machine cannot perform in our place. The memory that technology externalises is not biographical elaboration; the attention that algorithms capture and redistribute is not attention as the capacity to stay with something; the aspiration that recommendation systems anticipate and prefabricate is not desire as an inner striving towards what one is seeking. Cultivating a living intelligence means deliberately cultivating these three acts: not as additional objectives of the curriculum, but as an anthropological structure that runs through every educational practice.

2.2.3.2 Building the cognitive and reflective self

The second direction concerns the building of the cognitive self. The technological transformation calls for a rethinking of educational objectives: curriculum planning tends less and less to coincide with the mere transmission of content and more and more with a process of personal growth, which can be summed up as helping the individual to become a person. This dimension is becoming increasingly important in a context marked by the acceleration of crises and their overlapping, with amplified effects at social and individual level.

In this scenario, the most precious asset of an educated person may lie not only in knowledge and technical skills, but in having developed an adaptive and reflective cognitive self: a personal orientation capable of grasping the link between knowledge and action in the world, of going through transitions and crises, and of sustaining one's motivation even amid uncertainty. The awareness that possessing knowledge amplifies and sustains the capacity for personal and collective action tends itself to become a competence, one that needs to be made explicit and taught.

This perspective is accompanied by a deeper orientation, which constitutes the most solid safeguard against excessive cognitive delegation: pride in one's own intellectual voice and in one's own identity. When students are genuinely proud of their own thinking, of their ability to interpret, to choose their words, to build an argument, the temptation to outsource that thinking to a machine naturally becomes less attractive. The safeguard, from this perspective, is not primarily an external rule or a school policy, but an inner orientation of pride in one's own cognitive capacity. Cultivating this pride in students becomes one of the school's most important missions, because without the deeper inner motivation of cognitive pride, any rule on academic integrity remains structurally fragile.

2.2.3.3 The human being as custodian of values

The third direction concerns the role of the human being as custodian of values and as a cultural subject. The more automated systems acquire autonomous operational capacities, the more decisive human responsibility becomes in steering their ends, criteria and consequences. The role of the human being may be not so much that of custodian of knowledge and techniques, as that of a subject who observes the world as acted upon by automated systems and intervenes to steer it in a direction consistent with their own vision, opinions and values. Educating for mastery of the dimension of values thus becomes one of the fundamental missions of the school.

2.2.4 The educational condition: proposing a hypothesis of meaning with selective courage

The directions outlined require a basic condition if the discussion is to translate effectively into educational orientation: the availability of a hypothesis of meaning. This is not an ideologically imposed certainty, but a hypothesis, something that an educational community upholds as a proposal and puts to the test in its shared life. Knowledge, skills and relationships take on meaning when they are interpreted in the light of a common thread that the educational community proposes as a key for reading oneself and the world.

Without this hypothesis of meaning, the risk is to remain trapped in the acceleration described in the previous chapter (see 2.1.8.2): the bulimic accumulation of the greatest possible number of experiences in the present as a functional substitute for transcendence, in which everything is reduced to an overload without direction, leading to the experience of estrangement and unreachability.

Proposing hypotheses of meaning therefore requires selective courage: upholding them while knowing that they are hypotheses, knowing that it is possible to act otherwise, but with the reflective conviction that some hypotheses show a greater capacity than others to interpret reality, to guide action and to withstand the test of experience and of truth. This is not naivety, but a conscious wager. The hypothesis of meaning, however, is not a formula to be declaimed: it is translated and tested in the concrete practices through which the educational experience is built and accompanied.

2.2.4.1 From transmitting content to offering meaning: the school as a place

On this basis the school takes on a function that is not exhausted by the transmission of content. It becomes a place of meaning: the place where what happens outside finds criteria of interpretation and orientation, and where a critically grounded citizenship, digital citizenship included, is promoted. Citizenship of this kind requires not only technical skills, but critical, ethical and social competences for decoding, evaluating and acting consciously in the digital space, also in relation to phenomena such as disinformation and inequalities of access.

It is against this horizon that the encyclical letter *Magnifica Humanitas* takes on particular significance, recalling the school to its highest vocation: to be the place where new generations can learn to seek and love the truth, and to reflect on the meaning of life and the dignity of every person (Leo XIV, 2026). From this perspective, the school is not only a space for functional learning, but an environment in which knowledge is brought back to the question of the meaning of existence and to the building of a more human relationship with oneself, with others and with the world.

It follows that the school is called to offer and generate experiences that form and transform the person, helping to build the framework of meaning through which reality can be read. It is crucial to distinguish between simply 'doing activities' and 'generating experiences': activities may be many, but it is experiences, those that leave a mark on the person and transform them, that form the heart of the educational process. Attention must also shift from meaning in a generic sense to significance, understood as an anchoring in the concrete reality of students, in what concerns them in the present of their lives.

The value of slow time and of depth as ways of being fully human is then understood not as a simple nostalgic resistance to the speed of the present, but as an essential educational condition. Here too, *Magnifica Humanitas* offers a very powerful point of reference, placing the question of attention within a broader intellectual challenge that concerns knowledge and wisdom: in a context marked by the incessant flow of information, fragmentary knowledge multiplies, but it becomes harder to grasp reality as a whole, to ask questions of meaning and to develop authentic critical and creative thought. It is in this framework that the encyclical warns of the risk of a possible dehumanisation, in which people may 'know many things' and yet struggle to find direction in their lives, when information and knowledge are no longer connected within a horizon of meaning (Leo XIV, 2026). This is why the school is perhaps the place where it still makes sense to resist the tyranny of the immediate, promoting a genuine hygiene of attention[7]: rhythms that include silence, in-depth study, reading and judicious discussion, without which inner freedom too risks being compromised. Slowness, then, is not a relic of the past, but a condition for turning information into knowledge, knowledge into judgement, and judgement into direction for one's life.

[7] *Translator's note.* The Italian text of the encyclical (no. 146) speaks of 'una vera igiene dell'attenzione', literally 'a genuine hygiene of attention'; the official English translation renders the phrase as 'a genuinely healthy attitude'.

2.2.4.2 The school as a laboratory of cognitive resistance

Alongside this function of orientation and of producing meaning, there is a dimension that deserves to be named more sharply: the school as a laboratory of cognitive resistance. The phrase does not denote a posture of rejecting technology, nor a utopia of digital-free spaces, but something more precise and more demanding. It means recognising that human intentionality is structurally weaker than the force of the machine, and that the idea that technological practices can be steered through conscious and critical use alone is an insufficient position: not because it is wrong in principle, but because it underestimates the power of the tools it is up against. The school as a laboratory of cognitive resistance is therefore the place where the dimensions that the digital tends to erode are deliberately safeguarded and activated: the body, relationships, imagination, critical thinking, doubt, the capacity to be with oneself. It is not enough to bring technology into the classroom with good formative intentions: authentic experiences that technology cannot produce must take place within the school, and revealing how the machine works must itself become an explicit educational objective.

2.2.5 The posture: education as convocation

The hypothesis of meaning must have an impact on practice. It translates into a concrete posture on the part of the teacher through a choice with profound pedagogical consequences: education as convocation, not as command.

2.2.5.1 School as a place of 'appointments'

The starting point for understanding what it means to educate as convocation is the experience students have of school. Listening to young people, a recurring image frequently emerges: school as a jungle to be crossed while dodging traps and ambushes, a place where one is exposed to unpredictable threats rather than invited to an encounter. This image does not necessarily describe hostile intentions on the part of adults, but a real experience that says something precise about the quality of everyday school life. The educational proposal set against this image is that of the school as a place of appointments: a space in which a genuine encounter can take place, not a command or an order, but a proposal that one can embrace because one glimpses its value for oneself.

The distinction between ambush and appointment is not rhetorical: it describes two radically different structures of the educational relationship. In an ambush one suffers something unforeseen and potentially harmful; at an appointment one goes to meet something one has chosen to encounter, with a heart full of expectation. The school as a place of appointments requires every educational proposal to be framed as a convincing offer, which students can embrace because they recognise its worth for themselves, not as an obligation to which they must submit.

2.2.5.2 Convocation and the new that happens

At the level of educational posture, the idea of education as convocation emerges: not command, nor discipline in a merely dutiful sense, but the possibility that something good may happen for oneself and for others through commitment to a shared task. Within this framework, rules too make sense when they are brought back to their purpose, namely the common good and the possibility of working and growing together, avoiding a moralistic drift that separates the norm from its meaning.

Closely connected with this posture is the theme of the new that happens: experiences in which the adult leaves room for what may emerge from the encounter between what the teacher brings and what the students put into play. At this level, Daniel Patrick Huang's contribution helps to clarify the properly educational nature of the encounter: in the Ignatian tradition, it arises not first of all from the transmission of an answer, but from a presence capable of listening, discernment and respectful entry into the world of the other (Huang, 2024). The adult, then, does not occupy the entire educational stage, but makes possible a space of recognition, in which students can emerge not as mere recipients of content, but as subjects called to have their say within a shared journey. This is a posture that recognises the student as the bearer of a contribution of their own and the adult as a figure able to welcome it and draw out its value within the shared journey. Without a readiness to recognise this reciprocity, mediation risks being reduced to the repetition of predetermined content, losing its generative capacity.

The posture of convocation requires of the teacher a practical translation that can be described as a deliberate step back: not indifference or abandonment, but an intentional withdrawal that leaves room for what may emerge from the encounter. This space is not empty: it is inhabited by the presence of the adult, who remains within the process while giving up the attempt to govern every step of it. In this connection, Huang offers a particularly significant formulation of the educational task: it is not possible to deliver an answer where a question has not yet matured. This is why the adult's step back is not a renunciation of responsibility, but a more demanding form of presence: the adult safeguards the conditions in which the question can surface, in which the encounter is not replaced by performance, and in which what happens is not reduced to carrying out a path already entirely mapped out (Huang, 2024). The distinction is crucial, because stepping back implies trust and the acceptance of risk, the risk that what emerges may not correspond to what was expected. This is precisely what Luigi Giussani (1977) called the *risk of education*: to educate means to address a proposal to the freedom of another, who remains free to test it and make it their own or to reject it, so that claiming to guarantee the outcome in advance would mean denying the very freedom on which all education is founded. This acceptance is the condition for students to take on responsibility and generate processes of their own. An initial phase of confusion and unease is often a natural part of this space: not a sign of failure, but the moment in which something unpredictable is taking shape. This posture is not reserved for special or extracurricular projects: it also concerns the ordinary teaching of content that is repeated year after year. The new does not arise from the content itself,

which remains the same, but from the teacher's attitude and from the encounter with ever different students. Maintaining an attitude of expectancy and openness, giving up the illusion of occupying the whole space, is the condition for the new to happen even within repetition.

2.2.5.3 Three principles of mediation: intentionality, meaning, transcendence

The shift from doing activities to generating experiences finds its practical form in three principles that guide educational mediation. The first is *intentionality*, which should be made explicit even when it is implicit in the curriculum. Every educational proposal carries with it a formative aim that deserves to be made visible: asking why this activity and for what formative purpose is the precondition for the activity to become a meaningful experience rather than being reduced to the completion of a task. The second is *meaning*, which requires care for language and for shared references, especially in diverse classes with different cultural backgrounds. Building meaning is not an automatic operation: it presupposes attention to the way words are understood, to the network of cultural references in which they sit, and to the ability to grasp what is really at stake for the listener. The third is *transcendence*, understood as going beyond the immediate: from the here and now to a forward-looking dimension, in which knowledge becomes competence when it can be transferred and used in different contexts. It is in this step that learning moves beyond the horizon of the single task and takes root in the student's biography as a resource for facing new situations.

2.2.5.4 The reflective step between emotion and action

A cross-cutting lever of educational mediation concerns the reflective step between emotion and action. From a formative perspective, a sequence is proposed that reintroduces judgement and thought between impulse and behaviour: I sense, I feel, I think, I act or do not act. The decisive element is 'I think': when this step is missing, a short circuit occurs between stimulus and action, producing immediate and disproportionate reactions. This yields a concrete indication for the school, which is called to support the building of this step explicitly and to strengthen the capacity for judgement before action in its educational pathways. This is not a side concern, but a dimension that runs through all teaching and relational practices: every occasion on which students are encouraged to pause, to name what they sense, to recognise what they feel and to think before acting is an occasion on which the school exercises its deepest formative function.

2.2.6 The heart: the educational relationship as the ground of change

Meaning, posture and principles of mediation are all played out on a single ground: the educational relationship. The digital transformation cannot be read as a mere technological update: the central pedagogical question concerns the school's capacity to keep the educational relationship at the centre of the formative process, and in particular the role of the teacher as the figure through whom this relationship is established and takes shape. The school continues to be a place of inten-

tional and meaningful relationships, of mediation between forms of knowledge and between generations, of the construction of meaning, and the authentic (and real, not virtual) encounter between teacher and student is the precondition for learning to have continuity and for personal growth to find real support.

2.2.6.1 Recognising the student: starting from the question 'who are you?'

The quality of the educational relationship hinges on an essential criterion: starting from the question 'Who are you?', on the assumption that educational choices, what is done and what one decides not to do, must be measured against the actual functioning of the real student in front of us. Although the language of accompaniment and of the centrality of the subject is widespread, in practice messages geared to adaptation sometimes prevail, along the lines of 'I understand you, but this is how the system works'. When this adaptation succeeds, it can turn into over-adaptation, with outcomes reduced to performance and marks, and with a hidden cost for students, who learn to conform rather than to recognise themselves.

Investment in guidance can also become ambiguous, if many re-orientation processes depend on contextual variables such as the class group or the class council[8] rather than on any real unsuitability of the course of study. Teachers are called to ask themselves which reading of the student actually underpins their decisions: one that starts from the question 'who are you?' or one that starts from the question 'this is how the system is: will you adapt?'. It is on this dividing line that the quality of educational recognition is decided.

2.2.6.2 Engagement, empowerment, partnership

The educational relationship is a lever for rebuilding a school experience in which students perceive themselves as part of a cultural and formative process. The new generations, who have grown up in the communication society and have been immersed since childhood in wide relational networks, display relational skills in forms that are new compared with the past: rather than a widespread challenge to adults, what often emerges is a demand for relationship that can be a decisive resource for education systems. When young people meet educational figures capable of real listening, accompaniment and authority, from teachers to school leaders, from coaches to psychologists, they often show a willingness to follow them over time, regardless of the subject or formal role. This indicates that the quality of the teacher as a reference figure is already in itself a fundamental formative variable, all the more so when combined with the specific subject content.

The partnership between teacher and student calls for a clarification that radicalises its meaning: it should be said that neither the student nor the teacher is at the centre of the educational process. At the centre, rather, is what happens in their relationship, the teacher-learner pair as an event in progress. This formulation rules out two opposite tendencies that keep resurfacing in pedagogical

[8] *Translator's note.* The *consiglio di classe* (class council) is the body made up of all the teachers of a class, together with parent and, in upper secondary school, student representatives, which coordinates teaching and assessment for that class.

debate: teacher-centred teaching, with the teacher as a transmitter of content to passive recipients, and student-centred teaching, with the student as a consumer of tailor-made experiences that do not open them up or challenge them enough. Both miss the essential point: without the teacher's initiative there is no transmission of knowledge, and without the student's initiative and active involvement there is no learning. To learn means to take, to grasp, to make something one's own; and this act cannot be produced from outside, nor simply facilitated. What can happen, when the conditions are right, is an encounter between parties eager to establish a relationship, from which something emerges that did not exist before. It is this dimension, which neither the teacher's teaching techniques nor any technological tool can replace, that constitutes the irreducible core of the educational process.

The new generations prove more engaged when they are given responsibility and involved, whereas an exclusively prescriptive model no longer seems adequate. When the connection is made, students more readily enter into dynamics of responsibility, continuity and process, feeling part of the formative journey. At the same time, a gap in learning is reported, perceived by young people and also observable in non-formal educational contexts such as companies and parish youth centres (*oratori*), which work better when young people are called upon and actively involved; by contrast, a predominantly controlling model can contribute to the disconnect between formal success at school and subsequent transitions, in particular entry to university. The teacher, from this perspective, does not transmit content to passive recipients: the teacher is a partner who engages, empowers and involves, building with the student the conditions in which learning becomes a shared process. Partnership does not reduce the formative asymmetry, it presupposes it, but transforms it from a relationship of control into a relationship of accompaniment, while keeping the distinct roles clear.

2.2.6.3 Body, emotions, language: literacy in what goes unnamed

The present generations have grown up in a system characterised by the anticipation of experiences, by continuous and accelerated immersion in relationships and by hypercommunication. The result is a relational competence often understood as the ability to pick up immediately on the needs and functioning of others, which is sometimes accompanied, however, by a gap in literacy about one's own emotions. This points to a specific responsibility for teachers, who are called to regard emotional literacy not as the exclusive domain of the psychologist or of specialist figures, but as a dimension that runs through ordinary teaching and relational practice.

The encounter with an adult who listens and genuinely asks the question 'Who are you?' is associated with a rapid reduction in anxiety and with greater willingness on the part of the student to enter into a shared journey. Teachers who listen in this way perform a function that is already formative in itself: they help students to name what they sense, to recognise what they feel, and to put into a shared language what might otherwise remain confined to symptoms or behaviour without words. The underlying question, then, is whether school and society are able to offer young people adults

capable of real listening, accompaniment and authority, without reducing the relationship to control, marks and sanctions. In a context of artificial intelligence, distance learning and accelerated social change, the educational wager comes down to the possibility of building authentic relationships, capable of recognising young people's deep needs and of not producing responses aimed mainly at reassuring the adult world.

2.2.6.4 Relational discernment as an operational model

An operational model that gathers and integrates the dimensions described so far might be called relational discernment: developed within Ignatian pedagogy, it offers a frame of reference for navigating technological complexity in educational settings. The model is structured as an iterative cycle of four moments: clarifying fundamental educational values and goals in the light of a wise observation of the context; planning how to address or incorporate technology in the light of those values; concrete action, which actively involves students in the process; and collective reflection on what has happened, before starting the cycle again. In this model iteration is not a limitation but a structural necessity, and even before that a disposition: on the one hand, the consequences of technology for formative processes cannot yet be fully known, so the continual return to discussion is an integral part of the method rather than a symptom of incompleteness; on the other, the cycle expresses an openness to the new and a reflective posture that becomes a habitus, a stable way of inhabiting educational practice rather than a response to temporary uncertainty. The promotion of the constant reflexivity characteristic of Ignatian pedagogy becomes a fundamental tool for inhabiting the complex transformation we are living through.

The decisive dimension of this model is that the relationship between educator and student is its indispensable foundation. It is within that relationship that an open and transparent conversation about technology becomes possible; and it is that conversation that enables genuine cognitive discernment, not a discernment that can be imposed, but one that can be cultivated through the quality of the bond. What takes shape in this way is not a solitary exercise on the part of the student, but a dynamic of shared discernment: teacher and student seek the truth together and identify the choice to be made, on the basis of a clear division of their respective responsibilities. *Cura personalis*, understood as attention to the whole person and not only to academic performance, thus emerges not as an added value but as the condition of possibility for the entire process. The resulting sense of belonging has documented positive effects on many dimensions of development; and one of the most serious concerns about the indiscriminate use of technology (and of AI in particular) is that it risks eroding precisely that relational fabric, producing students with better academic results but less able to feel part of an educating community.

The notion of the educating community is given explicit formulation in the Apostolic Letter *Drawing New Maps of Hope* (Pope Leo XIV, 2025), according to which education is a collective endeavour

and no one educates alone: it is described there as a 'we' in which teachers, students, families, administrative and service staff, pastors and civil society converge (no. 3.1). It follows that the shared discernment outlined here, while finding its primary place in the relationship between teacher and student, is not exhausted by it, but involves the whole body of people who contribute to the educational process. On the one hand, it is precisely this 'we' that prevents educational practices from stagnating in the repetition of what has always been done (no. 3.1); on the other, the search for truth is itself a communal undertaking (no. 3.2). The breadth of the educating community is therefore a condition both for the renewal of practice and for the search for truth, and in this second sense it grounds the shared character of discernment.

2.2.7 The adult figure: mature integrity, basic trust, witness

For the educational relationship to be what has been described, a specific quality is required on the part of the adult: integrity. This is where pedagogy meets its most demanding condition, because it asks teachers to be what they propose, not merely to propose it. Four dimensions articulate this quality: mature integrity as an existential posture, the professional posture as its practical translation, the transformation of the teacher's identity into that of a designer of learning, and the specific space of the adult in a context dominated by technology.

2.2.7.1 The adult figure as witness

Recognising the student requires, on the adult's side, what in Eriksonian terms is called mature integrity (Erikson & Erikson, 1999): the capacity of the adult world to foster broad experiences without blocking them, to bring out concerns and talents, to open up to dimensions of reality, to pass on hope. It is a quality that directly challenges the teacher, because it is in the space of the everyday relationship that this integrity becomes perceptible to students and helps to build the basic trust without which any formative proposal risks failing to take hold.

The crux concerns teachers personally, because the professional posture mirrors the existential one: the integrity with which one stands in the classroom cannot be separated from the integrity with which one inhabits one's own time. This is the ground of the perspective of Johnny Go and Rita Atienza (2025), for whom teaching is an intrinsically personal task: however important techniques and strategies may remain, effective teaching can never be reduced to them, because it is the person of the teacher that is decisive. Just as students inevitably bring their own context into the classroom, teachers too bring their own lives: their joys and hopes, but also their worries and anxieties, come into the classroom with them. This is why awareness is required not only of the students' context but of one's own, together with constant care for one's inner life: taking care of oneself and remaining a whole person is the condition for being able to care for students and to help them, in turn, to become whole persons.

Two concepts firmly rooted in empirical research help to clarify this dimension: belief in the human person, understood as basic trust in the experience of the human species, and belief in the future of humanity itself (symbolic immortality), that is, the sense of taking part in a horizon that exceeds the individual life. These constructs belong to empirically tested explanatory models and point in a precise direction: the adult presence that educates is one capable of passing on trust in the world and in the human journey. The teacher thus emerges as a witness to an adulthood that carries this trust in the way it stands in the classroom, and which for that very reason is able to hand it on.

2.2.7.2 Professional posture, control and satisfaction

The teacher's professional posture is central to the quality of the educational relationship. Among the risk factors that limit the effectiveness of educational action are educational performance anxiety, short-term measurement and the expectation of control. This is a posture that, while often stemming from legitimate concerns, tends to turn the educational relationship into a dynamic of surveillance and checking, weakening its formative power.

Education is an indication of direction that cannot be imposed: the student's commitment depends on recognising that it is worthwhile for them, that is, on the meaning the student attributes to the path proposed. Within this framework, the teacher's professional satisfaction needs to be detached from numerical outcomes and reconnected to more substantial dimensions: subject expertise, critical review of one's own work, further study and the quality of the educational relationship itself. This is a repositioning that affects the teacher's professional identity and the sustainability of their work over time.

This reconnection of professional satisfaction is matched by a clarification about the time in which teachers inhabit their role. The teacher's tense is the future perfect: I shall have been a teacher if someone will have learnt, if someone will have been transformed with me. Being a teacher is not a stable state, measurable in the present through marks and performance, but a happening that binds teacher and student in a shared experience of transformation. This does not translate into teachers judging themselves (have I done enough?) but into a form of attention directed towards the student over time: the transformation that counts is not always immediately visible, and it often emerges when the student has already moved on to another class or completed their course of study.

2.2.7.3 The teacher as designer of learning

Alongside the existential dimension, the quality of the adult figure translates into the need for a transformation of the teacher's identity, which the Ignatian pedagogical tradition describes first and foremost, especially today, as that of a designer of learning rather than a transmitter of content. The Ignatian paradigm, with its articulation of experience, reflection and action, is in this sense a pedagogy of design: the teacher intentionally builds the conditions in which an experience can happen, in which it can be reflected upon, and in which reflection can give rise to action that transforms the

learner. Within this framework sits the more recent approach of *learning by refraction* (Go & Atienza, 2025), which places the student's voice at the centre of the process: the interpretation and perspective of the individual student are not merely admitted into the formative journey but become a constitutive part of it.

The conception of the teacher as designer, which draws on the reflections of Herbert Simon (1996) and Donald Schön (1983) on professionals as people engaged in a science of design, gives teachers the task of transforming what is, what students do not yet know, into what ought to be, namely learning. The question that guides their work is not in the first place what content to transmit, but what environment and what kind of experience can lead students to engage with the reality they are studying, until they understand it and respond to its challenges. Under this guidance, students are encouraged to act as active researchers who question both the environment and the experiences proposed to them, rather than as passive recipients.

This design identity is accompanied by two complementary roles. The first is that of facilitator of reflection: teachers deliberately hold back their own expertise, refrain from providing ready-made answers, and frame carefully calibrated questions and prompts so that students build their own understanding independently and become makers of meaning. The second is that of coach for transfer to reality: teachers guide the application of what has been learnt to concrete contexts, designing challenges that are both authentic and meaningful for the subject, and accompanying students through guidance and feedback until they become original creators of knowledge. Designer, facilitator and coach are not three separate functions, but three faces of a single posture, in which the teacher's knowledge is not imposed but sets up the conditions for learning to happen.

2.2.7.4 The space of the adult in a context dominated by technology

Since the advent and expansion of artificial intelligence cannot realistically be halted, the central question for the world of education becomes what space remains for the adult, and in particular for the teacher, as a reference figure. When, at a moment of need, there are no adults who are reachable and present, for example because of long response times or practical unavailability, students turn to artificial intelligence platforms as a substitute interlocutor. This is a scenario that can in fact bring sharply into focus the distinctive value of human presence: what the teacher offers is not speed or total accessibility, but the quality of an encounter in which students feel recognised and accompanied.

In this scenario, the quality of adult presence becomes decisive. Inconsistent dynamics, such as initial closeness followed by a return to an authoritarian model, can produce a sense of broken promises and feed anguish and fragility, weakening basic trust in the adult world. By contrast, a meaningful relationship, even when strict or demanding, remains a source of stability and orienta-

tion, especially at times when students are going through difficult transitions. It is in this consistency, and not in mere technological availability, that the role of the teacher as an irreplaceable figure is decided in the context of technology and, in particular, of the use of AI.

2.2.8 Critical issues

The proposal set out in this chapter is not presented as an operating manual to be applied, but as a trajectory of choices that leaves educational communities with a series of structural tensions. Recognising them is the condition for the proposal to become not a new rhetoric but real work on practice.

- **Tension between the individual and the system.** The systemic approach requires every student behaviour to be read as a response to wider contexts, yet the school actually operates in its daily relationship with the individual. How can teachers hold together the systemic view, which places the student within a network of pressures and cultural messages, and concrete attention to the individual in front of them, without the former dissolving individual responsibility and the latter lapsing into an oversimplified reading?
- **Tension between preparation for the future and present life.** The two educational postures identified are not mere differences of emphasis: they imply two different ideas of the very meaning of education. How can the school adopt a posture that fully recognises students' present life as a life that counts, without giving up its function of accompanying them towards the future?
- **Tension between transmission and experience.** The shift from transmission to offering meaningful experiences is a shared direction, but the school system is still structured for transmission, from timetables to content, from assessment to organisation. What concrete conditions enable a school to generate experiences and not merely to do activities, and how far is this transformation possible within the current organisational architecture?
- **Tension between efficiency and slow time.** The idea that the school should resist the tyranny of the immediate and assert the value of slow time collides with social, family and institutional pressure for measurable performance and quick results. How can the school defend slow time within a context that measures its value through indicators that reward efficiency?
- **Tension between a hypothesis of meaning and pluralism.** Proposing a hypothesis of meaning as a condition of the educational process comes up against a plural society, in which educational communities cannot assume broad cultural consensus and must at the same time avoid turning the proposal into an imposition. How can the educational community propose a hypothesis of meaning with the necessary courage, without the proposal sliding on the one hand into ideological imposition and on the other into a neutrality that dissolves its own identity?

- **Tension between the centrality of the teacher and the crisis of symbolic adulthood.** The pedagogical proposal places the teacher at the centre as the figure through whom the educational relationship is established, but the crisis of symbolic adulthood affects the very adult world from which teachers come. What work is the educational community called to do on itself, even before it does so on students, in order to build and sustain the quality of adult presence without which the proposal cannot take hold?
- **Tension between partnership and educational asymmetry.** The idea of partnership between teacher and student transforms asymmetry from a relationship of control into a relationship of accompaniment. How can the educational asymmetry that is constitutive of the teaching role be held together with the empowerment and partnership that the proposal requires, avoiding both an authoritarianism that disregards the student and a levelling that disregards the formative function of the teacher?

2.3 Effects on teaching and on the organisational structures of the school

The proposal outlined in the previous chapter is tested in concrete practice. Without a practical translation, the orientation towards meaning, the posture of convocation and the quality of the educational relationship risk remaining principles that are merely proclaimed. This chapter sets out that translation, starting from the structural nodes of the school system and moving through a teaching approach that starts from questions, curriculum selection, digital competences, assessment and the time of learning, artificial intelligence in teaching and the age of access to technology, up to the enabling conditions and some questions on the systemic horizon: the marginalisation of the school, the teaching profession and experimentation.

Table 3. Content map: effects on teaching and on the organisational structures of the school

Section
2.3.1 Structural nodes of the school system
2.3.2 A teaching approach that starts from questions
2.3.3 Curriculum selection: from the ‘what’ to the ‘why’
2.3.4 Digital competences as an educational lever
2.3.5 Assessment and the time of learning
2.3.6 Artificial intelligence in teaching
2.3.7 The age of access to technology
2.3.8 Enabling conditions
2.3.9 Marginalisation, the teaching profession, experimentation

2.3.1 Structural nodes of the school system

Adapting the school to the new context cannot be limited to one-off interventions. Action is needed on three structural nodes that condition any innovation: organisation by subject, assessment methods (to which a separate section is devoted) and the system of failing students and making them repeat the year[9]. Unless these nodes are revised, proposals for change risk falling short of their full potential.

2.3.1.1 Beyond the fragmentation of subjects

As regards the organisation of knowledge, the current structure by ‘subjects’ can be read as a historical construction linked to mass schooling and to the constraints of paper-based media, rather

[9] *Translator’s note.* In Italian schools, a student judged insufficient at the end of the year may be *bocciato*, that is, not admitted to the following year and required to repeat it; the practice is known as *bocciatura*.

than as an original articulation of knowledge. Human beings are not built to learn in watertight compartments. With the arrival of the internet, many experts had seen the possibility of reorganising the school into new forms of interweaving knowledge. In fact, the traditional subject structure has remained largely unchanged. Today teachers still meet by subject, as if this guaranteed better learning, whereas it would be possible to work on broad areas and on a school understood as a convergence of knowledge.

This repositioning should not be traced back to a simple adjustment to the demands of the labour market, but to the need to make a viable future perceptible and to sustain an unfragmented relationship with knowledge. The direction of work consists in reducing the rigidity of subject compartments, encouraging convergence and work across broad areas, and making the connection between knowledge, competences and abilities more explicit for students.

Linked to this need is the idea that the great themes of humanity cannot be adequately addressed through the fragmentation of subjects. Peace and war, ecology: there is no single subject that can contain them entirely, because these are questions that call for the convergence of different forms of knowledge and for multidisciplinary approaches. The school cannot limit itself to transmitting isolated subject content, but must make room for pathways in which meaning, experience, relationships and knowledge converge on common themes that are genuinely relevant to young people's lives.

2.3.1.2 Beyond failing students as a tool of selection

Another node concerns the practice of failing students, and with it the selective function that the school continues to perform. When failure is taken as a natural instrument of selection, its effects go beyond the individual pathway and extend to the social plane. Selection generates early school leaving, and early school leaving is unequally distributed: students from families with greater resources can transfer to more accessible pathways and still obtain a qualification, while others risk being left without a qualification and without prospects, at a high social cost. Added to this is the ambiguity of some re-orientation practices, which in many cases depend on contextual variables, such as the composition of the class group or the dynamics of the class council, rather than on any real unsuitability of the chosen course.

In this context, the response that sees a return to strictness, the centrality of content and tougher selection as the solution to unease at school can be read as a misdiagnosis: a therapy which, based on an inadequate interpretation of the situation, risks 'losing the school' even before losing the students.

2.3.2 A teaching approach that starts from questions

Alongside the revision of models of knowledge, teaching needs to be reoriented beyond the traditional transmissive lesson. It is possible to achieve significant results, even in traditional subjects, by starting from 'gaps in learning' and not only from the frontal transmission of knowledge. According

to many specialists in teaching methodology, the lesson should no longer start from the implicit pattern 'I know, you do not', but from questions: students are invited to ask, without fear of hearing the answer 'I don't know'. Teaching thus begins from what is not known, and takes the question as a lever for enquiry.

This approach also helps to realign the school with new cognitive and relational contexts, in which access to information is widespread and the educational difference increasingly lies in the ability to ask questions, argue, interpret and construct meaning. The learning gap is something that the new generations perceive ever more clearly, and that is also perceived in other educational settings, informal ones included, such as parish youth centres, which, as we have already observed, work better when young people are called upon and actively involved. The school, by contrast, tends to maintain a predominantly controlling model, which contributes to the disconnect between formal success at school and what then happens at subsequent transitions, in particular on entry to university.

This is the translation into teaching of what was observed about the educational relationship (see 2.2.6.2): the new generations prove more engaged when they are called upon, given responsibility and actively involved, whereas a predominantly controlling model contributes to the disconnect between formal success at school and subsequent transitions, in particular entry to university.

2.3.3 Curriculum selection: from the 'what' to the 'why'

The teaching guidance in the previous section entails a choice that the school often tends to avoid: the selection of content. A cultural proposal based on experience, questions and cooperation takes time, and time is structurally in tension with the quantity of content that one expects to cover.

The right question to ask is not 'shall I do this or not?', but 'why am I doing it, and what formative objective am I pursuing?'. Take the example of translation from the classical languages: the exercise has considerable formative value when it is aimed at developing logical thinking and mastery of syntactic structure; that value, however, must be made explicit and supported by argument, not taken for granted. A similar consideration applies to some mathematical content which, after being taught for decades as a mere technical exercise, can instead become the gateway to a deep understanding of the passage from one dimension to two: this is the case of the cross term $2ab$ in the square of a binomial, which can be read as a geometric explanation of what happens when linear quantities are multiplied. Framed in these terms, the content takes on a meaning that goes beyond the solving algorithm.

This reformulation requires teachers to reflect on their own subject in a way that cannot be done individually: it calls for a school-wide plan, collegial discussion and guidance that make it possible to take collective decisions on what to keep and what can be let go. Some subjects find in technology and AI an amplifier of their teaching possibilities; others, which have built their tradition on specific

exercises such as Latin and Greek translation (*versioni*), face painful but unavoidable choices. It is no longer enough to set a translation as it has always been done: each teacher needs to ask what formative objective that exercise pursues, and whether there are other ways of achieving it. An individual teacher, however, finds it hard to carry out this exercise alone.

Linked to this is a broader transformation in the value of knowledge (see 2.1.4.3). Knowledge as an accumulation of information that can now be retrieved from a low-cost device has certainly lost part of its value: the positional advantage that for generations had given those who knew many things a structural edge has been eroded by universal access to information. Knowledge does, however, retain its value intact, and indeed gains new value, insofar as it relates to the exercise of critical thinking, to the construction of interpretive networks and to the ability to connect disparate pieces of information to produce understanding. The difference lies not in the quantity of knowledge possessed, but in the way that knowledge is related to other knowledge and placed at the service of a deeper understanding of reality.

2.3.4 Digital competences as an educational lever

Among the most significant curricular choices is the way the school approaches the question of digital competences. The proposal is to read this theme not as a technical matter but as an extraordinary educational opportunity.

The reference point is the European DigComp framework, in its version 2.2 and in the more recent version 3.0, published in December 2025, which incorporates the theme of artificial intelligence more systematically. The framework sets out twenty-one competences across five broad areas. The central argument is that the great majority of these competences, with the exception of three or four with a more markedly technological content, do not require specialist computing skills, but point instead to profoundly educational dimensions: responsibility in the use of data, the ethics of digital communication, the ability to evaluate information critically, awareness of the reciprocity of responsibilities online. A concrete example: in public discourse on privacy protection we almost always place ourselves in the position of those who fear that their data will be misused, without considering that our own devices hold the data of a great many other people, for whom we in turn bear responsibility. Reflecting with students on the reciprocity of ethical responsibility in the use of data is, from this perspective, a profoundly educational exercise that can only take place within an explicit framework of values.

DigComp 3.0 has revised the proficiency levels, organising them into four (basic, intermediate, advanced and highly advanced) and accompanying them with explicit learning outcomes. This choice, which by analogy recalls the logic of the Common European Framework of Reference for Languages (CEFR), is not merely formal: it provides analytical descriptors and concrete examples that make it possible to set standards at the level of the school, the network and the system in a non-arbitrary way. Just as one can say that a student with a C1 certificate in English has a well-defined

and verifiable communicative autonomy, it becomes possible and necessary to establish what level of digital competence a student is expected to reach by the end of lower secondary school, or upper secondary school, or as early as the end of primary school.

Digital competences, if approached seriously, tend to raise rather than lower the level of basic skills required. Assessing the plausibility of a piece of online information requires a deep and sophisticated capacity for reading a text, in the syntactic sense of the word too: those who cannot read with sufficient mastery are unable to evaluate digital information.

There is, however, a structural risk that the Italian school system has already experienced: competences remain essentially unknown in everyday teaching practice, where thinking continues to be framed mainly in terms of content. The risk that the discourse on digital competences may suffer the same fate is real: it is adopted as a 'decoration' of the traditional curriculum, replacing, for example, the content item 'Cicero' with formulations presented as competences, such as 'knowing Cicero' or 'understanding Cicero', without really changing the structure or affecting the fundamental choices. The very availability of precise analytical descriptors can help to resolve the ambiguity: when it is possible to discuss concrete examples of what a student can or cannot do, the debate moves from the level of principles to the level of evidence.

A particularly relevant concept in this framework is that of 'implicit dropout': the phenomenon affecting those students who, although they obtain their diploma, complete their schooling with a level of competence significantly below the expected standards. According to INVALSI estimates, this phenomenon affects around 8.7% of Italian school leavers (INVALSI, 2025). Early school leaving in the traditional sense is measurable and also defined at European Union level; implicit dropout, by contrast, is more insidious, since the student appears regular in official statistics despite not having acquired the expected competences. Countering it requires clearly articulated thresholds of acceptability, not with a view to stigmatisation, but as a tool for the early identification of risk and for activating targeted support.

Linked to this is the potential value of certifying digital competences, not so much as an end in itself as for the guiding and regulating effect it can produce: if access to certain educational pathways were subject to reaching certified thresholds of digital competence, the system would have an effective tool for steering teaching choices. The most important point is not so much certification in the formal sense as the identification of standards as learning goals: even simply using the DigComp analytical descriptors as a compass for curriculum design is potentially a very valuable tool.

The systemic value of this approach also lies in its ability to address the sterile polarisation between those who say 'yes to technology' and those who say 'no to technology'. Thinking in terms of digital competences makes it possible to escape that binary: the question is not whether or not to use technology, but which competences we want to develop, at what level, at what stage of schooling, through which experiences and with which criteria of assessment.

2.3.5 Assessment and the time of learning

Rethinking teaching is intertwined with reflection on assessment and on the time of learning. These are two distinct nodes that nevertheless share a common root: the difficulty the school system has in sustaining deep learning processes in a cultural context that pushes towards immediate measurement and speed.

2.3.5.1 Assessment: from marks to dialogue

The prevailing model continues to assess mainly in terms of marks, failures, stickers and symbols, conveying from the first years of primary school the idea that the main goal is to obtain a measurable result. This approach can lead young people and parents to see school mainly as a means of obtaining a mark or a qualification, overlooking the new difficulties of learning processes, linked both to changes in the cognitive systems of overstimulated new generations and to the overall adaptation of human beings to a different social environment. When the motivational bond is not built, learning is reduced to a short-term functional exercise. Seriously rethinking assessment and the practice of failing students is a necessary step in motivating students and supporting the construction of identity. The starting point is a reformulation of the very meaning of assessment: the primary meaning of evaluating is not to award a mark, but to give value: to recognise the point reached, the progress made and the areas for improvement within a dialogue that looks at the person as a whole and not at performance alone.

These considerations give rise to the question of transversal competences. Think of a student who has difficulty with grammar, perhaps with a failing mark, but who, in a real-life setting such as an outing with peers from abroad, is able to explain the cultural features of the city effectively in English, demonstrating solid communicative and pragmatic competence. The educational challenge is to make these transversal competences observable and assessable without reducing them to a numerical measurement. Transversal competences cannot be turned into autonomous subjects or assessed with a specific mark, such as a 'mark for leadership' or a 'mark for problem solving'. They must be assessed within subjects, as competences applied to concrete situations: one does not assess leadership in the abstract, but the way the student managed the interaction, the quality of linguistic and cultural mediation, communicative effectiveness, pragmatic ability. What is transversal thus becomes observable and assessable within the context of a subject. This is the ground of the volume *Istituzioni scolastiche e sviluppo delle competenze socioemotive* [Schools and the Development of Socio-emotional Skills] (Agasisti, 2023), which argues that the school must also take responsibility for students' socio-emotional skills, alongside their cognitive and subject skills. These skills, the volume stresses, are neither intangible nor by nature beyond assessment: they can be taught and assessed within school pathways, provided their formative value is recognised and they are observed in the concrete situations in which they manifest themselves.

A first practical hypothesis is to give different weights to the different dimensions of assessment within the same subject. In English, for example, the mark could be made up of a share for grammar and vocabulary, a share for written and oral comprehension and production, and a share for interaction and mediation. This approach avoids two opposite risks: that a student skilled in personal interaction might make up for gaps in the subject without studying adequately, and that the student might be confined to purely rote learning.

Linked to this direction is a consideration about the cognitive reduction of formative value and of its seriousness. In the Italian context there is a tendency, in order to make something 'serious', to reduce it exclusively to the cognitive dimension. The case of the sports-oriented liceo scientifico[10] is telling: it risks being perceived as serious 'in spite of the sport', and not because sport is an integral part of the formative pathway. The question of what makes sport 'scientific' tends to be answered by justifying its presence through indirect references to subject areas such as biology, physiology, biomechanics or statistics. While these connections are important, they neither exhaust the formative value of sport nor form its core. To avoid an exclusive reduction to the cognitive, we need to ask about the formative value of what cannot immediately be turned into notions. Sport is serious not because it is justified through theoretical explanations, for example about muscle levers, but because it is practised seriously. Its formative dignity does not derive from cognitive scientific rigour in the strict sense, but from the recognition of its intrinsic educational value. Sport is serious because it forms people capable of living in the world with others, within rules and limits, starting from their relationship with their own body.

Assessment, from this perspective, should be understood as recognising the value of the journey, not only as measuring performance. Initially very weak pieces of work can be met with feedback aimed at recognising what works, encouraging significant improvement over time. From this perspective, a distinction is drawn between the mark, which remains a formal datum, and the educational feedback that accompanies students and supports their growth. This approach is effective only if it is founded on an authentic and sincere gaze, not on a communication strategy: recognition of value must start from what is really there in the student's work. To correct means to work on mistakes so that what is valid can emerge and become consolidated.

A related consideration concerns the gap between a 'high mark' and real learning. High marks do not necessarily guarantee that content has been internalised or will remain meaningful over time. The fragmentation of subjects and of time risks producing learning that quickly fades, whereas the educational task should foster lasting connections and meanings. What is needed, therefore, is assessment that rewards what holds up over time, helping students to connect content, to place it in a wider framework and to understand its meaning.

[10] *Translator's note.* The *liceo scientifico* is the science-oriented *liceo*; its *sportivo* option, introduced in 2013, combines the scientific curriculum with the study and practice of sport.

Alongside the structure of the mark, the question of assessment dialogue arises forcefully: the possibility of giving students a detailed picture made up of strengths, areas for improvement and future goals. This implies a gaze capable of seeing the person as a whole, not only their performance. Telling a student 'I see you' does not mean exercising control, but recognising their steps, including difficulties and moments of regression. Behind a drop in performance there may be complex personal experiences that make learning impossible at that moment. In these cases, the possibility that an adult might ask an open, non-judgemental question, such as 'what is happening?', becomes an integral part of educational action. This kind of dialogue requires time, space and a reorganisation of school work, but it is an essential condition for truly formative assessment.

The ethical dimension of assessment is what makes the teacher irreplaceable: not because of a merely technical function, but because of the ability to grasp the student's transformations. These transformations are not always immediately measurable, but they show in the body, in behaviour, in posture, in the way the student is present in the classroom and relates to others. The teacher's sensitivity is what makes it possible to recognise these changes and to take them into account in assessment too.

This reformulation finds precise confirmation in the reflection of Cristiano Corsini (2025), who in *La fabbrica dei voti* [The Grade Factory] criticises the central role taken on by numerical marks in Italian schools, showing how assessment risks being reduced to a practice of ranking and selection. The centrality of the mark, the author observes, steers students, families and teachers towards performance and immediate results, fuelling competition, anxiety and a conception of learning as an accumulation of measurable performances. Against this drift Corsini sets an educational and formative assessment, based on descriptive feedback, on valuing mistakes, on the active participation of students and on attention to processes of growth: assessment placed back within the educational relationship, not as an instrument of control, but as a practice capable of accompanying the development of the person and of sustaining meaningful and lasting learning.

What is at stake in this critique becomes more radical when measurement and selection are no longer entrusted to a teacher's judgement, but to procedures that present themselves as neutral and objective. This is the ground addressed by the encyclical letter *Magnifica Humanitas* (Leo XIV, 2026) on safeguarding the human person in the time of artificial intelligence, which warns that entrusting an algorithm with the power to select who is worthy or not, without anyone bearing responsibility for that judgement, is to hand over the task of redefining the boundaries of human possibilities; and since the exclusion of the vulnerable becomes cloaked in a veneer of neutrality and objectivity, it becomes difficult to object to, and injustice goes unnoticed (Leo XIV, 2026, no. 103).

2.3.5.2 The time of learning

Learning has its own time, distinct from the time of life outside school and not reducible to it. It is necessarily gradual and progressive, and it needs to be recognised as a value and not as an anachronism: the real challenge is to make this slow time recognisable, not to try to speed it up or make it more efficient in order to fit external models typical of the hypertechnological context in which the school is immersed today.

Boredom, effort and slow time are not waste to be eliminated, but structural components of learning. The possibility of going through difficulty, disorientation and error is an essential part of the formative experience, even when technologies are available that can speed things up and reduce effort. It is in this space that the possibility of deep learning is decided: learning that consolidates over time, that becomes bound up with identity, that truly becomes part of the person's heritage.

This is where the relationship between technology and speed comes into play. Technology is culturally associated with acceleration, and if this association is pushed to the extreme an apparent tension arises: if the depth and truth of the educational experience require slowness, technology and school risk appearing antithetical. The answer is not to give up technology, but to define (and limit) its purpose. There are areas, in particular bureaucratic and administrative ones, in which speeding up is not only legitimate but desirable. Rather than speeding up, however, the point is to free up time, especially for teachers, so that it can be reinvested in the time of the educational relationship. The central question then becomes: beyond speeding up processes, what do we really need technology for? The risk is that everything is pushed in the direction of acceleration, without asking what must instead remain slow in order to be educational.

On the teacher's side, the pressure towards acceleration shows itself as educational performance anxiety, combined with short-term measurement and the expectation of control: a drift that ends up distorting the educational process (see 2.2.7.2). Education, by its nature, indicates a direction and cannot be forcibly imposed; authentic educational outcomes are often delayed, and sometimes emerge only when the student has already moved to another class or completed their schooling. It is useful, from this perspective, to recall the concept of '*furor sanandi*', understood as the attitude of 'I'll do it all myself, I'll sort out every situation', which goes hand in hand with a dimension of command and control. It contradicts the very nature of education, which indicates a direction and cannot be imposed: students embrace the educational proposal only if they recognise that it is worthwhile for them, since what enters the mind is what one chooses to welcome.

2.3.5.3 When the digital helps and when it distorts

On this twofold ground of assessment and time, the digital can play a supporting role, provided it does not digitalise haste. When the digital reinforces the logic of immediate measurement, that is, rankings, scores, performances, averages, it feeds an unhealthy idea according to which everything should always be visible, measurable and immediately assessable, and the educational relationship

risks turning into surveillance, as happens through the use of electronic registers[11] and of notifications designed to keep an eye on students and processes. This generates an illusion: that the digital is the automatic solution to the difficulties of teachers and students.

The digital can instead support learning when it makes it possible to shift attention from the result to the process. A relevant reference point in this direction is the principle of 'multiple means of action and expression', developed within the framework of Universal Design for Learning (CAST, 2024). The principle starts from a foundational observation: there is no single way of acting and of expressing what has been learnt that is optimal for all students, since each navigates the learning environment and communicates what they know in different ways. Designing teaching that offers a plurality of channels and expressive tools therefore means not reducing learning to a single performance, measured at a single moment and in a single form. The digital, if used with discernment, can help to put this principle into practice: the guidelines themselves include, among their practical considerations, the use of flexible tools for composing and sharing ideas, for supporting the organisation of work and for analysing one's own growth over time.

It is in this last direction that tools such as the student portfolio could be placed. By collecting successive tests and revisions, a tool of this kind makes the trajectory of learning observable and reveals its actual nature: a non-linear, gradual process, different for each person. This visibility is valuable for teachers, who gain a longer-term reading rather than isolated results, and even more so for students, who can understand that not succeeding straight away is not a sentence never to succeed. This connects with a difficulty widespread among adolescents, linked to the demand for immediacy and expressed in the phrase 'I don't understand why I don't understand straight away', whereas study requires time and gradual progress.

The digital can also create a memory of the educational relationship, recording qualitative observations and small steps forward: moments in which the student opened up, attempts made, significant passages. A qualitative assessment placed in a longer-term perspective helps to bring out progress and to scale down the idea of the immediate outcome as the only criterion of value. It can also foster collegiality through spaces shared among teachers: the aim is to lift anxiety from the individual teacher, not simply by sharing it as an emotional state, but by turning it into a common question, less tyrannical and more manageable within shared thinking.

2.3.6 Artificial intelligence in teaching

Artificial intelligence raises a fundamental question about the meaning of learning, because it makes the answer to 'why learn?' more problematic. Within this framework, a non-reductive direction should be proposed: to regard AI not only as an operational aid, but as a potential instrument of reflexivity, useful in supporting the construction of the cognitive self.

[11] *Translator's note.* The *registro elettronico* is the online platform, compulsory in Italian state schools, on which teachers record attendance, marks, homework and notes, and which families can consult in real time.

2.3.6.1 Anthropological framework: the risk of functionalist reduction

An anthropological premise guides the whole discussion and is recalled here, taking up some themes already present in the previous chapters. The spread of artificial intelligence reinforces the risk of a functionalist reduction of the person. The main risk is not that machines will become like human beings, but that human beings will tend to become like machines: AI can help to consolidate a vision of the human being as a system that processes data and produces performance, with the resulting view of the person as a set of measurable functions, processes and outputs.

This functionalist reduction is not an isolated phenomenon, but the expression of a broader cultural matrix that recent Church teaching has named precisely. The encyclical letter *Magnifica Humanitas* (Leo XIV, 2026) traces it back to the technocratic paradigm, that is, the tendency to let the logic of efficiency and control alone govern choices: when efficiency becomes the ultimate measure of value, human beings are tempted to see themselves as a project to be optimised rather than as persons called to relationship (Leo XIV, 2026, no. 112). To this diagnosis the encyclical anchors an anthropological principle of direct interest to the school: elevating any single dimension of human existence to an absolute is always a mistake, because intelligence, when absolutised, overshadows other essential dimensions of life, such as affection, the will, commitment and relationships, and technical power, if left unbalanced, does not make us more capable but more isolated (Leo XIV, 2026, no. 113).

Transposed to the school context, this perspective makes more plausible an implicit model in which students are interpreted as 'learning machines', with an input-process-output sequence, and with the risk of reducing personal complexity to performance indicators. As an alternative to this drift, the centrality of the subject as a thinking body must be reaffirmed: learning takes place through experiences and relationships, from the perspective of psychosomatic unity and the centrality of the bodily self. This premise guides all the practical choices that follow: AI is introduced into the classroom not as the optimisation of a performance model, but as an instrument within a framework that protects the complexity of the subject.

At this point it is worth clarifying the very nature of artificial intelligence systems, since the correct way of introducing them into teaching depends on it: artificial intelligence does not think. What these systems perform is a statistical processing of language, a probabilistic modelling of dialogue built on large quantities of data, and not an act of thought. On this point the anthropological reflection of *Magnifica Humanitas* (Leo XIV, 2026) is unequivocal and deserves to be recalled in full: the encyclical urges us to avoid the misconception of equating this type of 'intelligence' with that of human beings, observing that these systems merely imitate certain functions of human intelligence, often surpassing it in speed and computational capacity, but that this power remains entirely tied to data processing. They do not undergo experiences, do not possess a body, do not mature through relationships and have no moral conscience; and even when they are described as capable of 'learning', theirs is a form of statistical adaptation based on data and feedback, which can be very effective

but does not imply inner growth (Leo XIV, 2026, no. 99). For the same reason, the communication they produce is simulated: when words are simulated, they do not build genuine relationships, but only their appearance, and in contexts where real bonds are lacking they may lead a person gradually to lose the very desire to seek out others (Leo XIV, 2026, no. 100).

A direct educational implication follows from this observation. If artificial intelligence is a statistical record of dialogue and not a thinking subject, its entry into the school, without critical and well-managed use, tends to impoverish the educational dynamic, because it replaces with a semblance of dialogue what learning lives on, namely experience, bodiliness and the relationship between persons. This is the criterion by which the encyclical measures the quality of a civilisation, which is measured not by the power of its means but by the care it is able to offer and by its ability to recognise the other 'as a face not merely as a function' (Leo XIV, 2026, no. 114). Transposed to teaching, it requires the tool to be subordinated to the educational relationship and its use to be allowed only as a conscious exercise, never as a delegation of thought: it is on this condition, and on this condition alone, that artificial intelligence can cease to be a source of impoverishment and become the instrument of reflexivity discussed in the following sections.

2.3.6.2 When to introduce AI: the criterion of cognitive activation

One question to ask is 'when' to introduce technology. On this issue a functional criterion applies: the use of AI is beneficial when it activates learners cognitively more than would happen without it; otherwise it becomes detrimental.

For the youngest age groups the question remains open: exposure outside school is hard to control, and the issue shifts to education from the earliest years, including an understanding of the difference between interacting with machines and interacting with people. Although machines are able to replicate fake forms of empathy, what characterises human interaction is reciprocity in freedom. Explaining from an early age the substantial difference between interacting with machines and interacting with human beings appears to be an important educational objective.

2.3.6.3 The mathematical metaphor: what to protect

A practical criterion for deciding when to allow, require or forbid the use of AI is the mathematical metaphor. The analogy is with the way mathematics teachers historically managed the introduction of the calculator. While students were still learning to carry out the basic arithmetical operations, namely addition, subtraction, multiplication and division, the calculator was not allowed. Only once students had genuinely mastered carrying out those operations by hand were they allowed to use it, so that they could then tackle more complex and demanding problems. Use of the tool was conditional on the underlying skill having been acquired and was aimed at strengthening and advancing it.

This principle applies directly to the use of AI in all subjects. If a teacher wants students to learn to write, AI should not be allowed to revise students' drafts until they have genuinely learnt to do so. If a teacher wants students to learn to build ideas collectively, they should do so not with AI but with their classmates. In every subject, teachers should ask themselves: what are the fundamental processes, the equivalent of addition, subtraction, multiplication and division, in my subject? Which processes must students master by doing them on their own, without help from AI? Those processes must be protected. Only once the skill has been acquired can AI be admitted as a tool, where it is useful for advancing knowledge itself.

The implications of this metaphor differ depending on whether we are talking about the student or the teacher. For a student who is acquiring a skill, the criterion is straightforward: has that skill been mastered? As for the teacher, even if they already know how to assess metacognition, this does not mean that it is pedagogically appropriate to delegate that assessment to AI, because doing so sacrifices the relationship with the student and loses opportunities to accompany them on their learning journey.

An example given by one speaker illustrates the posture: students with very little time available would inevitably have used AI to summarise the articles set for homework. Instead of accepting this, the decision was taken to set aside class time for reading and discussing the articles without AI, precisely to ensure that learners developed the skill of reading academic texts. The process specific to the discipline, reading with critical attention, had to be protected.

2.3.6.4 The human metaphor: collaborator and critical interlocutor

Once the basic skills have been acquired, a second metaphor suggests how to engage productively with AI. The new generation of AI is now called *agentic AI*, where 'agent' denotes a degree of operational autonomy**,** a certain degree of proactivity and initiative, but obviously not subjectivity, intentionality or moral responsibility**.** This changes the conditions of our relationship with it.

From a teaching point of view, and without falling into anthropological misunderstandings, the metaphor suggests relating to AI as one would relate to a human collaborator, even though it is not a human subject. If you ask a person to write your essay for you, you are cheating. If you interview a human expert, you must cite them. The same logic can guide the question of when to attribute or declare the use of AI. But at a deeper level, from a pedagogical point of view, the human metaphor suggests that AI should be used as a critical interlocutor, not to delegate thinking, not to commit what can be called *cognitive surrender*, but to test arguments and explore them in greater depth.

A concrete example: after developing a new conceptual framework, one can consult ChatGPT, explicitly asking it not to change the framework but to identify its objections. If the AI raises three, one may be accepted and the other two rejected. The interaction enriches thinking rather than replacing it. This is not cognitive delegation: it is a matter of thinking more, and more deeply, thanks to an advanced technological tool. This kind of productive engagement with AI is possible only if one

already possesses the fundamental skills. Without that foundation, the same interaction becomes cognitive surrender rather than cognitive enhancement.

There is a parallel with the very way in which a good formative conversation unfolds: exchanging ideas, sharpening each other's thinking, slowing reflection down, deepening the conversation. This is exactly how we want ourselves and our students to relate to AI: not passively accepting what the expert or the AI says, but genuinely exchanging, enriching and developing one's own thinking through the encounter.

2.3.6.5 Teaching functions of AI

The teaching functions that AI can perform include: supporting metacognitive processes, mapping individual cognitive development, recognising what is learnt and how it is learnt, and broadening the comparison between different perspectives through simulations, alternative arguments and counter-arguments.

This trajectory does not necessarily require new technologies: it requires above all planning, experimentation, evaluation of outcomes and adjustments, and also support for teachers in redesigning their work. The added value of the school in this area lies not in the availability of tools, but in the quality of the teaching framework into which they are placed.

2.3.6.6 From product to process: designing learning

Using AI as a technical collaborator requires a deeper shift in teaching orientation: from an emphasis on the products of education to an emphasis on processes. By products we mean the theories, concepts, facts and content that make up the traditional currency of teaching. By processes we mean the ways of thinking, knowing and doing proper to each discipline: the historical interpretation of incomplete or contradictory evidence, the scientific creation and testing of hypotheses, the literary reading of texts, the philosophical questioning of ideas. Every discipline has a set of processes that are genuinely valuable and cannot simply be outsourced to AI.

This shift has direct implications for the design of tasks, activities and assessments. Teachers should observe not the product or output, that is, the essay, the answer, the project, but the process the student is going through. A significant example is that of oral examinations: where the choice has been made to move from written to oral tests for the most important assessments, it is precisely because an oral examination makes the student's thought process visible in real time. The teacher does not have to mark written work afterwards and at the same time is observing how the student thinks. This is one of many possible examples of how the emphasis can shift from product to process.

This approach is explicitly connected with Ignatian pedagogy, which is fundamentally oriented towards the design of learning rather than the transmission of content. The Ignatian paradigm, with its emphasis on designing experience, reflection and action, is a pedagogical model suited to the

circumstances we are living through. The challenge for schools is to teach their teaching staff to be genuine designers of learning, not mere transmitters of content. The teacher's professional autonomy is also important: every teacher must have the power and the responsibility to take pedagogical decisions in their own classroom about when the use of AI is appropriate and when it is not, what form it should take and what purposes it should serve.

2.3.6.7 Agency, the extended mind and active versus passive delegation

The integration of AI into teaching must be grounded in the need to preserve the student's agency. The framework of the 'extended mind' makes it possible to distinguish between using technology as a functional extension and using it as a substitute for the cognitive process. From this perspective AI is not simply an external tool, but becomes part of the student's cognitive ecosystem. The critical point is how this extension is managed.

Copying and pasting material that has not been read, checked or discussed is a use that cancels out research, comparison and verification: in this scenario there is passive delegation and a loss of agency. By contrast, requests for reformulation, analysis of gaps, critical comparison and counter-argument allow an integration in which the tool enters the process without replacing the subject. This is active delegation, in which students retain responsibility for the overall outcome.

The difference between the two forms of delegation is the key to the formative use of AI: a school that does not work on this distinction risks consigning students to systematic passive delegation, whereas a school that makes it explicit and turns it into teaching practice builds in students the capacity to manage the extended mind consciously. The relevant competence shifts from material execution to the ability to commission, evaluate and integrate. An analogy clarifies the point: in drafting administrative documents, the institutional recipient is interested in the formal and substantive correctness of the document, not in whether it was written personally; it is therefore possible to delegate the actual drafting while guiding one's collaborators on what the document must contain and why. Mutatis mutandis, and with an enormously greater multiplying factor, artificial intelligence raises the same question.

2.3.6.8 Three criteria for the use of AI in teaching

At the practical level, three criteria guide the design of teaching activities that use AI.

The first is consistency with the formative objective: the activity serves the objective, and the objective must not coincide with what would be delegated, or it will be defeated. If the objective is to develop argumentative writing skills, using AI to generate the text empties the objective itself; if, on the other hand, the objective is the critical analysis of texts, AI can be used to produce texts on which to practise analysis.

The second is the capacity for critical evaluation of the output: students are able to read, check, verify and discuss the result critically. The practical consequence is that the use of AI should be preceded or accompanied by building the necessary evaluative skills: one learns to use AI while working at the same time on the skills that make its critical use possible.

The third is the existence of alternatives that require presence and action: there are alternative ways of exercising the same competence that require presence, bodiliness and action. The use of AI is to be preferred to direct experience only when direct experience is not feasible or adds no formative value; when, by contrast, direct experience is possible and formatively meaningful, it should be preferred. This principle defends the value of bodiliness, face-to-face discussion and concrete experience as dimensions that technological mediation cannot replace without loss. In this approach, the aim is not to increase or reduce the use of technology, but to promote intentional use, aware of what is gained and what is lost.

The three criteria just set out concern the use of artificial intelligence. Educational discernment, however, cannot stop at this level, because the tool is never a neutral given that simply awaits good or bad use. *Magnifica Humanitas* (Leo XIV, 2026) states clearly that we cannot consider AI to be morally neutral: every technical tool embodies choices and priorities through what it measures, ignores and optimises, and how it classifies people and situations. For this reason ethical discernment cannot be limited to asking whether a given system is being used for good or bad purposes; it must also examine how that system is designed and what vision of the human person and society is embedded in the data and models that guide it (Leo XIV, 2026, no. 104). In educational terms, this means that the intentional use of AI presupposes a critical awareness of its genesis, and not only of the purposes for which it is used.

2.3.6.9 Independent study and technological literacy

At the practical level, the approach to independent study needs to be rethought, making it clear that this is not simply a matter of 'changing the way homework is set' in a generic sense, but of setting activities in which technology is sometimes necessary but not sufficient. Technology is thus included in the task: students can be asked to search for sources, to process them personally and then, where appropriate, to use technology to evaluate the output produced.

Alongside this, genuine technological literacy needs to be developed. One area of work is understanding the 'hallucinations' of artificial intelligence. It is crucial to go back to working with young people on the reliability of sources, which is also central to tackling the issue of fake news. Being able to recognise a reliable witness is a useful skill in everyday life: a person who does not deceive, who wants what is good for the other, who is sincere.

2.3.6.10 Risks of delegation for teachers and students

As already observed with regard to algorithmic delegation (see 2.1.3), the repeated delegation of cognitive processes that the subject has not yet internalised, or no longer continues to exercise, can lead to a progressive weakening of the skills involved, to the point where they may disappear. Within this framework it is possible to distinguish some specific risks for teachers and for students.

Within this framework it is possible to distinguish some specific risks for teachers and for students.

For teachers, three main risks emerge. The first is that of technical delegation turning into delegation of decision-making: the use of digital tools, such as the electronic register, platforms and online tests, can lead to a slide whereby the algorithm determines what is relevant in learning, what to measure and by what criteria to classify results. The second is the shift of assessment from the person to the data: the use of dashboards, scores, levels and charts can encourage greater trust in numbers than in the professional gaze on the person, with pressure towards assessment criteria perceived as objective, fuelled also by families' requests for marking grids. The third is the standardisation of planning and the weakening of the ethical responsibility of judgement: the teacher risks turning from a craftsman of relationships into an executor of workflows, with increasingly uniform lessons, and the machine can become the screen that justifies decisions and assessments. These drifts may initially be welcomed by some families, but they have long-term effects on teachers' professionalism and on the educational process as a whole.

For students, three specific risks emerge. The first is the delegation of cognitive effort: the tendency to have the machine carry out demanding tasks entails giving up the 'struggle' with the text, with the problem and with error, that is, the effort regarded as an integral part of learning. The second is the reduction of identity to an algorithmic profile: the risk increases that students perceive themselves as a set of data or labels, oversimplifying the complexity of the subject, to the point of defining themselves solely on the basis of diagnoses or categories. The third is the compression of unproductive time (see 2.1.3), which deprives learning of the 'dead time' needed to gain experience and not only to memorise content.

2.3.6.11 Relational discernment: the Ignatian framework

All these orientations find an overall framework in discernment, rooted in Ignatian pedagogy and in the founding values of Jesuit education, as a frame of reference for addressing the question of technology in educational settings. The model has already been described above (see 2.2.6.4): a cyclical and iterative process that starts from clarifying fundamental educational values and returns, after planning and action, to personal and collective reflection on what has happened.

The practical translation of this framework can be seen in actual teaching. Every activity involving technological tools is designed starting from the final goal, which is not the product itself,

but the relationships built through it and the understandings to be fostered. At the end of each activity, students are not only asked 'what did you learn?'; a structured reflective debriefing is conducted: 'what was positive?', 'what didn't work?', 'how did you feel?', 'what came to mind?'. The whole experience is the object of attention, not only the content learnt.

This approach is explicitly linked to the core values of Jesuit education: *cura personalis*, understood as attention to the whole person and not only to academic performance; the commitment to act for a good that transcends the immediate aim of the mark or the result; and the unity of heart, mind and hands, which means not treating technology as a mere tool to be used or avoided, but asking how it interacts with the deepest sense of who one is.

The model can be described as one of *relational discernment*: the relationship between educator and student is its indispensable foundation. It is within that relationship that an open and transparent conversation about technology becomes possible; and it is that conversation that enables genuine cognitive discernment on the part of the student, not a discernment that can be imposed, but one that can be cultivated through the quality of the bond. The demonstration of *cura personalis*, in turn, strengthens the relationship, generating a self-sustaining virtuous circle. The sense of belonging, that is, feeling supported in one's own school, has documented positive effects on many dimensions of development. One of the central concerns is that the indiscriminate use of technology risks eroding precisely the relational fabric that produces this sense of belonging: students might achieve better academic results by using technological tools, but this will not help them to feel part of an educating community.

2.3.7 The age of access to digital environments: the swimming-pool metaphor

The integration of digital tools into educational pathways raises a particularly delicate question: the minimum age of access to digital technologies, in particular social media and entertainment platforms. This is a serious and urgent issue that can no longer be avoided.

In support of taking an explicit position, one may recall the choice made by Australia, which has adopted significant measures regarding the minimum age of access to certain technologies, on the basis of growing evidence about the harm caused by early and unaccompanied access. Scholars such as Jonathan Haidt are also taking very firm positions on this issue.

The swimming-pool metaphor clarifies the meaning of the proposal: before plunging into the open sea, with its advantages but also its dangers, young people need to learn to swim in a protected and progressively more demanding space. The school should be, or help to build, that swimming pool: an environment in which basic skills are developed under controlled conditions before facing full exposure to digital technologies.

Education necessarily involves taking uncomfortable decisions. Those who make no choices in the name of a principle of neutrality or consensus are nonetheless making a choice, namely the

choice not to choose, with consequences that materialise all the same. Applied to the age of access to technology, this means that postponing the question does not make it disappear, but lets the answer be given by the market and by commercial interests rather than from an educational perspective.

2.3.8 Enabling conditions

2.3.8.1 Organisational arrangements that hinder learning

Among the critical elements of the school today, the first to be mentioned are the organisational arrangements that hinder in-depth study and meaningful learning. The fragmented timetable divides the school experience into short units of time, marked by continual starts and stops, with the risk of little depth and of 'confetti' learning. The continual change of subjects and teachers demands a constant effort of cognitive adjustment, whose actual usefulness may legitimately be questioned.

The splitting of subjects becomes a further obstacle when the subject turns into a rigid identity, with teachers who feel no connection with activities not directly related to their own subject, which they perceive as a waste of time compared with 'their own lesson', and who consequently close themselves off from cross-curricular experiences.

The physical organisation of classrooms is also a critical element: spaces seem designed to encourage immobility, frontal teaching and visual control, rather than movement and independent work. In some cases, the model recalls a layout that hinders different forms of active participation.

Added to these issues is the overload of syllabuses, which generates a constant sense of 'falling behind'. The real need to cover all the content exhaustively and chronologically is open to question: syllabus anxiety is also fuelled by comparison between classes and by external expectations. On top of this comes a bureaucratic overload that further reduces the space for in-depth study.

The obstacles to innovation in teaching are not only organisational and environmental; they also concern the way teaching is conceived. Teachers can design the conditions for learning to take place, but they cannot entirely predetermine its outcomes: part of what happens in the classroom arises from the encounter between the educational proposal and the students' initiative. Innovating, then, means creating spaces in which questions, connections and pathways that are not already fully defined can emerge.

An underused but potentially decisive lever is school autonomy: a little-used instrument that could lead to rethinking assessment, the organisation of time and the recognition of different experiences. Many of the structures perceived as rigid could be rethought through bolder organisational choices.

2.3.8.2 Well-being, emotional literacy and neuroeducational references

Rethinking organisational arrangements is not enough on its own. It is necessary to recognise that deep learning requires specific emotional and cognitive conditions, which must be cultivated intentionally.

One priority is a new emotional and relational literacy. The pedagogy of listening and socio-emotional education programmes are useful tools for students' well-being and for the durability of learning. The present generations, as already noted in chapter 2.2.6, display a relational competence often understood as the ability to pick up on the needs and functioning of others, which is sometimes accompanied by a gap in literacy about their own emotions.

Alongside this come neuroeducational references concerning attention, memory, emotions and motivation, with practical guidance on cognitive load, formative feedback, personalisation and differentiation. Active and meaningful methodologies, supported by digital tools, connect with a lesson structure that alternates activation, exploration and reworking, and that promotes metacognition and formative assessment.

A crucial distinction from this perspective is that between personalisation and individualisation. Personalisation recognises the specific characteristics of the student and adapts the pathway without isolating them from the class group: the student learns better because the pathway recognises them, but remains part of a collective experience. Individualisation, by contrast, tends to build isolated pathways for each student, with the risk of weakening the collective dimension of learning and turning the class into a juxtaposition of individual trajectories. Technology can support both directions, and the choice between them is an educational choice that precedes and guides the technological choice itself.

The educational goal is not to promote solitary learning, but to personalise pathways within a school that remains a context of relationships. If in the future an artificial intelligence were asked to represent learning visually, it would probably generate the image of a person alone in front of a computer. The school, on the other hand, is the place where one learns to be with others, to read the world and to act upon it.

2.3.8.3 A complex environment, not a hostile one

Consistently with this approach, cognitive effort and educational conflict should be regarded as components of the school experience that cannot be eliminated. The school, in trying to respond to students' needs, must not build an excessively adapted environment, designed to prevent every discomfort or frustration. The crucial distinction is that between a complex environment and a hostile one: complexity implies the presence of conflict, effort and difficulty, without these being eliminated or neutralised; hostility, by contrast, risks crushing many students, who today more than in the past struggle to cope with excessively harsh contexts.

Practices that tend systematically to defuse aggressiveness and dissent can impoverish the educational experience, depriving students of the chance to measure themselves against disagreement and limits. What makes the difference is the environment in which these are experienced. What is needed is a friendly gaze that makes no allowances: an authoritative gaze that believes in the student's ability to think, that does not shield them from difficulty but accompanies them in facing it. The posture of the 'snowplough' teacher, who removes every obstacle to avoid discomfort, deprives the student of an essential formative experience.

2.3.8.4 Teacher training and untouchable nodes

As regards teacher training, a fundamental limitation must be recognised: teachers cannot be asked only for 'micro-changes' within a way of working that remains unchanged. One can offer them good training, but if in the end the teacher still has to fail, assess and select rigidly, it is not possible to build the kind of trusting educational relationship that one claims to want to promote. Until the courage is found to tackle marks, the failing of students and organisation by subject, teachers end up being asked to build solid relationships in a system whose pillars continue to be organised otherwise. Teacher training risks having limited effects if it is not accompanied by a consistent revision of the organisational and assessment arrangements within which teachers are called to work.

2.3.8.5 The explicit educational model

The last enabling condition, and perhaps the most decisive, concerns whether the school has an explicit educational model. Choices about technology can only be set within a broader reflection on the educational mandate, and that mandate must be not only declared but also shared by the community concerned: teachers, families, students.

The example of foreign languages and the CEFR is illuminating: the European framework states that the school must develop communicative competence in the foreign language, and this orientation is binding on teaching choices. A teacher may choose to work through literature, journalism or other means, but must steer by that compass. In the same way, a school may decide to make the most of translation from Latin as a means of developing logical thinking and attention to the structure of language, but it must know why it is doing so and what competences it is pursuing, and it must be able to account for that choice within a broader plan.

The explicit educational model also has an important defensive function: it makes it possible to state clearly which objectives one deals with and which one does not. This capacity for 'boundary-setting' is valuable because it makes it possible to concentrate energies and to resist the dispersion generated by the multiplicity of demands. Without an explicit compass, the tendency is to try to respond to everything and do nothing well.

2.3.9 Marginalisation, the teaching profession, experimentation

To conclude the chapter, three questions on the systemic horizon deserve to be named openly.

The first concerns the risk of the school being marginalised. A forward-looking provocation, consistent with the speed at which technology is developing personalisation capabilities, is a scenario in which someone proposes entirely virtual school pathways, built by AI and tailored to the individual student, capable of reaching certain standards more quickly and efficiently than the traditional school. The risk is real, and it is borne out by past experience: the introduction of technology into the teaching of mathematics in the 1980s was optimistically judged to be the solution to the problem of learning, but the actual result was the amplification of pre-existing differences, not their reduction. Technological tools had made those who already had skills and motivation faster and more efficient, widening the gap with those who did not. This risk still applies today and must be borne in mind in designing any intervention. A possible response exists: a school that knows how to use technology to free time from mechanical execution can reinvest it in the educational relationship, in personalised work with students who are struggling, and in challenging more advanced students with more complex tasks. From this perspective, technology does not marginalise the school: it strengthens it, provided the school is clear about its own goals and knows what to do with the time freed up. The school that 'plays defensively', trying to exclude technology in order to preserve its traditional practices, is the one most exposed to the risk of marginalisation.

The second question concerns the teaching profession. One consequence of this scenario, which must be named openly however unpopular it may be, is the following: if technology makes it possible to do some things that previously required many teachers with very different abilities, it is possible that in future fewer teachers will be needed, or teachers with different profiles. This radical provocation emerged in the discussion: could technology in future affect the number, roles and professional profile of teachers? It is a complex question, but one that deserves to be analysed in depth.

The third represents a possible line of work: launching experiments to understand concretely what might work and what effects it produces over time. For example, a pilot experiment might entrust a class to a group of teachers for five years, without books or traditional tools, with free use of artificial intelligence and other technology, to see whether students would not only reach the same levels of learning but would also be better equipped for life in the longer term. The idea is that of an in-person working group, in which the strong presence of teachers is placed at the service of the relationship and of the students' questions, consistently with a school that does not merely measure performance but supports real processes of growth.

2.3.10 Critical issues

The practical translation of the proposals set out in this chapter brings to light some structural tensions that run through the school system.

- **Tension between established arrangements and necessary arrangements.** The school system is structured by organisational arrangements, namely timetables, classes and assessments, that correspond to a traditional teaching model, but the proposal requires different arrangements. How can the arrangements be changed gradually without compromising the stability of the system?
- **Tension between widespread access and question-based teaching.** Immediate access to well-structured answers reduces the space for the question as a formative device, while question-based teaching requires times and methods that the context tends to compress. How can the school uphold the formative value of the question in a context in which the answer is always already available?
- **Tension between standards and personalisation.** Shared learning standards provide essential practical reference points, but they risk coming into tension with the personalisation that the pedagogical proposal requires. How can the clarity of standardised reference points be held together with the flexibility needed to accompany the individual student?
- **Tension between explicit and implicit dropout.** Explicit dropout, that is, early school leaving, is the subject of institutional attention, while implicit dropout, that is, school leavers without basic skills, tends to remain less visible. How can the school tackle both forms of dropout, recognising that the second is often the real indicator of the soundness of the system?
- **Tension between the subject-specific 'why' and the school-wide plan.** The 'why' of every curricular choice requires a specific subject-based argument, but these choices make sense only within an overall school-wide plan. How are the subject level, the systemic level and the level of the individual teacher's educational and pedagogical culture, whether explicit or implicit, to be reconciled in the selection of content, avoiding both subject particularism and an abstract school-wide plan?
- **Tension between competences as 'decoration' and competences as practice.** Digital competences risk becoming a decoration of the curriculum, formally present but disconnected from real practice, or else turning into genuine teaching practice. What conditions make the second outcome possible and prevent the first?
- **Tension between active and passive delegation.** The distinction between active and passive delegation is clear in theory but blurred in daily practice. How can the school build teaching arrangements that genuinely educate for active delegation, recognising that this is a competence that requires practice and accompaniment?
- **Tension between freeing up time and educational design.** Technology promises to free up time for more qualified activities, but without an explicit educational design the time freed up risks being filled with new routine tasks. What educational design guides the use of the time that technology can actually free up?

- **Tension between 'fewer teachers, better equipped for the new paradigm' and the stability of the system.** The prospect of fewer teachers, but better equipped for the new paradigm, may represent an investment in professional quality or a justification for staff cuts. How can the system build a pathway of professional development without it turning into a contraction that weakens educational presence?
- **Tension between an explicit model and conformity with the system.** An explicit educational model is a condition for the proposal to be recognisable, but schools operate within a system that requires conformity with general indicators and standards. How can each school make its own specific educational model explicit while remaining within a unified system?

CHAPTER 3 Educating in the age of technology. Practical guidelines

3.1 Introduction

These practical guidelines are the fruit of months of shared, interdisciplinary work involving teachers and experts from different fields. Rather than narrowing the field to the actions to be taken, the process gradually broadened the reflection to the many educational, anthropological and pedagogical dimensions involved in the relationship between technology and school.

It is worth first making explicit the posture with which we write these guidelines and offer them to the world of school, education and culture. We are not presenting a point of arrival, nor a simple conceptual summary of the Report that precedes these guidelines: we are presenting a reflection that is both committed and open. We find ourselves in a situation in which what remains to be tried out is more than what we already know, and saying anything definitive seems more impossible than ever. We nevertheless feel a responsibility not to stop at merely observing or diagnosing what we see around us. We are convinced that the gravest risk is that of immobility: failing to take on, as adults and educators, the task of attempting a path in the time we have been given to inhabit.

Our commitment has therefore taken the form of two successive attempts. The first was to look at the changes under way and reflect on them, in order to understand them without being overwhelmed by them: this is the work that took shape in the Research Report. The second is to formulate practical guidance capable of directing action, in the awareness that the path chosen may not be perfect and may require subsequent adjustments.

To help the reader, we set out the structure of this final section of the document. It is organised in three parts, which answer three distinct questions linked by a single movement: (i) on what foundations our proposal rests, (ii) in what way we intend to develop it, and (iii) in what concrete practices we intend to translate it.

The premises make explicit the foundations of the proposal: they delimit the subject we are dealing with, clarifying what we mean when we speak of technology; they declare the reasons that move us, making explicit what we care about when we speak of education; and finally they establish the

principle by which we take on the responsibility of formulating proposals. In this way the premises define the perimeter within which every subsequent indication is to be read and understood.

The method translates the premises into a concrete way of proceeding. If the premises establish the foundations of the proposal, the method indicates the conditions, precautions and ways of working that a school can adopt in order to address such a vast and constantly evolving issue without being overwhelmed by it and without oversimplifying it. This is the part in which vision becomes an operational perspective.

Finally, the content concerns concrete teaching practice: what the school actually decides to put into action in classrooms, in subject pathways and in forms of assessment, and the criteria by which it chooses and configures the tools that enter them. This is the point at which premises and method take shape in verifiable experiences, which are themselves subject to the logic of experimentation and evaluation indicated by the method.

3.2 Premises

3.2.1 What we mean by technology

The first clarification on which we wish to dwell concerns the very object of our reflection, since the scope of everything that follows depends on how it is defined.

Although at this point in history engaging with artificial intelligence is unavoidable, technology cannot be reduced to artificial intelligence alone, nor, conversely, identified with 'screens'. In thinking about a strategy for integrating technology into education, we mean something broader and perhaps more lasting: 'digital technology', that is, everything in school and human experience that is mediated through the digital. This clarification matters for two reasons. On the one hand, it frees us from the mere contingency of the present and allows a definition that can last beyond the current phase of development of artificial intelligence. On the other, it keeps the reflection open to areas in which artificial intelligence is not in the foreground, but in which the digital nonetheless profoundly affects the ways we learn, communicate, relate to one another, know and inhabit the world.

3.2.2 What we care about

The second premise answers the question of what we care about, and therefore of why we feel a responsibility to work on these guidelines. The question that moves us is not first of all technical, but anthropological and educational: what makes human beings human, what makes them special and unique within the hypertechnological societies in which we live? In the light of the transformations of the world in the age of digital technologies and artificial intelligence, what we can no longer take for granted is precisely the value of the human (see, in this regard, the encyclical letter *Magnifica Humanitas*). This is why, in our reflection, we did not start from 'technology and teaching' but from

'technology and the person': before asking how tools enter into teaching, we wanted to ask what they set in motion in the way the person looks at themselves, at others and at the world. This is what is at stake in our work: to think about, and help to build, the possibility of a 'new humanism'.

There is, moreover, a particular face of the human that, as a school, we are called to safeguard with special care: the human being in the process of growing up. Thinking about the impact of technology on human development means taking account of the different stages of growth, of the developmental tasks proper to each age and of possible forms of vulnerability. There are, in fact, dehumanising effects to which we must pay attention, especially at certain stages of life, when the person is still being formed and is particularly exposed to the force of the environments they inhabit.

This attention is accompanied by an underlying fear: that the arrival of these technologies may legitimise, even if only implicitly, forms of exclusion, making the measurement of performance the criterion by which we recognise who falls within a norm and who remains on its margins. Diversity, together with difficulty and fragility, would then appear as waste to be corrected, and no longer as a constitutive dimension of the educational experience. This is why we intend to safeguard the meaning that learning has for us. If education concerns the human being as they grow, no performance parameter exhausts what happens when a person learns: it involves experience and relationship, time and error, the good effort that learning and growing entail, the discovery of oneself and of the world. Tools are worth as much as they serve this journey.

If the human is what we care about, we cannot avoid a careful reading of what is changing in the way we understand it. The risk we perceive is a subtle one: the problem is not that we are interpreting artificial intelligence by human criteria, but that we are beginning to interpret the human by criteria modelled on artificial intelligence. It can thus happen that we affirm with conviction the importance of human relationships and human experience, without realising that it is no longer obvious what relationship and experience actually are for us. If we interpret human relationships on the model of an artificial assistant that responds to every need without ever contradicting us, confirms every request and never introduces resistance, otherness or contradiction, we have already lost sight of what a human relationship truly is. A relationship, in fact, is not merely an immediate response to a need. It is an encounter with the other, experience, discovery, question, limit, body, word, silence, error, conflict, reconciliation, imperfection, patience, disappointment. It is a place where one learns, grows and is challenged to go out of oneself. From this risk derives the educational task that we feel to be ours: to help young people experience the taste of these dimensions, without assuming that they already know them or recognise them spontaneously.

This task challenges the teacher first of all. When we say that teachers must focus on relationships rather than on the mere transmission of content, we must at the same time help young people to understand the beauty of relationships, and rekindle in them the pleasure of discovery, the value

of experience, the good effort of learning, responsibility for one's words, and the role of the body and of encounter.

This is what Ignatian pedagogy recognises as the centrality of experience: what matters is not transmitted through statements, but activated by having people experience it, by generating real experiences within the school journey in which students can first become involved and then reflect, discern and act. From this awareness follows a consequence that may seem paradoxical: when at school we invest in giving space to relationships, or in education we value the dimension of the body and of sport, encounter, community, silence and shared work, we seem to be dealing with areas unrelated to technology; in reality these choices arise precisely from reflection on technologies and on the anthropological questions that their use leaves open.

Safeguarding the human being in growth does not, however, mean adopting a one-sided judgement on technologies. Precisely on the basis of what we care about, the work carried out has brought to light some tensions that do not seem destined to find a definitive solution, but that need to be continually recognised and assessed with discernment in concrete educational situations. Some of these directly concern the relationship between technology and personal growth. A first tension is that between personalisation and standardisation. Digital technologies offer the possibility of adapting content and its forms, together with pathways, languages and rhythms, to the needs of each student. This flexibility, however, risks becoming impoverished and degenerating into standardisation, reducing ways of learning, expressing oneself and choosing to ever more similar and predetermined models, if it is not rooted in deep knowledge of the student's context: a knowledge that the machine does not grasp and that it is the task of human beings to bring. The personalisation made possible by technology does not, therefore, automatically coincide with greater originality on the part of the person. A second tension concerns the very meaning of learning, and it is that between the expansion of possibilities and personal appropriation. Digital technologies, and artificial intelligence in particular, can enormously expand the amount of information, the perspectives and the forms of expression available to students; but this very abundance can also reduce the personal work of researching, processing and building knowledge, when the tool is used in place of processes that ought instead to mature within the subject. These tensions are not resolved once and for all by choosing one of the two poles. They recur in different forms as tools, ages and educational situations change. Rather, they ask to be inhabited, and it is precisely in inhabiting them that we experience what is human: it is within these tensions that the process of generating internalised knowledge that we care about can take place. This is why they require not only rules, but a permanent capacity for discernment: asking each time what a technology makes possible and what it risks weakening in the person's journey of growth.

Finally, the task of safeguarding the human being in growth is entrusted not to rules but to people: the dimensions we want to safeguard and give back require adults who embody them. Technology, after all, has always accompanied human history, and humanity has always had to live by

integrating profound changes in tools, languages and forms of knowledge: technology must therefore be recognised as a fact of reality, which it makes little sense to think of avoiding, just as it makes little sense to exalt it naively and without discernment. What has made the difference in education through all these historical transitions has been the presence of witnesses: adults who embody values capable of proposing a meaning, and who for that very reason attract young people and lead them to question their own possibilities of choice; in short, adults as witnesses of meaning, rather than adults able to control and direct every detail of reality. This is a conviction rooted in the educational tradition to which we belong, which has repeatedly recognised that its identity cannot be defined by subjects, procedures or methods, but lies rather in the people who carry it forward, who today are largely lay educators (Spinale, 2025).

Our goal, therefore, can only be a positive outlook: to allow young people's humanity to flourish in an environment marked by the presence of these technologies. An outlook of this kind also transforms the question from which to start: no longer 'how to use technology', but 'what we are called to build' in terms of humanity or a new humanism. Only on the basis of this question will it be possible to assess which tools are truly suited to the educational purpose we intend to pursue.

3.2.3 The principle of responsibility and risk

The third premise concerns the principle by which we intend to carry out this work, and it is a twofold principle, of responsibility and of risk, in which the two terms call for and support each other. Responsibility means not passively undergoing the changes that are taking place, but taking a position in the face of them. As adults and educators, we cannot merely observe what is happening, nor take refuge in a diagnosis that is continually updated but incapable of guiding action. We are called to attempt a path, knowing that to educate always means inhabiting one's own time with intelligence, freedom and discernment.

Risk means recognising honestly that there are no certain paths: none of the possible choices offers absolute guarantees, and whoever moves accepts the possibility of making mistakes and, at the same time, takes on the humility to correct themselves. As a school, that is, as a place of education in which the way of truth is sought together, we accept running this risk first of all as a proposal to our students, our teachers and our families. This principle also determines the right way of reading the sections that follow: the practical guidelines below do not claim to be definitive prescriptions, but are proposals formulated with the determination of those who intend to act and with the openness of those who know that they will have to be continually tested, corrected and developed in practice.

3.3 Method

3.3.1 Teacher training

The first methodological indication arises from a twofold awareness: on the one hand, the breadth of an issue that touches many dimensions and is constantly evolving; on the other, the fact that teachers still experience it as something entirely to be understood and built, with all the emotional resonances this entails: anxieties, fears, enthusiasm, mistrust...

Precisely because no one has ready-made answers, the first area in which we intend to invest is teacher training. We do not conceive of it *in primis* as a mere formality, nor as occasional technical updating, but as a permanent posture, the concrete way in which the school leadership and the teaching staff agree to put themselves continually on the line in the face of the changes of the present time.

From a broad, humanistic perspective, the first movement of training consists in allowing oneself a time of reflective pause, even before learning to use particular technological tools. Adult educators need a space in which to ask themselves what is happening around them: in the world, in the school, in the new generations, in the ways of learning, communicating, relating and building meaning.

It is therefore necessary to give time and space to teachers' deep questions, opening up real places of discussion and dialogue, capable of taking on even the most difficult and problematic aspects of our time. There is no getting round the sense of bewilderment that can arise in the face of such great changes; the sense of powerlessness before the power of technologies and the economic interests that often sustain them cannot be ignored; nor can the temptation, understandable but insufficient, to go back and try forcibly to simplify what is in fact complex today be dismissed too easily.

Without time devoted to these deep questions, training in tools would risk being reduced to a rather unproductive drill, incapable of producing lasting effects. The idea, rather, is that precisely by questioning the digital and technology, teachers will feel invited to reflect more broadly on the changes in the world, in the new generations and in the school, and to become protagonists of a possible path for the future.

These are questions that no one can carry alone. Precisely because the answers are not available at the outset, they can only emerge from shared work: training of this kind has as its protagonist the teaching staff as a body, even before the individual teacher, and it grows to the extent that attempts, difficulties and successes are pooled, nourishing a community of practice. This is why training also requires dedicated accompaniment for the educating community as a whole, offering it stable times and spaces for reflection, dialogue and sharing.

Training understood in this way is not limited to updating skills: it is the place where the change of attitude in teachers that the present time demands can mature. Teachers today are no longer the sole holders of knowledge, and they must reckon with an access to content that no longer passes exclusively through their mediation. This does not diminish their role; on the contrary, it makes it even more decisive, but it changes their posture.

Teachers are called to rediscover themselves no longer first and foremost as providers of content, but as designers of learning experiences, facilitators of reflection, companions in the construction of meaning and coaches for action, that is, for translating the knowledge acquired into life, in the perspective of Learning by Refraction. Teachers, in other words, are called to rediscover a function of accompanying students in their process of learning and growth; for them certain qualities become increasingly important: the ability to recognise the student's emotional dimension, listening, educational coaching, the courage to make a proposal.

Teacher training, then, is not only about the use of technology. It is about the way the adult educator interprets their role at a time when technology is changing the conditions of learning, but does not remove, and indeed makes even more urgent, the need for witnesses capable of accompanying, guiding and generating meaning.

Recognising the primacy of this reflective training does not, however, mean neglecting knowledge of tools and training in their use. The lack of this aspect would seriously undermine the teacher's task of accompaniment, for two reasons.

The first reason concerns the relational profile of teachers, who are called to know the student's world. If teachers do not know the space and environment that students inhabit, with all that this entails for self-awareness, emotional and relational life and the building of an inner life, they will hardly be able to reach them and make what students experience the starting point for meaningful learning pathways.

The second concerns the teacher's agency in teaching and education. Those who do not feel at ease in a technological environment will find it hard to guide students towards a use of artificial intelligence that enhances knowledge, and equally hard to point out with confidence the uses that impoverish it. Teachers must be able to feel that they are really making a difference, both in their students' journey of learning and growth and with regard to the founding values of their own subject.

Nonetheless, precisely because tools change their names, interfaces and rules every few months, training in their use should be conceived, in this specific respect, as short and periodic updating rather than as a single, initial course, planned differently for each category of user and with at least two review points a year. After all, a school that introduces artificial intelligence systems into the classroom is a deployer of them within the meaning of the European Artificial Intelligence Act (2026), which requires measures to be taken to ensure the AI literacy of its staff.

3.3.2 Small-scale experimentation

The second methodological indication follows directly from the principle of responsibility and risk: precisely because there are no certain paths, before extending technology-based solutions for innovation in teaching on a large scale, or adopting them as a paradigm, we intend to adopt small-scale experimentation as our working method. This means proceeding through limited experiences that are carefully designed, accompanied and evaluated. We do not want to turn every intuition immediately into a general model, nor to adopt as a paradigm what has not yet been sufficiently observed in practice. At the same time, we do not want to stand still. Small-scale experimentation makes it possible to move with courage and prudence together: it allows us to try, verify, correct and relaunch.

In this work we also intend to involve people from outside the school in designing and evaluating the experiments themselves. An outside perspective can help to formulate hypotheses better, to observe the effects of the practices introduced with greater freedom, and to prevent the school from evaluating itself only by criteria that are too internal.

The criterion we intend to place at the centre is whether the use of technology being tested makes the educational experience offered denser and deeper. Density and depth have a precise meaning for us, which draws on Ignatian pedagogy and rests on a crucial distinction: that between simply carrying out activities and generating experiences capable of engaging the person and then prompting reflection, discernment and action. At a time when we are urged to accumulate experiences one after another, without any of them being fully digested and made our own, this distinction becomes all the more necessary. Activities may be many, but it is experiences that have been reflected upon that leave a mark on the person and transform them, and this is what constitutes the heart of the educational process. An activity, however well designed and well conducted, becomes a formative experience only when those who live it have the time and the tools to reflect on it: to go back over what they did, to recognise what they learnt from it, where they found it difficult, and what they can take away with them. An experience that is not reflected upon remains incomplete: it is consumed in the moment it happens and does not become a resource to draw on.

Among the experiments we intend to launch, we wish to point to one that goes beyond the boundaries of the classroom and concerns a cornerstone of the pedagogical process: educational alliances, first of all with parents. We intend to try out a ‘school with parents’: a pathway in which school, family and other educational actors can reflect together on issues related to technology, the digital and artificial intelligence, embarking on shared journeys of awareness. In the field of technology this alliance is particularly important. Students grow up in different environments, which sometimes risk conveying contradictory messages. This is why it is crucial for the adult world to find times and places to reflect together, agreeing to question itself and to grow in shared responsibility.

In our experiments we also intend to recognise students not only as recipients, but as a source of knowledge. This is the logic of *reverse mentoring*: those who inhabit an environment before others know its practices, and this knowledge is valuable even when it is not accompanied by critical judgement, which remains the task of those with more experience. From an arrangement of this kind we expect at least four effects. The first is knowledge of actual use: no questionnaire will tell the school what young people really do with the machine, whereas a young person who shows it concretely to a teacher, in a protected setting, becomes a valuable source of knowledge. The second is the reversal of the relationship: students called upon to teach something arrive with expectation and a positive attitude, not on the defensive, and can become active protagonists. The third is recognition: young people use the machine above all for what they love and what makes them curious, and showing how they use it means showing an interest and a potential that the teacher can recognise and draw out. The fourth is an antidote to delegation: those who are called to explain their method, in front of the teacher too, will defend it, and to defend it they must have one.

This approach requires certain precautions. It does not presuppose that young people are competent, but that they are informed. This is why the mentoring works both ways, and the teacher does not thereby give up their role: they exercise it by asking the question that takes the student beyond what they have shown, so as to reflect critically on the tool. The groups of students to work with in this way should deliberately be mixed, including those who have a difficult relationship with school, because calling on only the students who are already able and motivated would risk widening gaps instead of narrowing them.

With this in mind, we intend to set up a student observatory on artificial intelligence: a small group of students from the licei, chosen for their diversity, who meet periodically with the Innovation Committee or another body of the school, with the mandate to report on actual uses and to propose experiments. Students are, after all, the closest outside perspective the school has, and the first who can help us to broaden our view and enrich our research.

3.3.3 Courage in the upper years, care in the lower years

The third methodological indication concerns differentiation between school levels. Precisely because we care about the human being in growth, and precisely because we are aware of the risk of exposing the youngest students to premature experimentation, we intend to adopt as a guiding principle a clear educational distinction: to experiment with greater courage in upper secondary school and to safeguard the lower levels, that is, nursery school, primary school and lower secondary school, with particular care. In the lower levels, the choice of greater restraint in the use of digital tools does not stem from fear, nor from an ideological rejection of technology. It is, on the contrary, a deliberate educational choice. It recognises that certain ages need above all body, relationship, play, manual activity, language, imagination, attention, care for time, concrete experience of the world and real encounters with others. At these levels, therefore, the experiment we want to attempt

is itself an innovation: an educational experience that is deliberately sparing in digital tools, affirmed as an educational principle and not suffered as a lack or a fear.

Here the Ignatian criterion of 'tantum quantum'[12] applies: a tool is to be introduced to the extent that it really appears capable of serving the educational good of the student, at that particular age, in that specific situation, within a clear formative plan.

This criterion makes it possible to avoid two opposite risks: on the one hand, the indiscriminate introduction of digital tools simply because they are available or culturally dominant; on the other, the a priori rejection of all technology, which would prevent us from recognising when a tool can genuinely support learning, creativity, inclusion or communication.

In the upper years, by contrast, we intend to proceed with greater courage in experimentation. Older students can be accompanied towards a more conscious, critical and responsible use of digital technologies and artificial intelligence, not least because they are approaching university, professional and social contexts in which these tools will be ever more present.

The school's task will then be not to leave students alone in front of the tools, but to help them understand their possibilities, limits and risks, and their ethical, cognitive and relational implications.

The principle already stated nonetheless remains valid: technology does not coincide only with artificial intelligence, nor only with screens. For the youngest children too, experiences of other kinds remain open, which we intend to continue studying, exploring and innovating. The point is not to decide once and for all whether technology should enter the school or stay out of it, but to discern when, how, why and in the service of what kind of growth it can be introduced.

3.4 Content

3.4.1 Teaching beyond the frontal lesson

As regards concrete teaching practice, the first direction we intend to take is that of an innovation that seeks to go beyond the frontal lesson alone and is founded on the active involvement of students, with a conscious use of technology directed to this end. This choice does not arise from a rejection of the frontal lesson, which retains its value when it is well prepared, well conducted and part of a broader pathway. It arises rather from the awareness that learning today calls for more participatory experiences, in which students are not merely recipients of content, but subjects progressively involved in building knowledge. From this perspective, technology is not the aim of innovation in teaching, but one of the possible tools. The purpose of the tools is to foster richer, more active and deeper teaching, without bending teaching to the logic of whatever tool is available.

[12] *Translator's note.* From the Principle and Foundation of the *Spiritual Exercises* of St Ignatius of Loyola (no. 23): created things are to be used 'in so far as' they help us towards the end for which we are created, and set aside in so far as they hinder us.

We therefore want to try out forms of active teaching, from peer learning to the flipped classroom, from active learning to critical exploration, together with more collaborative and interactive forms of teaching, in which building knowledge is not merely a process of receiving from the teacher, but an experience of research, discussion, reworking and co-construction that actively involves students, including in dialogue with one another. Within this direction we want to understand how technological tools, as defined in the premises, can be used consciously by teachers to foster teaching of this kind, more participatory and inclusive.

The criterion remains educational: a tool should be introduced not because it makes a proposal more brilliant or quicker, but because it helps students to understand better, to question more deeply, to collaborate with greater responsibility, to develop awareness of their own learning, and to relate what they learn to their own experience.

3.4.2 Learning objectives on the use of artificial intelligence

The second practice we intend to introduce concerns subject pathways. Within the various subjects it will be appropriate to identify some specific learning objectives on the use of technology, and in particular of artificial intelligence, as a means of enhancing knowledge rather than impoverishing it. In practice, this means setting aside, within each course of study, a certain number of hours devoted to showing experientially a positive use of artificial intelligence to formulate better questions, compare hypotheses, analyse texts or data, check processes, explore perspectives, rework knowledge, and recognise errors and limits in the answers generated. Alongside this, it will be just as important to show the uses that impoverish learning: when artificial intelligence replaces thinking instead of supporting it; when it produces answers that are not understood; when it leads students to skip the process; when it reduces research to a quick submission; when it leads students to delegate to the machine what should instead become a personal appropriation of knowledge.

As indicated in the Report, revealing how the machine works itself becomes an explicit educational objective. We can translate this into a cross-curricular learning objective, which might be getting to know the machine: not a lesson, but a short series of experiments to carry out in class, such as comparing three answers to the same question, asking for sources and checking them, deliberately inserting an error into a text to see whether the machine finds it, and discovering how the answer changes when the initial instruction changes. A few hours per school level are enough for students to have a correct idea of what they are dealing with, which is the precondition for any critical use.

This attention to understanding the use of technology goes hand in hand with a reflection that we consider necessary and intend to pursue: which cognitive and process skills we want to preserve in school, among those that technology is putting at risk as it automates processes. We point to at least three.

The first is the appropriation of content. It is not enough for content to be available: for it to become truly formative, it must be worked through, understood, reworked and made one's own. Knowledge does not educate simply because it is accessible, but because it enters a personal and internalised learning process. Knowledge understood as information, easily found thanks to technology among other things, is sometimes confused with this fundamental process of appropriating content. Helping students to understand this difference is a crucial step in their formative journey.

The second is metacognition, that is, the capacity to reflect on what one is experiencing within the pedagogical process and on how one is growing within the school environment, developing self-awareness.

The third is the ability to ask questions. We are experiencing a cognitive shift whereby building knowledge is no longer first of all about finding pre-established answers, but about learning to ask questions and setting out on the path of searching for the truest answers.

For this work it may be necessary and useful to involve experts from outside the school as well, making it at the same time a training opportunity for teachers.

3.4.3 Assessment based on the critical use of artificial intelligence

The third practice we want to try out concerns assessment. Artificial intelligence poses profound questions for traditional forms of testing learning. If some products can be generated quickly by digital tools, the school is called to rethink carefully what it intends to assess: not only the final result, but the process; not only the correctness of the answer, but understanding; not only the production of a piece of work, but the ability to argue, discuss, correct, justify and take responsibility for what one presents. From this perspective, we intend to try out forms of assessment based on a critical use of artificial intelligence.

A first possibility is to have artificial intelligence produce the solutions to tests and to comment on them together, under the teachers' guidance. This allows students to question the quality of the answers generated: what is correct? What is superficial? What is missing? Where is an error hidden? What idea of knowledge emerges from that answer?

A second possibility is to ask each student to compare their own solution with the one provided by artificial intelligence and to discuss it critically. In this way technology can become an occasion for metacognitive reflection: students do not merely receive a correction, but learn to observe their own thought process.

A third possibility, to be developed gradually, is to use artificial intelligence as a subject of peer discussion: students, guided by the teacher, can compare different solutions, evaluate the quality of the arguments, recognise the role of sources, distinguish between plausibility and truth, and learn to give critical reasons for a judgement. For this comparison one can exploit a feature of the machine:

the same question, asked several times, produces different answers, often with different conclusions. Three solutions to the same test can then be generated and distributed to three groups, who are asked which is the best founded and why, possibly using different artificial intelligences.

Using the machine also offers concrete ground for assessing process. The written request to the machine makes the question explicit, and the conversation that follows is an artefact that can be read and kept. The assignment can then become 'show me how you questioned the machine' rather than the question 'did you use the machine?', aimed at invalidating the artefact produced, and the log of the conversation can go into the student's portfolio alongside the successive revisions of the work. This yields a single, simple rule: declare the use and show how you went about reaching the required result.

These forms are not intended to replace the teacher's assessment, nor to delegate educational judgement to the machine. They are rather forms of active discussion of the testing of learning in the various subjects, enhanced by a critical use, guided by teachers, of the solutions provided by machines: a first way of trying out a dialogue between teachers and students on the use of artificial intelligence that is not left to pure spontaneity. In this way they strengthen the teacher's role as guide of the learning process and as critical mediator. Assessment remains a profoundly educational act, because it helps students to become aware of their own journey, their progress, their weaknesses and their possibilities for growth.

3.4.4 Governance of tools

The last indication in this section concerns the tools themselves: which ones enter the school and with what configuration. The choice of tool and the way it is set up is in fact a pedagogical act, and as such it must be decided by the school, not left to chance.

Artificial assistants, the ones that respond to every need without ever contradicting, are not compliant because of some property of the technology, but because of a product choice. The accommodating answer, in a sense, feeds the market. The same models, configured differently, can withhold the solution, ask the student what they have already tried, and return a question instead of an answer; and environments designed for education allow the teacher to set these rules. We need to reflect carefully on the fact that, if the assessment practices described in the previous section were carried out on an ordinary smartphone, with a personal account on a free assistant, the educational outcome would be decided by the provider.

Hence the need to establish who decides which platforms enter the school, according to what criteria and with what review procedure. The criteria we intend to adopt concern data processing, regulatory compliance, the possibility for the teacher to configure the tool, the real cost and the stability of the provider. Without a shared rule, the choice would end up depending on the initiative of the individual teacher or on the pressure of commercial offers.

To these criteria are added conditions that are technical only in appearance: use at school requires institutional accounts, with data that do not feed the training of models, and compliance with the legislation in force, starting with Law 132/2025 (2025)[13], which requires the consent of those exercising parental responsibility for children under fourteen to access artificial intelligence technologies. These conditions decide, in practice, which tools can enter which school levels and with what procedure towards families. For this work to hold up over time, an internal coordinator needs to be appointed to follow the evolution of the tools and to filter the offers that reach the school.

A final indication concerns the starting point. It would be important to begin experiments with tools restricted to a closed set of sources, that is, tools capable of answering only on the basis of the documents uploaded and of citing the passage from which they draw each statement, before opening the field to general-purpose tools. Tools of this kind drastically reduce so-called hallucinations and make checking a practical gesture rather than an exhortation. They also support two of the objectives already indicated: the appropriation of content, because it is the student who provides and selects the sources, and the ability to recognise errors and limits in the answers, because every statement can be checked against the original text.

3.5 Operational conclusion: first actions and criteria for review

The guidance set out so far now needs to be translated into a concrete, progressive and verifiable path. We do not intend to turn these guidelines into a set of rigid prescriptions, nor into a finished model. We wish rather to start an orderly process, capable of setting the school in motion, accompanying teachers, involving families and verifying over time what really helps students to grow.

For the 2026/27 school year we therefore identify some first practical directions.

First of all, it will be necessary to start a stable programme of teacher training, which is not limited to the use of technological tools, but offers times and spaces to reflect on the change under way, on the transformations of learning, on the role of the teacher and on the anthropological and educational challenges posed by the digital and by artificial intelligence. We conceive of it as a community journey before an individual one, on the model of the work from which these pages arise: months of discussion between teachers and experts from different fields, a shared space for reflection and an opportunity for collective training, in which each of us learnt more than we could have done alone.

Secondly, some small-scale teaching experiments will be promoted, particularly in the upper years, according to clear criteria of design, accompaniment and review. These experiments will have to be evaluated not only on the basis of their technical effectiveness, but above all on the basis of their capacity to make the educational experience denser and deeper.

[13] *Translator's note.* Law no. 132 of 23 September 2025 is Italy's framework law on artificial intelligence, which complements the EU Artificial Intelligence Act at national level.

Thirdly, a pathway of educational alliance with parents will be started, because the question of technology cannot be addressed only within the school. The growth of students calls for an adult world capable of questioning itself together, recognising its own struggles and building greater educational consistency.

Fourthly, the various subject pathways will begin to identify some learning objectives relating to the critical use of technology and artificial intelligence. The aim will be to help students understand when these tools can enhance knowledge and when, instead, they risk impoverishing thought, personal research and the appropriation of content.

Finally, some forms of assessment and discussion of learning involving a critical use of artificial intelligence will be tried out: not to replace the teacher's judgement, but to help students compare, argue, recognise errors, justify choices and reflect on their own learning process.

At the end of the school year, the Innovation Committee, together with the school leadership and the teachers involved, will gather the outcomes of this first year of work. The review will need to cover at least three dimensions: what really fostered students' learning; what helped teachers to rethink their educational practice; and what made the alliance between school and family more aware and more a matter of shared responsibility. For this review to be fruitful, it seems important to treat it as an opportunity to reflect on and draw together the observations gathered during the experiment. For this reason, a suitable methodology will need to be found for 'keeping a diary' of what happens during the activities, rather than postponing evaluation to the end of the year alone.

Only what has shown a recognisable educational value can gradually be consolidated and become a stable part of the life of the school. What appears fragile, insufficient or inconsistent with our mission will have to be corrected, rethought or abandoned.

These guidelines arise from the work of this school, the Leone XIII, but from the outset the research did not intend them to remain confined to it. Some of the actions proposed, in particular teacher training, the educational alliance with parents and the teaching experiments, find a natural extension in exchanges with the other schools of the network, where similar initiatives are already under way. Pooling attempts, difficulties and successes can enrich the journey of each school and offer a basis for recalibrating these guidelines to different contexts. From this perspective, scientific monitoring and the final review of the experiment will be decisive.

In this sense, the work on technology itself becomes an exercise in Ignatian discernment: observing reality, gaining experience, reflecting, evaluating the fruits, correcting the course and choosing what most helps the integral growth of the person.

The ultimate goal is not to introduce more technology into the school, but to educate better in the age of technology. We want to accompany our students in becoming people capable of thinking, discerning, choosing, relating and acting responsibly in a world permeated by the digital, safeguarding what makes the human truly human.

The working group

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Appendix A. Extended minutes of the meetings

List of meetings

No.	Speaker	Role	Date	Page
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2	Matteo Lancini	Fondazione 'Minotauro', Milan; Università Cattolica, Milan	1 December 2025	106
3	Susanna Sancassani	Head of the Centre for Innovative Methods and Technologies for Learning (METID), Politecnico di Milano	15 December 2025	117
4	Luigi Ballerini	Author of fiction for young readers, physician and psychoanalyst	19 January 2026	129
5	Luigi Ballerini	Author of fiction for young readers, physician and psychoanalyst	2 February 2026	143
6	Gabriel Velez	Marquette University	16 February 2026	158
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MEETING 1

Giulia Guglielmini, President of the Fondazione per la Scuola of the Compagnia di San Paolo

Talk of 10 November 2025

A. Main themes emerging from the speaker's talk

The context: anthropological and cognitive change

A new forma mentis: The digital revolution has introduced a new *forma mentis* in young people: '***networked thinking***', rapid cognitive processes, non-linear learning. These are not simply instrumental changes, but a genuine anthropological and cultural transformation under way (Rivoltella, 2017).

Procedural and immediate learning: Technological and digital innovation influences learning by stimulating action and favouring procedural knowledge, linked to ***'know-how'***, often acquired implicitly through imitation, association or chance events. These processes foster '***immediate learning***', driven by personal interests and capable of sustaining both intrinsic and extrinsic motivation. From Web 2.0 onwards, digital media have become collaborative and connective tools, supporting the sharing and social construction of knowledge.

A multiplicity of environments: diffuse and de-institutionalised learning: School is no longer the only place of knowledge: technologies expand learning environments, giving rise to '***diffuse and***' '***de-institutionalised***' learning distributed across many contexts. This scenario recalls the pedagogy of the '***ecology of knowledge***' (Morin, 2001; Bateson, 1972), which invites us to value the plurality of sources and the connection between formal, informal and non-formal learning.

Educational risks and new vulnerabilities: Technologies widen opportunities, but bring with them significant educational risks. These include:

- digital inequalities
- cognitive overload and scattered attention
- dependence on digital stimuli and a reduced capacity for sustained concentration
- social isolation
- the impoverishment of authentic relationships, to the point of a 'disembodied' digital world

Digitalisation therefore brings risks of fragmentation, isolation and cognitive overload that amount to '***new educational vulnerabilities***' which the school must take on.

The role of the school and of teaching: a new meaning for the educational process

The school as a reality and a place for interpreting reality: The school is not only called to interpret reality: it can and must become '***the privileged environment in which students learn to interpret reality***' and '***acquire the methodological***' '***and critical tools***' to do so in everyday life. Its role is to offer

'***meaning, criteria, critical tools***'**.** In a context of rapid transformation, it must be able to guide change critically while maintaining its educational and cultural centrality. The digital revolution thus becomes an opportunity to rethink the meaning of education, strengthen the educating community and govern change by placing at the centre '***the person, relationships, ethical and social growth***'.

Activities or experiences? Meaning or significance?: The task of the school is '***to offer meaning, criteria and critical tools***'. From this perspective, it is crucial to distinguish between simply ***'doing activities'*** and ***'generating experiences'***: in today's school there are many activities, but it is '***experiences***' that turn them into '***lasting***' learning. Similarly, attention must shift from '***meaning***' in a generic sense to '***significance***', understood as an anchoring in '***the concrete reality of students***'; this shift makes it possible to keep the focus firmly on reality and to consolidate the educational centrality of the school as an institution.

Educational mediation: intentionality, meaning, transcendence: Educational mediation is recognisable in three principles. '***Intentionality***'**,** often submerged in the so-called hidden curriculum, must be made explicit: why am I proposing this activity? With what formative objective? This intentionality is answered by reciprocity, which calls for the real participation of students. '***Meaning***' requires attention to languages and contexts: diverse classes, with different cultural backgrounds, demand particular care for shared words and references. Finally, '***transcendence***' refers to going beyond the immediate: from the *here and now* to a '***forward-looking dimension***'. In this logic, for example, '***knowledge***' becomes '***competence***' when what is learnt is '***transferable***' and '***usable***' in different contexts.

The centrality of the educational relationship: The digital transformation cannot be reduced to a mere technological update: the real pedagogical challenge lies in '***keeping the educational relationship at the centre***' of the formative process. The school continues to be a '***place of intentional, meaningful relationships***' and of '***mediation***' between forms of knowledge and between generations. This recalls the '***pedagogy of relationship***' (Buber, 1923; Noddings, 1984), for which the '***authentic encounter***' between teacher and student is the heart of education and the precondition for giving meaning and continuity to learning.

Critical education for digital citizenship, the school as a 'hub' of meaning: Digital innovation calls for reflection on the formation of citizens: the school is called to develop critical, ethical and social competences, not only technical skills. In line with critical pedagogy (Freire, 1970), the aim is to ***'read the world'*** beyond the text, giving students the tools to decode, evaluate and act consciously in the digital space, also with a view to countering disinformation and inequalities of access. From this perspective, the school becomes a '***hub of orientation and meaning***': what happens outside finds meaning and criteria of interpretation within it.

Social and emotional learning: A new '***emotional and relational literacy***' is a priority (an example was given of describing the feeling of anger). In this direction, the '***pedagogy of listening***' (Rinaldi,

2001) and socio-emotional education programmes are privileged tools for supporting pupils' physical and mental well-being and for fostering lasting learning.

Methodological innovation and student agency: To innovate means to go beyond the frontal lesson as the only model and to promote active teaching approaches that recognise students as protagonists of their own learning. This includes '***responsible self-teaching***', real spaces of '***choice***' (optional elements) and the right to '***explore and make mistakes***' in order to grow. Agency is an exercise in responsibility: 'I made the choice; the school allowed me to experiment and make mistakes'.

The role of teachers

Continuing professional development and the professional community: It is essential to reaffirm the importance of the '***continuing professional development***' of teachers and school leaders, together with building solid and participatory '***communities of practice***' (including on the use of '***AI***', in its professional and personal dimensions). This perspective recalls the '***pedagogy of reflexivity***' (Schön, 1983): we learn better '***together***', pooling experiences, questions and good practice, and turning peer discussion into a stable mechanism of professional development. '***Transdisciplinarity***' plays a decisive role, since it makes it possible to start from multiple perspectives and bring them together into a common horizon capable of integrating knowledge, values and practices.

Mutual observation, feedback and review of practice: In the current organisation of schools, '***mutual observation***', '***exchange of feedback***' and '***systematic sharing***' still receive little attention. This limits the possibility of critically reviewing one's own methods: in class councils it often seems that everyone goes their own way, bringing different 'worlds'; in subject departments, and sometimes in training sessions themselves, perspectives tend to collide without producing real integration. What is needed instead is structured support that encourages collegial reflection and the ability to evaluate the effectiveness of teaching choices.

From individual practice to shared practice, scientific evidence: To consolidate improvement, teachers are called to '***draw on scientific evidence***' about what works best. The aim is to move from individual '***practice***' to the school's '***shared practice***': to experiment, certainly, but then to '***find a common narrative***' that makes innovations transferable and places them within a coherent collegial vision.

Neuroeducation and the digital transformation: reflections and effects on the school. Guiding educational practice

Neuroeducation is a discipline that integrates the findings of cognitive neuroscience with pedagogy and teaching, with the aim of making teaching more effective and personalised. It is based on an understanding of the neurobiological processes that regulate learning, such as attention, memory, emotions and motivation, and suggests teaching strategies that respect the way the human brain works.

Key principles of neuroeducation applied to the digital school

Brain plasticity and lifelong learning

Neuroscience shows that the brain is plastic and changes in response to experience. The digital environment, rich in stimuli and possibilities, can encourage the building of new neural connections, but it also requires '***attention to the quality and quantity of the stimuli offered***'**.** It is important to pay attention to the forms of learning: '***pre-activation, surface, deep and conceptual learning***'**.**

- '***Surface learning***' *is characterised by memorising information without real understanding or connection with prior knowledge. Students focus on isolated details, often to pass a test or answer specific questions, but without integrating the new content into a broader cognitive structure. This kind of learning is fragile and tends to fade quickly, because it lacks personal meaning and deep connections.*
- '***Deep learning***' *involves understanding concepts, the ability to connect new information with knowledge already acquired, and the application of what has been learnt to different contexts. Students who adopt a deep approach try to make sense of content, ask questions, make connections, reflect critically and are driven by genuine curiosity.*
- '***Conceptual learning***' *represents an even more advanced level, at which students are able to abstract, generalise and build new mental categories. It is learning that goes beyond mere understanding and application, reaching the creation of new conceptual schemes and the ability to transfer knowledge between different fields. Conceptual learning underpins critical and creative thinking, and it develops through metacognitive reflection and the experience of complex situations.*

- **The role of emotions** Emotions are fundamental to learning processes: a motivating, inclusive and safe digital environment encourages memorisation and active participation. Digital teaching must therefore include practices that stimulate '***students' curiosity, engagement and emotional well-being***'**.**
- **Attention and memory in the digital age:** The use of technologies can foster multimodal learning (texts, images, video, interactivity), but it can also generate cognitive overload and distraction. It is important to design '***activities that alternate periods of concentration and breaks***', and that help students develop strategies for managing attention and memory. Independent management of time for learning?
- **Structuring effective feedback:** Feedback is a fundamental tool for learning: it helps students to understand where they are, where they need to go and how to get there. Effective feedback is part of a climate of formative assessment, in which motivation, curiosity and willingness to learn are goals for everyone. It is important to normalise and celebrate mistakes, promote equity in learning and value intrinsic motivation. Feedback must always be directed at the task, not the person, and preferably immediate, although delayed feedback is also useful. For

feedback to be taken on board, students need self-efficacy, trust and understanding. The feedback that students give the teacher is just as valuable. Features of effective feedback:

- ***Setting goals:*** *Goals must be specific, challenging and understandable for students. Feedback must refer directly to the task.*
- ***Type of feedback:*** *It must highlight both strengths and areas for improvement, offering concrete suggestions and promoting self-assessment.*
- ***Level of feedback:*** *It can address the task, the process or self-regulation (metacognitive). Generic feedback, or feedback focused only on the person, is ineffective.*

Personalisation and differentiation

Neuroeducation stresses the importance of recognising individual differences in learning processes. The latest digital technologies make it possible to '***adapt learning pathways to the different cognitive styles, paces and needs***' of pupils, fostering inclusion and the development of each person's potential within heterogeneous or homogeneous learning groups and optional subjects.

Active and meaningful learning

Neuroscience suggests that learning is more effective when it is active, '***experiential and contextualised***'**.** The use of methodologies such as cooperative learning, gamification, learning by doing and enquiry-based Project Based Learning, supported by digital tools, together with the introduction of 'learning contracts' and flexible frameworks for deadlines, stimulates participation and the independent construction of knowledge.

Discussion: main themes emerging

A new humanism and a radical rethinking of the school: The paradigm shift is read as an opportunity: the new humanism. This means 'dismantling' some of the school's established features in order to reset it at a more fundamental level, placing the person at the centre and not only questions of content. The aim is not to add knowledge, but to prompt reflection on practice and open up concrete possibilities for transformation.

Student agency and shared responsibility, an example: Agency is understood as students taking on responsibility and having the possibility to choose. An organisational example emerges: subject classrooms with students moving between them. After initial fears, pupils learnt to organise themselves, lateness was dealt with, and personal responsibility increased, because 'it was up to them'. It is crucial to decide with students, not about them.

Personalisation and the role of the class group: There is a sense that personalisation taken to the extreme risks being the end of the class group: if everyone does different things, how is a shared dialogue rebuilt? What added value does the class group bring?

Students' loneliness with AI and teacher training: Research that was cited shows that many students '***learn on their own***' how to use AI and '***feel alone***' in doing so**.** This '***undermines the intentionality***' proclaimed by the school: it ends up being the student who 'carries' the teachers. It then becomes crucial for teachers to '***believe in students' capacity to learn***' and, at the same time, '***in their own capacity to change and learn***'; hence the need for specific '***training***'.

New vulnerabilities and the crisis of credibility of the school as an institution: With the transformations under way, '***new vulnerabilities***' are emerging: for some, school is perceived as an '***obligation in name only***', remote from their own desires. The testimony was reported of someone who had never felt '***recognised***' by a teacher: in this way the institution loses '***credibility***'. The risk is a school that '***is not the one we would like***' and that '***loses relevance***' if it remains an agency for the mere transmission of content.

Relations with families and growing disputes: An '***increase in disputes***' with families is reported, which '***distances***' the school from social recognition and '***wears down***' the educational pact. This is a delicate front, with a direct impact on the climate of the school community.

Collaboration between teachers and families: a virtuous example: A case presented (a class in which half the students were of non-Italian origin, in a socially mixed and disadvantaged context) shows that **coordinated work** (involving families, a teacher trained in emotions, a smaller class) can lead to '***positive learning outcomes***'.

Well-being, enjoyment of going to school and tutoring: A concrete criterion for assessing how well things are working is the '***enjoyment of going to school***'. From this perspective, '***tutoring***' (class-based and peer) supports '***listening to oneself***' and the reworking of experience.

Cognitive load, linearity and Universal Design for Learning (UDL): The question arises of the '***balance***' between '***fast, networked learning***' and '***linear, orderly work***'. '***Cognitive load theory***' is recalled: teachers must '***calibrate information***' and the complexity of assignments. The '***UDL principles***' invite teachers to combine different channels (visual, spoken word, images, etc.) in a '***well-structured***' way, varying the '***channels, timing and sources***' of materials according to '***class and age***', so as to avoid '***dispersion***'.

Practical suggestions, the PTOF and final conclusions

Effects of the digital transformation at school

1) *On teaching: engagement and a pedagogically outward-reaching posture*

- Careful, critical, non-judgemental and selective use of technology

- The need to move beyond the transmissive model and to foster active, inclusive, personalised teaching with a '***high***' '***Emotional Quotient***' (motivating and creating a hook, enriching the lesson with dissonant elements or elements freely chosen by the class, supporting the search for deep meaning and the commitment to act)
- Managing time for learning at school through the '***three-phase lesson***' model, built around three fundamental moments:
  - ***Activation phase:*** *In this first phase, the starting point is students' prior knowledge, and curiosity and motivation towards the new topic are stimulated. The teacher offers prompt questions, brainstorming activities or problem situations that actively involve the class.*
  - '***Central or exploration phase****: This is' the heart of the lesson, in which students work cooperatively, often in small groups, to explore, experiment and build new knowledge. Laboratory activities, authentic tasks, research, guided discussions and the use of concrete or digital materials are favoured. The teacher takes on the role of facilitator and guides the learning process.*
  - '***Reworking and reflection phase****: In' this concluding phase, students share the results of their activities, reflect on what they have learnt and connect the new knowledge with personal experience and other forms of knowledge. Metacognition, formative assessment and the co-construction of success criteria are encouraged.*

2) *On school organisation*

- Rethinking spaces and timetables
- Flexibility and modularity of the curriculum, optional time and subjects
- Widespread training and participatory governance

3) *On day-to-day operations in the school*

- Training teachers in the neuroscientific foundations of learning, in the conscious use of AI and technologies, and in teaching processes according to the inclusive principles of Universal Design for Learning/DigCompEdu
- Planning '***peace***' education activities; adopting restorative justice as a replacement for the disciplinary approach within the school rules
- Designing flexible learning environments, modular spaces that allow digital and analogue activities, group work, '***the movement of students rather than teachers***'
- Designing coherent pathways of '***FORMATIVE GUIDANCE***' in continuity, starting from nursery school (narrative guidance, Future Labs)
- Planning systemic actions for developing the '***emotional and relational dimension***', including at a distance, integrated into the curriculum
- Designing activities on '***agency, service learning, volunteering***'

- Promoting metacognition, helping students to reflect on their own processes and learning outcomes, encouraging self-assessment procedures, and structuring forms of systematic feedback within formative assessment

Three-year planning (PTOF)[14]: strategic lines

Strand 1. Critical Digital Citizenship

Objective: To form citizens capable of acting ethically and consciously in the digital space.

Actions:

- Digital civic education modules (Law 92/2019)[15]/school-work training[16]
- Media education and fact-checking projects/DigComp

Strand 2. Methodological Innovation and Learning Environments

Objective: To move beyond the frontal lesson as the '***only***' teaching model.

Actions:

- Flipped classroom, cooperative learning, gamification
- Flexible, technology-rich learning environments
- Competence-based teaching, authentic tasks, formative assessment

Strand 3. Physical and Mental Well-being for All and Educational Relationships

Objective: To promote well-being, motivation, self-esteem, self-efficacy and a positive climate.

Actions:

- Cross-age PEER EDUCATION and tutoring
- Social and emotional learning programmes
- Teacher training in managing the class and relationships, experiences and emotions
- Relaxation activities, yoga, breathing techniques, meditation

Strand 4. Continuing Professional Development of Staff

Objective: To recognise the '***key role of teachers***' in the transformation.

Actions:

[14] *Translator's note.* The PTOF (*Piano Triennale dell'Offerta Formativa*, Three-Year Educational Plan) is the planning document that every Italian school is required to adopt, setting out its curriculum, organisation and projects for the following three years.

[15] *Translator's note.* Law no. 92 of 20 August 2019 reintroduced civic education as a compulsory cross-curricular subject in Italian schools, with education for digital citizenship as one of its three core strands.

[16] *Translator's note. Formazione Scuola-Lavoro* is the compulsory work-based learning scheme for students in the last three years of upper secondary school, introduced in 2015 as *alternanza scuola-lavoro*, renamed PCTO in 2019 and given its current name by Decree-Law 127/2025.

- Three-year training plans on AI, digital teaching and shared leadership, with monitoring and evaluation of their impact
- Internal mentoring, mutual classroom observation/communities of practice,
- Recognising and disseminating good practice through 'trailblazing' teachers
- Turning individual practices into shared school-wide practice

Final recommendations

1. The digital transformation '***can become***' a '***pedagogical tool for methodological innovation***'.
2. The school must '***govern change***', not be subjected to it.
3. Real innovation is innovation that '***values people, bonds, and ethical and social growth***'.
4. A strong alliance is needed between school, family, local bodies and policy, for '***a shared educational vision that restores meaning to the learning and action of the new generations***'.

Essential bibliography and recommended resources

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- Edulia Treccani Scuola, *Allenare il cervello in classe: la neurodidattica per l'apprendimento [Training the Brain in Class: Neuroeducation for Learning]*.

MEETING 2

Matteo Lancini, Fondazione 'Minotauro', Milan, Università Cattolica, Milan

1 December 2025

A. Main themes emerging from the speaker's talk

A.1. Social change and adult fragility: between bewilderment and loss of authority

- **The context of current change and the fragility of adults:** The meeting brought out how hard it is today to predict the future, especially in the light of how fast things are changing. The theme of technology must therefore be considered in a broad sense and placed within profound social transformations: a crisis of values, individualism, a crisis of institutions and of vocations. The new generations, in fact, are influenced not only by the internet, the smartphone or video games, but by growing up in an increasingly individualistic society. A significant example is assisted reproduction, itself a technological invention, which for the first time made it possible to conceive of a child without the sexual act. This change is radically transforming the construction of identity, the very meaning of the couple and the relationship between self and other. It is not only marriage that has lost its function as a 'for ever' project: the idea of the couple as understood by previous generations, in part, no longer exists among the new generations. Sex is no longer necessary for the survival of the species, and new phenomena such as a growing 'sex recession' can be observed among young people. Although there is much talk of pornography, not enough consideration is given to the fact that, for many young men and women, sexual activity is declining sharply: often they do not have sexual relationships, and when they do, they sometimes do so only to 'keep up' with their peers, without any real interest. The technological revolution must therefore be judged within these broader changes.
- **The radicalisation of positions and the loss of authority:** It was noted that today we are witnessing a radicalisation of positions towards young people, which generates confusion and stems from widespread fragility. The fragility of adults is identified as the central problem, a fragility fuelled by the complexity of the present. As a result, many of the indications given to schools in our country are not really designed for young people, but serve above all to make adults feel adequate. It is not only a question of policies seeking consensus: when people are fragile, they tend to reassure themselves rather than truly see the other. It was observed that today it is hard to recognise oneself in these difficulties, and there is a tendency to respond to the complexities linked to technology with simple, practical instructions, which end up further weakening the authority of adults and, by contrast, increasing the power of the internet and of artificial intelligence over the new generations.

A.2. *The educational role in crisis: recognition, emotions and the construction of identity*

The crisis of the educational role and the recognition of competence: The first question identified concerns what it means to recognise that someone knows, is competent and teaches someone else. The internet and artificial intelligence make this question even more evident, but television and the society of the image had already raised it. The question concerns the role of students, but also that of adults: it is possible to accompany, guide and teach, but if the other does not recognise the competence of the educator, the educational role becomes part of the adult's individual project rather than a real educational relationship.

- **Who educates the adults? 'Illusory' listening and the management of emotions:** A further question raised was: who educates the educators? Who educates adults and parents for the new complexities? Although many aspects of society have changed, education retains a view according to which young people must be contained through limits, boundaries and the transmission of knowledge. It was noted that the prevailing idea today is that young people have been listened to more than previous generations. It is true that they are listened to more than today's adults were in the past, but we tend to forget how many changes have taken place. This listening is described as 'illusory': children are promised a society in which everyone can do what they like, with an unspoken proviso, 'as long as you don't unsettle me, my emotions, my emptiness', and as long as fear, sadness and anger are not expressed. This dynamic is summed up in the expression 'be yourself, but my way'. From this perspective, the new and ever-increasing forms of distress are attributed not to having had too much or to having been overprotected from frustration, but to the fact that young people were asked not to express emotions that disturbed adults busy asserting themselves.
- **Gaps in identity, the parental function and new forms of distress:** It was also observed that, while public debate has long focused on the search for the father figure as a 'third party' capable of separating the child from the 'helicopter mother' or 'snowplough mother', there has been a risk of losing sight of the maternal function itself. One of the most widespread diagnoses attributes today's distress to the fragility of the father and the loss of the containing paternal function; in the discussion, an extension of this analysis was proposed, highlighting also a 'fragility of the mother's role': in particular, the difficulty of listening to and welcoming children's most difficult emotions (fear, anger) with an attitude of gratuitousness rather than projection. These are emotions that are not 'nice to look at or to cuddle' and that are often managed through the projection of adult anxieties rather than through genuine acceptance. This, it is suggested, is why we now find in the new generations gaps in identity, dissociative traits and attacks on one's own body and on the bodies of others that have to do with an emptiness of identity, and therefore with the absence of a solid inner point of reference, no longer with the superego of the traditional normative family or with ideals. Many of today's forms of expressing distress, such as self-harm, derive from this lack. In clinical practice it is stressed that it is

necessary to 'go back to basics', bringing into play a corrective emotional experience: the underlying issue is not primarily that of helping the person to tolerate frustration, but of making up for a lack of core structures that contain needs, needs that are often repressed or silenced while, in discourse, it is claimed that young people are listened to 'much more'.

A.3. *Towards a future school: overcoming fragmentation and valuing the educational relationship*

- **A vision of the school and the difficulty of change**: The meeting stressed that, although many people who know the school system thoroughly (head teachers, school trade union representatives, politicians from different camps) share a fairly clear idea of the direction in which the school should go, actually intervening in the school remains complex.
- **Overcoming the fragmentation of subjects and rethinking knowledge**: It was pointed out that the school continues to be organised around individual subjects, although the need to move beyond this approach has been discussed for decades. 'Subjects' are not an original structure of knowledge, but a historical construction, linked to mass schooling and to the limits of paper-based media, which led to knowledge being divided into compartments. In reality, however, human beings are not built to learn in watertight compartments of this kind. With the arrival of the internet, many experts had seen the possibility of reorganising the school into new forms of interweaving knowledge, to be developed over a few years. In fact, nothing structural has been done. Today teachers still meet by subject, as if this guaranteed better learning, whereas it would be possible to work on broad areas and on a school understood as a convergence of knowledge. This change would not serve simply to adapt to the labour market, but to make young people perceive the existence of a future made of the competences and knowledge needed to be sustainable in the present and in the future.
- **New models of learning centred on 'gaps in learning' and on questions**: It was shown how it is possible to achieve significant results, even in traditional subjects, by starting from 'gaps in learning' rather than from the frontal transmission of knowledge. According to many specialists in teaching methodology, the lesson should no longer start from the implicit pattern 'I know, you do not', but from questions: students are invited to ask, without fear of hearing the answer 'I don't know'. The traditional method of oral questioning was recalled, the so-called question-answer-evaluation 'triad', already criticised in the past by educationalists such as Clotilde Pontecorvo, and considered meaningless even at primary school, and all the more so in the licei. In this method the 'right' answer is the one that reproduces what the teacher has in mind, whereas much of the richness of the learning process lies within errors and incorrect answers. Today this perspective is theorised in terms of the 'learning gap': one starts from what is not known and takes it as the starting point for teaching. In this logic, teachers can choose texts or materials that nobody knows (neither the students nor the teacher) and read or explore them together, building knowledge jointly. The 'knowledge gap' is thus filled by the competences that emerge from the shared work. This implies new models of learning,

abandoning the traditional transmissive lesson and accepting not to be afraid to say 'I don't know'.

- **Assessment, motivation and adaptation to new cognitive contexts**: Public debate often voices the conviction that many young people finish school remembering little or nothing of what they studied, whereas previous generations still retain much of the knowledge they learnt at the liceo. It was suggested that this depends on the link between deep motivation and the learning process: if this link is not built, students study to bring home the mark or the qualification and forget the content immediately afterwards. The question was asked whether we are facing a 'digital dementia' or rather an adaptation of human beings to a new condition, as shown, for example, by the fact that almost nobody remembers telephone numbers any more without being regarded as 'digitally demented' for that reason. In this context, it was observed that the school continues to assess mainly in terms of marks, failures, stickers and symbols (red, yellow, green, smileys, crowns), conveying from the first years of primary school the idea that the main goal is to obtain a measurable result. This leads young people and parents to see school mainly as a means of bringing home the mark or the qualification, overlooking the new difficulties of learning processes, linked both to changes in the cognitive systems of overstimulated new generations and to the overall adaptation of human beings to a different social environment. Seriously rethinking assessment and the practice of failing students is identified as a necessary step in motivating students and supporting the construction of identity.
- **The educational relationship as the linchpin of the school of the future:** The central point identified for the school of the future is the educational relationship. In a motivating relationship it is not simply a matter of 'winning over' young people, but of rebuilding a school in which students feel part of a cultural and formative process. The new generations are described as highly expert in relationships in new forms: they have spent time with many peers since day nursery, they live in the communication society and they are used to picking up on the relational needs of parents and teachers. In general, there are no widespread forms of violent protest or of banding together against adults; what emerges instead is a search for a relationship with adults which is sometimes labelled as fragility or as a lack of distance between roles, whereas it could represent a decisive resource for the future of education systems.

B. Discussion: main themes emerging

B.1. *Moving beyond organisation by subject and rereading educational needs*

In the debate it was asked how, in today's school, it is possible to realise an educational perspective that goes beyond organisation by individual subject, considering that schools have, at least in part, room for autonomy, but are at the same time constrained by the 'sword of Damocles' of the

final examinations, which are structured in a very closed and strongly subject-based way. The question concerned, in particular, how a school community can act to guarantee a model that no longer revolves around separate subjects or follows overly rigid pathways.

B.1.1. Adult projection, misdiagnosis and the return to strictness

Taking up the content of the book *Essere te stesso a modo mio* [Being Yourself, My Way], it was reaffirmed that one of the main problems is adults' projection onto the needs of children and young people. The school is being built on the basis of adults' concerns, not of the challenges that students really have to face.

This pattern was also applied to the theme of technology: the problem lies not with the young person, but with the adult who feels reassured by limiting the child's use of it, while setting no similar limits for themselves. The use of technology is thus traced back to the adult world's desire for control.

According to this analysis, projection has systemic effects: the school system is designed around the concerns of adults and not those of young people, and educational recipes are polarised around the fears of the adult world rather than around what young people really need. This is the context of the 'return to content', to the centrality of content mastery and to strictness, motivated by the idea that 'young people don't know anything any more'. This is, however, a response that springs from adult concern, not from a real understanding of what is happening.

It was suggested that the problem is a 'misdiagnosis': the wrong therapy is being applied because the situation is being misinterpreted. The idea that the school has become 'too soft' and that the solution lies in restoring strictness risks, from this perspective, 'losing the school', and not only the pupils. Why should students continue to attend a school for the sake of content that in the end is not internalised and that can always be found, and found better, online?

B.1.2. Structural limits: subjects, assessment and failing students

It was stressed that any serious project of change, aimed at a school that is truly 'for young people', cannot ignore three structural nodes:

- organisation by subject,
- assessment methods,
- the system of failing students.
- Unless these elements are called into question, every innovative proposal risks being neutralised.

B.1.3. Giving young people responsibility

A fundamental point concerns the relational aspect, which is central even when practical activities are involved: what makes the difference is the kind of experience offered and the accompaniment

of the adult. The presence of an adult capable of taking an authoritative position that is sustainable for growth is considered fundamental.

The new generations work better when they are given responsibility and involved. It is not realistic to think of changing them through purely prescriptive methods. This does not mean that it is possible to engage everyone in a class; it means rather that students who are really involved enter into a model of responsibility, continuity and process in the relationship, feeling part of the formative journey.

In this sense the idea of a 'learning gap' is recalled: a gap that the new generations perceive ever more clearly, as do other educational settings, informal ones included (companies, parish youth centres) that work better when young people are called upon and actively involved. The school, by contrast, tends to maintain a predominantly controlling model, which contributes to the disconnect between formal success at school and what then happens at subsequent transitions, in particular on entry to university.

B.1.4. School, technology, mobile phones and adult dissociation

A central theme concerns the relationship between school and technology. It is observed that, while in schools mobile phones are banned until the end of the day, the whole world, the press included, operates on the internet, and entire public debates arise and develop exclusively on social media.

At the same time, all schools use the electronic register or set homework on Friday afternoons. The example is given of a teacher who sends a disciplinary note to parents at 10 p.m. via the electronic register, with the result that the child no longer wants to go to school: an episode read as indicative of adult dissociation.

From this perspective, the school should be the place where 'what happens in the world happens'. The idea of keeping mobile phones switched on does not mean teaching with the internet, but recognising that this is the life in which young people will move and in which they will build their own project. The only real possibility identified is an approach that welcomes all the tools of young people's lives (artificial intelligence included) into the educational pathway.

Measures such as confiscating mobile phones are read as measures that reassure adults but push young people further and further towards the internet, outside a formative relationship. It is considered difficult for students to believe teachers or psychotherapists who urge them to 'stay away from the internet' while spending a great deal of time online themselves.

B.1.5. Artificial intelligence and a new authority for the adult

It is stated that artificial intelligence cannot really be stopped. Consequently, the question becomes: what space remains for the adult? If, at a moment of need, young people do not find adults

available (long response times, practical unavailability), it is understandable that they turn directly to AI platforms for help.

In this context the role of the adult is considered decisive. The 'dysfunctional' adult can cause deeper harm than in the past, precisely because of the new vulnerabilities. The example is given of teachers who build a strong initial bond (welcoming young people, sharing informal experiences), but then fall back on the logic of 'I'm failing you for your own good', creating a promise of closeness that is immediately broken. This produces a sense of betrayal, especially when the young person does not conform to the old model.

This dissociation is identified as one of the factors fuelling the crisis in the new generations today, expressed also through deep anguish and self-harming behaviour. Examples are given of young adults with brilliant degrees, sought after by several companies, who say they 'always feel anxious' and 'always feel unwell', never having been able to give voice to authentic parts of themselves. In this context, the relationship is identified as the key: for the sake of a meaningful relationship, many young people follow their reference adult and turn to them in moments of need.

B.1.6. Identity crisis, the role of the school and the figure of the teacher

Consequently, two related questions were raised:

- what is the role of the school today?
- what kind of teacher is needed?
- There is a widespread expectation that the school should be a separate, 'clean' place, protected from the 'worse world', in which to start a path distinct from external reality. However, the people who make up the school come from the world, and the world inevitably enters through them.
- As regards the figure of the teacher, it is stressed that, when speaking of adult fragility, the central issue is the contradiction of a 'dissociated' society: young people are asked to embody behaviour that adults themselves do not practise outside school.
- In this context, it is considered inappropriate to keep telling the new generations that 'their intelligence has not developed', when in reality they are adapting to a profoundly changed social context. Looking at them as if they were 'out of their minds' means failing to grasp the meaning of the way they function.

B.1.7. New parent-child dynamics and the role of mothers

The answer then explored the transformations in relationships between parents and children. It was observed that mothers will continue to accompany their children even at university, and that if the school reads this only as a sign of 'mummy's boys', it misdiagnoses the situation: often it is the children who take on their mothers' fragilities and support their mothers, rather than the other way round.

Mothers are described as 'unbeatable' figures in their children's eyes, capable of taking on adult fragilities from the very beginning. This leads to a very strong bond, to be interpreted not only in terms of overprotection, but as a new relational context characterised by mutual needs.

These elements are read as signs of a transition to a 'post-patriarchy': we are no longer only in the age of the absent father, but in a new bond that defines the relationship between young people and adults differently.

B.1.8. New forms of distress at school and identity breakdowns

The great increase in requests for help from young people who 'feel bad at school' must also be considered: intelligent, capable students who no longer want to attend. In some cases they are diagnosed with a mood disorder; a different reading is proposed, however, according to which refusing school may represent an attempt not to fall ill, by avoiding a context experienced as excessively dissonant.

An increasingly frequent phenomenon is described: students who do very well at school and break down in their first year at university. This is no longer just a matter of choosing the wrong course, but of an identity breakdown. Never having given voice to the authentic parts of themselves, these young people struggle to find a place in the social context.

It is observed that, in some cases, unease at school can be read as a 'politically favourable' sign compared with forms of over-adaptation that explode later, in early adulthood. Over the last ten years there has been an increase in requests to public services, in suicides among university students and in various manifestations of distress: when contact with oneself and with others is missing, the emptiness becomes progressively invasive and paralysing.

B.2. *A new humanism, multidisciplinarity and the centrality of relationship*

- The theme of the 'new humanism' is introduced. It is observed that the great themes of humanity cannot be adequately addressed through the fragmentation of subjects. Examples given include peace and war, or ecology: there is no single subject that can contain them entirely, because these are questions that call for the convergence of different forms of knowledge and for multidisciplinary approaches.
- The importance of relationship is explicitly linked to the idea of a new humanism in the vision of Ignatian pedagogy: what remains indispensable and cannot be replaced by technology is the relational dimension. The need is put forward to 'consciously articulate relational risk': a renewed school should start from relationship and multidisciplinarity, interweaving the question of meaning (the horizon of significance) with the level of learning.
- From this perspective, the school cannot limit itself to transmitting isolated subject content, but must make room for pathways in which meaning, experience, relationships and knowledge converge on common themes that are genuinely relevant to young people's lives.

B.3. *Work as a formative experience, not only 'after school'*

- Another theme addressed concerns work. It is observed that, in the prevailing representation, work is thought of almost exclusively as something that happens 'after school', with the risk of pushing into the 'after' a series of aspects that could and should already have educational value in the present.
- It is stressed that 'getting one's hands dirty', putting oneself on the line and gaining concrete experience should be part of the formative journey, and not be relegated to outside the school or confined to a logic purely oriented towards 'what job will you find'. Work is described as an experience that helps people build themselves and that should be integrated into the journey of growth, not reduced to a mere end result.
- In this sense the original idea of *alternanza scuola-lavoro* (school-work alternation) is recalled, as distinct from the way it is implemented today: if work experience is conceived only as a tool for responding to social pressure on the issue of employment, its formative dimension is lost and the motivation to learn is weakened.

B.4. *Authentic relationship, guidance and early school leaving*

- Asked to clarify what is meant by an 'authentic' or 'motivating' relationship, the speaker recalled Rousseau's famous assertion that, to be a good teacher, one must know the person in front of one before knowing one's subject. The authentic relationship is described as one that starts from the question 'Who are you?' and decides what to do or not to do on the basis of how the student functions. It is noted that, despite theories about accompaniment and the specificity of the individual, everyday practice is dominated by messages such as 'I understand you, but this is how the system works', which ask the young person to adapt. When this adaptation succeeds, it often produces over-adaptation: the student brings home only the result, the mark.
- The current investment in guidance is also called into question: many cases of 're-orientation' are interpreted as the effect of contextual variables (class group, class council) rather than of any real unsuitability of the chosen course. Selection and failure produce early school leaving: young people from well-off families can move to 'easier' schools and still obtain a qualification, while others risk being left without a qualification and without prospects, at a very high social cost. It is reaffirmed that young people who drop out do not improve spontaneously: we do not live in a society in which, on leaving school, one naturally finds a trade. In this sense, the school is urged to question the meaning of marks, failure and selection.
- As regards relational skills, it is recalled that the present generations have grown up in a system characterised by the anticipation of experiences, continuous immersion in relationships and hypercommunication. An eleven-year-old today has, on average, spent time with more peers and had more relational experiences than previous generations did, even in the context

of internet use. It is observed that parents, by 'confiscating the body', have limited traditional forms of play and socialisation, but young people have rebuilt these processes online. Relational competence thus becomes the ability to pick up on the needs and functioning of others, combined, however, with a void with regard to one's own emotions: this can lead to acting out what one cannot name. When they meet an adult who genuinely asks 'Who are you?', anxiety tends to subside quickly.

B.5. *Educational priorities and sadness*

- As regards educational priorities for the coming years, the theme of the void in identity and of unrecognised emotions, sadness in particular, is identified as central. The speaker recalled that the number of young people who have thought about suicide is very high.
- A greater presence of psychologists in schools is called for, psychologists who do not merely recommend banning mobile phones, but who ask 'awkward questions' and work on deep emotions. 'Half an hour of family dialogue' on its own is not considered sufficient in a context in which, immediately afterwards, everyone goes back to life on social media.

B.6. *Teacher training, the rigidity of the system and untouchable nodes*

The speaker believes that teachers cannot be asked only for 'micro-changes' within a way of working that remains unchanged. One can offer them good training, but if in the end the teacher still has to fail, assess and select rigidly, it is not possible to build the kind of trusting educational relationship that one claims to want to promote. According to the speaker, as long as marks, failure and organisation by subject cannot be touched, talking about teacher training remains largely contradictory: teachers are asked to build solid relationships in a system whose pillars continue to pull in the opposite direction.

B.7. *The central question: an adult who listens*

- The discussion finally converges on one underlying question: are school and society able to offer young people an adult who really listens, who asks 'Who are you?' and who accompanies them without reducing the relationship to marks, failure and control?
- According to the perspective that emerged, when young people meet an adult of this kind (teacher, head teacher, coach, psychologist), they are willing to follow them over time, regardless of the subject taught or the specific role. In a context in which artificial intelligence, distance learning and social change are advancing rapidly, the wager for the future of the school and of education systems is identified precisely here: in the possibility of building authentic and multidisciplinary relationships, capable of recognising deep needs, giving words to sadness and emptiness, and not merely producing measures designed to reassure the adult world.

C. Practical suggestions and final conclusions

Diagnosis of the problem

The reflection brings out that the distress of the new generations does not arise from technology alone, but from a fragile adult system that offloads onto the school its need to reassure itself rather than to listen to young people. In this context, the traditional response, more strictness, more content, more selection, is read as a 'misdiagnosis'.

- **Authentic relationship at the centre**

To really change the school, action is needed on three structural nodes: rigid organisation by subject, the centrality of marks, and the use of failure as a natural instrument of selection. Subjects, numbers and stickers orient study towards results rather than meaning, fuel early school leaving and inequalities, and no longer hold up in the face of complex themes that require multidisciplinary perspectives. At the centre is placed the authentic educational relationship: adults capable of asking 'Who are you?', of welcoming difficult emotions, and of starting from learning gaps and from questions, building pathways in which experience, meaning and knowledge are interwoven.

- **A line of experimentation**

A possible way forward is identified in the hypothesis of a radical experiment: a class entrusted to a group of teachers for five years, without books or traditional tools, with free use of artificial intelligence and mobile phones, to see whether students would not only reach the same levels of learning but would also be better equipped for life in the longer term. The idea is that of an in-person working group, in which the strong presence of teachers is placed at the service of the relationship and of the students' questions, consistently with a school that does not merely measure performance but supports real processes of growth.

MEETING 3

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A. Main themes emerging from the speaker's talk

A.1. *The context: what is happening to human learning?*

The talk focused on how artificial intelligence is changing, on the one hand, the needs, problems and new questions connected with learning and, on the other, creating the conditions for new approaches to learning.

The starting point is a pedagogical perspective that is not new. A particularly relevant reflection by Vygotsky from 1934 is recalled, concerning the relationship between the tools of learning, forms of thinking and the very meaning of learning. With the arrival of artificial intelligence, the question 'what is happening to human learning?' can no longer be avoided. The introduction, about three years ago, of AI tools available to everyone marked a moment of sharp discontinuity: not so much in the range of tools available as in the way of relating to knowledge. This discontinuity shows itself for several reasons:

- First, a new dialogic dimension emerges. For the first time it becomes possible to access structured knowledge through the most spontaneous form of relationship for human beings, namely dialogue. Moreover, this access takes place in one's own language, regardless of the language in which the original content was produced. This is no minor aspect of our relationship with knowledge: the original language of the artefact becomes separated from the language of the person using it. And not only that: access can also take place at a level of language suited to the skills the user actually possesses.
- Secondly, before generative AI, whenever an artefact containing knowledge had to be built (a book, a video, a song, etc.), the boundaries of the knowledge represented had to be defined precisely from the outset. A language, authors, a disciplinary or interdisciplinary perspective and a purpose (for example, writing a novel or a user manual) had to be identified. With the introduction of generative AI, by contrast, it becomes possible to build an artefact from a very large body of content, and the design choices that previously had to be made upstream are now made by the user in the course of the interaction.

A.2. *Bateson's levels of learning and the possible roles of AI*

Drawing on reflections developed with her working group, the speaker recalled Bateson's proposed articulation of learning processes. Bateson conceived of learning as an ecological process, characterised by a series of qualitative evolutionary steps.

This vision is particularly useful in the current context, since our relationship with knowledge has evolved in a clearly ecological direction. When a person faces a problem, the knowledge that can be mobilised to solve it is no longer only the knowledge internalised and assimilated through traditional educational processes, but also includes a network of knowledge distributed across the digital and physical world. Although these resources were also accessible before, today, thanks to artificial intelligence, they are infinitely more accessible and immediately activatable.

The talk continued with an analysis of the levels of learning proposed by Gregory Bateson.

- **Learning level 0: automatic habit.** This level is characterised by the repetition of established patterns. It is a dynamic not far removed from what happens in many school and university classrooms, owing to various factors, including pressures linked to the relationship between time and performance. In some contexts, part of learning, and in the worst cases most of it, is reduced to acquiring unprocessed and uncomprehended patterns that are repeated mechanically. One of the most frequent complaints, for example from lecturers at the Politecnico, is that if an examination reproduces exactly the exercises done in class the results are good, whereas the slightest variation is enough for performance to deteriorate markedly.

With regard to this kind of learning, generative AI tends to come in as a *dis-support*, that is, as a tool that can harm the learning process. Using AI in simple 'copy and paste' mode replaces the activity that the student should be carrying out, amounting to uncritical use.

- **Level 1: operational learning.** This level concerns the acquisition of knowledge, rules and models. It represents most of what is usually considered learning. Most educational objectives, in fact, consist in assimilating rules, methods, patterns and data.

At this level, AI can be particularly useful from the point of view of optimisation. It can help to make the traditional learning process more efficient through strategies of support and personalisation. If the scenario remains unchanged, with content, methods and objectives held constant, AI can be used as an accelerator or amplifier of teaching effectiveness, acting on personalisation processes.

- **Level 2: reflective learning.** This level corresponds to the metacognitive dimension. Learners reflect on rules, methods and their own way of learning. However, the reflective level described by Bateson goes beyond metacognition in the classical sense: it also includes reflection on how the methods themselves work. For example, one not only learns how to carry out an addition, but asks whether there are other ways or methods of doing it.

In this area, AI has so far been exploited far less than its potential allows. It can instead be extremely useful as a support for metacognitive reflection, both in reworking what has been learnt (how it was learnt, what difficulties were encountered, how to improve) and in prompting critical reflection on the tools themselves, placing them within a broader framework.

- **Level 3: systemic learning.** At this level the subject becomes aware of their own epistemic premises. They understand how a historian thinks, how a mathematician thinks, how scientific knowledge is built. In the specific case of knowledge learnt, one asks about its origin: where it emerged from, in what context it was defined and for what reasons.

In this dimension, a particularly high quality of results can be observed when AI, even in its most common forms, is prompted at the level of epistemic premises. AI can be used to develop epistemic awareness, acting as a cognitive mirror that shows human beings the shape of their own thinking. Learning thus arises from mirroring: not from knowing more, but from understanding how one thinks.

- **Level 4: metamorphosis.** Bateson hypothesised a fourth level, defined as the metamorphosis of the process of metamorphosis. This is the change in the rules by which epistemic premises are modified. At this level, according to Bateson, the only possible response would be an exit from rationality, through forms such as madness or mystical ecstasy.

With the emergence of mature agentic AI, however, this level becomes practicable. In this scenario, human beings and AI evolve together: human beings learn through epistemic mirroring in the world created by agentic AI, recognise their own epistemic premises and modify them, while at the same time contributing to the evolution of AI itself.

In the current context, agentic AI makes it possible to give access to a very wide range of personal information and to delegate operational tasks to AI, such as reading emails or replying automatically on certain topics, on the basis of documents and criteria provided beforehand. The issue of agentic AI in training and education is therefore absolutely crucial. Since it is a technology that generates efficiency in production processes and reduces the need for human intervention, the chances that it will become pervasive are quite high. In a context in which agentic AI were widespread in knowledge, the professions and citizenship processes, it becomes inevitable to ask what becomes of the learning process. We would enter, to use Bateson's words, into the discussion of the very processes of metamorphosis. The working group tried to formulate an optimistic answer, oriented towards the search for solutions that are beneficial for the world.

One answer often proposed is that of the 'human in the loop', to be involved at crucial moments of decision-making. This solution, however, is considered partly illusory: experience shows that, after a short period of using agentic AI tools that require continual authorisation, people tend progressively to delegate. Put simply, they let the machine get on with it. At the same time, the possibility of granting AI legal personality is being discussed in various contexts, by analogy with limited liability companies, with dedicated funds to cover any damage. This would also imply the attribution of liability. These are reflections that refer to a time horizon of about ten years, not to a distant future.

The question therefore arises of the role of human beings in a context of integrated agentic and robotic AI. The answer sketched by the working group is that human beings would have a cultural

role. It goes beyond the 'human in the loop' approach to that of the 'human as cultural agent'. The human being becomes the subject who, observing the world as acted upon by automated systems, states that a given outcome does not match their own cultural vision and values, and therefore intervenes to steer the functioning of AI in a more culturally situated way.

One example cited is that of Amazon, where an automated CV screening system tended to favour white male profiles with similar characteristics. The process was subsequently corrected, since it was not culturally appropriate to the social context concerned.

This aspect is particularly relevant from an educational point of view, since it suggests that, in the medium term, it will become increasingly important to master the dimension of values, to be able to read critically how values take concrete form in the world, and to compare this with one's own system of values and vision. AI tools, in fact, work like 'time machines', relying on data from the past that are inevitably less up to date than the context in which the action takes place. In this sense, the role of the human being as custodian of values is likely to become much more significant than the role of custodian of knowledge, skills and techniques.

A.3. *Against this background, what is the current situation?*

In the light of what has been discussed, we find ourselves in a context in which the knowledge that human beings can actually use to act on the world no longer coincides with internal knowledge, understood as biologically embodied knowledge. In fact, this coincidence had already ceased with the introduction of books; today, however, the gap is even more marked. The critical point is that responding to this situation by claiming that internal knowledge is no longer needed is a naive position. Although it is not the only relevant form of knowledge, internal knowledge remains essential, since it makes it possible to turn activatable external knowledge into living knowledge for the subject, that is, into a capacity for action (agency) on the world.

The response that the education system has developed so far has been partly reassuring: it has been argued that the knowledge needed to live and act in the world remains essentially the same as ever, based on basic elements such as logarithms, the alphabet and similar skills. It is observed, however, that while this knowledge is certainly useful, it is not sufficient. Many missing dimensions emerge that are not adequately taken into account.

The question therefore arises of how to build a new model of internal knowledge that enables individuals to live and act within processes and worlds made up of socio-technical networks. In these contexts, human beings will still be involved, at least for a certain period, in operational processes, but to a progressively decreasing extent.

A.4. *Work: a driver of education?*

The talk added a further element for reflection, focusing on the role of work as the traditional driver of educational pathways and asking whether it still holds in the current and future context.

Historically, in the history of humanity, the idea that knowledge was closely connected with work concerned above all the lower social classes. For the aristocratic classes, knowledge was not aimed at work, but rather at the construction of the self. For the working class, by contrast, the connection between knowledge and work has always been central. The question is therefore raised whether it is still advisable, in the current historical context, to continue regarding this connection as automatic for the people being educated today.

The question is also raised of the future centrality of work in the construction of personal identity. Should working hours be significantly reduced, would the smaller share of time taken up by work in the structure of individual life still be able to perform the identity-structuring function it has had until now? In this regard, it is observed that the younger generations already tend to defend their time outside work very strongly, attributing considerable value to it for personal reasons. If work were to become progressively slighter in quantitative terms, in terms of hours devoted to it, its role as the main goal of educational pathways would be called into question and potentially at risk.

A.5. *Developing the cognitive self*

The importance of designing education as a process of building the individual is stressed, an approach that underlies many educational visions and can be summed up in the idea of 'helping someone to become a person'. This dimension of 'becoming a person' is destined to become infinitely more important than in the past.

The reason for this growing centrality lies in the acceleration of crises, which tend to overlap and amplify one another. In this context, the most precious asset of an educated person may lie not only in knowledge, skills and technical competences, but rather in having built an adaptive and reflective cognitive self, able to grasp the link between knowledge and agency in the world. It is observed that this awareness seems increasingly elusive. Recognising that possessing knowledge amplifies and sustains the individual's capacity for action, at both personal and collective level, seems to have become a competence in itself, one that needs to be taught explicitly.

Alongside this dimension is the importance of developing the capacity to learn independently and freely. From this perspective, a possible convergence emerges on the idea that today it is necessary to form the cognitive self, understood as building a personal orientation that enables each individual to go through and manage transitions and continual crises, at both macro and micro level.

A.6. *The central role of AI in building the cognitive self*

The question is raised of the relationship between artificial intelligence and the question of the meaning of learning, a question that is becoming increasingly problematic in the current context. AI is in fact one of the causes that help to call into question why we should learn at this point in history.

The line of reflection developed by the working group concerns in particular the way in which AI can support the complex task of knowing and developing the cognitive self. Attention focuses on the

possibility of using AI as an instrument of reflexivity. In this regard, a number of considerations are put forward. AI can support metacognitive processes, help to map individual cognitive development and help to recognise what is learnt and the ways in which it is learnt. It can also widen the possibilities for comparing different perspectives, alternative simulations and different arguments. This requires a different way of thinking about the role of AI in learning processes: not only as a support for the usual processes already built into educational practice, but as a catalyst for achieving a particularly complex and increasingly essential goal, namely the construction of the cognitive self.

A further point of interest is highlighted: there is a sense that these goals can be pursued without inventing new technological tools. The technologies currently available are already sufficient. What emerges strongly, however, is the theme of design. It is necessary to reflect carefully on the directions to give to learning processes, to experiment, to evaluate the outcomes and to make any adjustments. Traditionally, attention has focused largely on what Bateson defines as level 1 of learning. This approach can continue to be pursued. At the same time, the possibility opens up of exploring a different horizon, in which teachers are not left alone, but can be significantly supported by tools able to accompany and sustain these processes.

B. Discussion: main themes emerging

The human being as custodian of values: which set of values?

In the course of the discussion a general question was raised, particularly relevant to the context of the Istituto Leone XIII, taking up a passage from the speaker's talk on the role of the human being as custodian of values. The question concerned precisely the identification of the set of values of which human beings should be custodians. It was observed that this formulation opens up a far from trivial problem, since the values invoked can be very different and even far apart from one another, even within the same society.

The socio-technical network as a key to reading the contemporary context

In the course of the discussion a request was made for clarification of the concept of the socio-technical network, used to describe the context in which we live today, asking for a clearer explanation of what is meant by this expression and what image it evokes.

It was explained that the term originated in systems theory and that, in practical terms, it refers to the set of people, technologies, rules and practices that, intertwined with one another, determine whether an institution or organisation works or fails. From this perspective, technical and material actors are not considered entirely subservient to the human actor, but as agents that react to human action. This is precisely why the emphasis is placed on the dimension of the socio-technical network: when the work of a group of people becomes inextricably intertwined with the use of artificial intelligence, the definition of goals and processes, including in relation to value requirements, cannot concentrate on a single component, but must necessarily hold together all the dimensions involved.

People, technology and organisational rules must be observed and monitored together for the system to work. As an example, the case was recalled of the centre directed by the speaker, where AI is used for revising and translating teaching materials. This use has opened up new possibilities, but it has also had a feedback effect on the whole organisational process and on its rules. For this practice to be possible, the videos must be made in particular ways, which calls for specific training for the people involved. At the same time, the issue of rules of institutional integrity arose, for example how to make it clear that an individual does not master numerous languages, but that the material has been produced with the support of AI. The example shows the need for a perspective that considers the three dimensions and their interactions simultaneously.

When to introduce technology into educational processes

In the course of the discussion a central question was raised concerning when and how technology should be introduced into educational pathways, in particular in relation to the construction of the self and the personal orientation of students. The question starts from the idea that education should help each individual to build their own framework of meaning for reading reality, and asks whether, in the early stages of development, early exposure to technology might hinder this process, making its maturation more difficult.

In response, a general criterion was proposed: whenever the use of AI makes it possible to activate learners cognitively more than would happen without it, an advantage is generated; conversely, when this does not happen, introducing the technology is a disadvantage. In support of this position, a practical example was given of design students engaged in inventing services in a non-assessed context: in the first trial, the use of AI led to more interesting design results, but with a reduced impact on learning; in a second phase, by contrast, manual work was combined with interaction with artificial intelligence tools that simulated, for example, the role of a critical and aggressive journalist. In this case, the dialogic exchange with AI significantly activated learning processes, proving very useful even without formal assessment. As regards the age of exposure to technology, especially in the early stages of development, the speaker expressed a strong question mark, linked also to the difficulty of controlling exposure to technology outside school hours. From this perspective, it was suggested that the issue could be tackled educationally from the earliest years, starting pathways of knowledge, responsible use and development of the cognitive self within a socio-technical context, and helping children to understand the difference between machine and human. It was observed that, although machines are able to replicate forms of empathy, what characterises human interaction is reciprocity in freedom. It follows that explaining from an early age the substantial difference between interacting with machines and interacting with human beings appears to be an important educational objective.

The question of integrating machines into the early years of school nevertheless remains open: there are potentially interesting ways of using them even at primary school, but the problem has not

been solved. Since it seems difficult, if not impossible, to prevent children from encountering technology altogether, the issue inevitably shifts to education. Alongside this, however, there is the question of protection: it cannot be taken for granted that education in this direction will be effective, since useful and understandable tools can be undermined by access to other content, calling educational aims into question from the point of view of safeguarding.

The difficulties of adopting AI and the shift from tool to sociocultural constructor

In the course of the discussion the theme of the adoption of artificial intelligence clearly emerged, in particular the difficulty of adopting it in a purposeful and conscious way within educational contexts. It was pointed out that today's teachers have had no opportunity, either in their own training or in their experience of educational interaction across the school cycles, to develop adequate knowledge of these tools. This lack sometimes results in distorted approaches, as in the case cited of a primary school head teacher who showed pupils a badly formulated prompt in order to demonstrate that AI 'gets things wrong' and therefore should not be used. It was observed that this kind of approach is particularly problematic today, since AI already makes far fewer mistakes than three or four years ago and this margin of error is set to shrink further.

In this regard, a reflection was recalled by an Italian author who has studied major processes of innovation, according to which we always use technologies that are worse than those we will use tomorrow; a statement that is particularly apt in the case of AI, since it is a technology that evolves within weeks. In this scenario, thinking in terms of rigid five- or ten-year programmes, as happened with other technologies, seems impracticable: it is possible to set a direction, but not to fix a stable path.

Building on what the speaker had said, it was stressed that the crucial step lies in moving from the idea of AI as a mere tool to that of a sociocultural constructor. The inadequacy of the term 'tool' for describing generative AI was highlighted, since it continues to be thought of as a traditional machine, whereas in reality it introduces a profound discontinuity in our relationship with knowledge. If previously the book and the teacher were the main repositories of knowledge, and the teacher the only form of interactive knowledge, today it becomes possible to access knowledge that is interactive in itself. Models such as GPT are accessible to very different audiences in terms of culture, approach and ability, including people with different disabilities or impairments, contributing to a wider democratisation of access to knowledge than in the past. Hence the interest in an approach that regards AI not solely as a tool, but as a form of dialogue with knowledge, detached from the language and the original complexity of the authors. In this connection, examples linked to Foucault and Bateson were recalled, together with a quotation from Bergson according to which the eyes see only what the mind is prepared to comprehend. It was observed that, after all, this mechanism is not entirely new: in school textbooks too, the same historical or political event is presented several times at increasing levels of depth, although identical content is often repeated without taking account of

students' different preconceptions. In this sense, the theme of adaptability makes the paradox of Bateson's levels applied to the contemporary school system particularly topical, and rereading them in the light of AI was considered particularly illuminating.

A personal experience was also shared concerning the context of newsrooms, where the mere mention of artificial intelligence still generates strong resistance and mistrust. Nonetheless, the capacity of AI to operate at different levels was acknowledged, from the most automatic to advanced forms of metacognitive reflection.

Finally, the vision of the role of the human being in a future characterised by agentic AI was judged particularly significant: not as a mere efficient executor, but as a custodian of values, starting with empathy. It was stressed that being 'AI-driven' should not mean diminishing the human, as shown by the case of a large company which, while declaring itself 'AI-driven', laid off tens of thousands of people within a few months. Hence the conclusion that in teaching too it is necessary to separate the idea of introducing AI from the automatic idea of a problem: the critical issue is not AI in itself, but the use that is made of it.

Assessing the development of the cognitive self in a content-centred system

In the course of the discussion a question was asked about building the cognitive self, in particular with reference to the need, highlighted by the speaker, to shift the focus from acquiring purely work-related skills to building a solid self, capable of going through crises and maintaining its own agency. The question raised concerned the confrontation with an assessment system heavily based on content, and asked how it is possible to assess the development of the cognitive self within such a framework.

In response, it was observed that, alongside the space of content, there is also the space of methods, and that many aspects of building the cognitive self can be developed precisely through activities for learning traditional content, provided they are designed with this aim. If educational needs have been clearly identified and translated into formative objectives, pursuing them does not necessarily mean introducing new content, but depends to a significant extent on methods and, in some cases, on tools shaped to accompany those methods. In this respect, AI is particularly malleable compared with traditional teaching tools. It is therefore not a matter of adding specific courses on 'learning to learn', systems thinking or metacognition, but of integrating these dimensions while teaching even very simple content, such as a basic mathematical operation, through a conscious choice of methods. With AI, this integration can also become a question of tools, since artificial intelligence tools can be shaped to support these methodological approaches more effectively.

Some risks were, however, highlighted. The first concerns using AI in a purely efficiency-driven logic, for example by massively multiplying batteries of self-assessment quizzes in the belief that a quantitative increase automatically leads to faster learning. Although this approach may have its

uses, it was stressed that the potential of AI goes far beyond it. A second risk identified is that of individualism: given the way its dialogic dimension is structured, AI tends to encourage a highly individual personalisation. It was therefore emphasised that a healthy integration of AI into educational processes must maintain a social dimension.

More classrooms or not? The school as an irreplaceable place of socialisation, learning and agency

In the course of the discussion, a reflection emerged on rethinking spaces and classrooms in the perspective of a 'new Leone', asking whether it still makes sense to imagine a school that continues to have students come physically to school.

It was stressed that the fundamental value of the school lies in education for social life and in learning within a social context, as well as in its capacity to help people manage their relationship with the world. The school is recognised as a space in which it is possible to connect the dimension of knowledge with that of agency, an aspect that is critical even for adult students, who are often defenceless in the face of a world perceived as given, within which each person simply has to find their own 'little piece'. This capacity to find one's bearings, to give meaning to one's actions and to find one's place in the world is considered something that can be learnt in a structured way only within the school experience. In this context, a difficulty widespread among students was also mentioned, linked to a sense of humiliation in the face of the machine, when AI is able to produce results considered better than those achieved by the student, even after repeated attempts. This experience leads directly to the theme of learning to learn and to the competence of independent learning, which emerges as a central node in educational processes.

AI as methodological support and the centrality of teacher training

Another line of discussion concerned the role of AI as a tool supporting teaching methodology and the resulting need for targeted training of teaching staff. Taking up some points from the speaker's talk, it was observed that AI can support various aspects of the school experience, including tutoring and guidance, but also safety in the use of technologies, child protection and inclusion. From this perspective there emerges a wide space of possible and necessary work, which directly involves teachers and facilitators working in the school, especially in these areas. The discussion highlighted how indispensable specific training is in order to accompany these processes and make a conscious use of AI effective. In this sense, the underlying goal of schools appeared even clearer, identified as the construction of a new humanism in which the person is truly placed at the centre of the educational project.

The educational emergency of trust between the human, technology and knowledge

A further theme that emerged concerns what was described as a genuine educational emergency linked to trust. Education was described as what stands between the individual and the world and is founded on a relationship of trust. It was observed that many students use AI both on school days

and in their free time, and that in the latter context it is often seen as a friend, an adviser, a psychologist or a form of help. This dynamic, however, can generate a crisis in the relationship of trust between the person and the source of information, fuelling confusion between authentic relationship and simulation.

This context also includes the issue, considered culturally underestimated, of the accuracy of information. The distinction between relevant and irrelevant content is recognised as a fundamental educational node. Even before the question of whether the information provided by AI is correct or not (with regard to which specific skills can be developed, such as checking sources), a deeper problem was highlighted: a crisis of trust in the adult as a meaningful point of reference. A tension thus emerges between the trust placed in the technological object and trust in the human, with a progressive loss of centrality of the adult as a consistent and reliable figure on whom to rely.

The epistemological level and education in the positivity of the world

In the course of the discussion a reflection of an epistemological nature emerged, shifting attention from the question of whether or not to introduce a technology to the question of how to help students and teachers grasp its positivity. It was observed that the central issue is not the introduction of artificial intelligence in itself, but the way in which a positive and generative reading of technological reality is supported. In this regard, reference was made to the Jesuit educational tradition, and in particular to the 1986 document *The Characteristics of Jesuit Education*, which sets out an epistemological foundation for education based on the affirmation of the radical positivity of the world and of reality. From this perspective, education does not start from an original mistrust, but from the conviction that the world can be known and inhabited. The approach to AI proposed by the speaker was read as consistent with this vision: what matters is not so much deciding whether or not to introduce a specific technology, for example with very young students, as understanding how to help students and teachers recognise the positivity that can be found within that technology.

The real educational challenge is therefore identified as strengthening this capacity for a positive and purposeful reading of the world, in other contexts too, rather than focusing exclusively on the question of introducing or excluding technological tools.

Personalisation of learning and the risk of individualisation

Another theme addressed concerns the distinction between personalisation and individualisation of learning. The risk of confusing personalisation with a progressive loss of the ecological and social dimension of learning was stressed. It was observed that, if in the future an artificial intelligence were asked to represent learning visually, it would probably generate the image of a person alone in front of a computer, often an adolescent. The shared educational goal, however, is not to promote solitary learning, but to personalise pathways within a school that remains a context of relationships. The school is recognised as a place where one learns not only to be with others, but also to

read the world and to act upon it. This dimension is considered irreplaceable and impossible to replicate even through very efficient forms of individual education carried out exclusively at home. Personalisation, from this perspective, must therefore be conceived as a process that takes place within a social and shared context, and not as a mere individualisation of learning pathways.

Internal knowledge, dependence on AI and indispensable cognitive pillars

A further focus of discussion concerned the balance between internal and external knowledge and the question of the indispensable core of internal knowledge needed to avoid dependence on AI. The passage of the talk was taken up in which it was stated that internal knowledge no longer fully coincides with the knowledge needed to act in the world, since action increasingly relies on networks of distributed, external knowledge, such as those made available by artificial intelligence and the web. It was observed that this dynamic is not entirely new: with the advent of Google, the possibility of 'googling' information had already radically transformed our relationship with knowledge. The question raised was therefore what living knowledge is, the core of internal knowledge that must be preserved in students' biological memory too, so as to avoid a loss of the capacity for criticism and questioning. This reflection was placed within a context in which exposure to technology is by now endogenous and widespread, even outside school, as shown by the pervasive use of screens in children's daily lives.

Faced with this reality, the school's task becomes that of managing and reworking these dynamics within the formative journey. One possible answer identified concerns the construction of the cognitive self, in particular in its relational and systemic dimensions, recalling the model of the ten cognitive coins. It was stressed that the pandemic exposed a widespread lack of mastery of scientific knowledge and, more generally, a form of illiteracy described as 'existential', understood as the absence of the cognitive pillars that make the world thinkable. The experience of Covid showed particularly clearly how the difficulty of understanding the progressive and revisable nature of scientific knowledge produced social disorientation. Hence the emphasis on the need to go beyond merely recognising subject content, in order to develop the ability to handle the presuppositions of knowledge. Finally, some fundamental cognitive pillars (scientific, abstract, mathematical, philosophical, sociological and psychological) were mentioned as essential elements for making the world intelligible. The speaker expressed willingness to discuss these aspects in more depth on a later occasion, acknowledging that the reflection is still open and exploratory.

C. Essential bibliography and recommended resources

Bateson, Steps to an Ecology of Mind 1972

Vygotsky, Pensiero e linguaggio [Thought and Language] 1934

Susanna Sancassani and Daniela Casiraghi, Imparare con IA [Learning with AI] (link: http://www.pok.polimi.it)

MEETING 4

Luigi Ballerini, Author of fiction for young readers, physician and psychoanalyst

19 January 2026

A. Main themes emerging from the speaker's talk

A.1. *The ideal of perfection, performance and fragility in the face of mistakes*

The talk addressed the theme of '***the ideal of perfection***', taking as its reference the ***book Imperfetti*** [Imperfect], set in a dystopian society in which young people are produced in a laboratory: extremely beautiful, extremely healthy and extremely intelligent. In this world each of them is programmed to excel at something because they have been given the gene for it (for example for playing music, for jumping, for literature), and everything is determined in advance: they have the names of demigods, a barcode on their necks and even a programmed expiry date. Alongside them live the 'imperfect', those born of a woman, who do the most menial jobs and can be recognised because they have a navel, whereas the laboratory children do not, because they never needed to be attached to a mother. The message that the dystopia stages is summed up in the phrase: 'you are perfect, you are the best, you are happy'.

Within this framework, the speaker described the persistence of '***canons of perfection***' in adolescent experience, highlighting how these canons, initially observed mainly in girls in relation to body image, have gradually extended to boys too. It was made clear that, far from diminishing, adherence to an ideal of perfection has broadened, with growing pressure both on physical characteristics and, more generally, on performance and results.

The speaker linked this dynamic to the theme of '***guidance***', distinguishing between guidance on leaving middle school, considered on average more structured, and guidance on leaving secondary school, described as less effective and often inadequate. In this area the spread of a '***rhetoric of excellence***' was highlighted, sustained also by educational and communication practices that hold up mainly the most successful profiles as models. According to what was reported, this approach may motivate some students but may also discourage others, consolidating the idea that personal worth depends on reaching the highest levels. Thus '***the rhetoric of perfection becomes a rhetoric of performance***'. Many young people get stuck in this. This performance rhetoric corresponds to a low tolerance of frustration, particularly in dealing with mistakes. It was observed that, where there are perfectionist and performance-driven expectations, the experience of getting something wrong can trigger impulsive and disproportionate reactions, attributable to the difficulty of bearing and processing the frustration of failure (for example, a boy who misses a penalty in a five-a-side match goes into the changing room and smashes his locker with a punch and a kick; asked 'why?', he replies that 'he just snapped').

A.2. *The freedom of the subject in the digital dimension: the risk of living in a 'bubble' and the weakening of debate*

The talk explored the relationship between the digital environment and the construction of reality, recalling the book ***Mira sa tutto*** [Mira Knows Everything], which centres on the processes of control, profiling and manipulation connected with devices and platforms. From this perspective, attention was drawn to the fact that, in online experience, it becomes crucial to understand what is true and what is not and to find a criterion for finding one's bearings, since what I am led to believe may prevail over what is actually real.

On this basis the question of the '***freedom of the subject in a hyperconnected context***' was addressed. It was pointed out that in apps and on social media freedom is often exercised within a set of possibilities selected and proposed from outside, by the algorithm, according to recommendation logics built on preferences already expressed. This mechanism was described as functional and convenient, but at the same time capable of affecting the ways in which people and content are encountered, with effects observable in both young people and adults.

The ***risk of living inside an informational and relational 'bubble'*** was then illustrated, in which encounters with those who are different are reduced and people tend to surround themselves with positions similar to their own. In this context, the possibility of actively selecting or excluding those who think differently was mentioned, building a space of mutual confirmation that can make engagement with dissonant points of view rarer. It was stressed that, while this selection is possible online, in everyday reality the need to come to terms with diversity remains.

A further element highlighted, as a consequence, concerns the '***capacity to give an account of what one believes***'. It was observed that, if one lives mainly in homogeneous environments, the practice of debate diminishes and the capacity to argue one's positions before those who hold different ideas is weakened. In debate, in fact, it becomes necessary to give reasons for one's convictions and to listen to the arguments of others, with the possibility of broadening or changing one's perspective.

Finally, these dynamics were linked to the experience of the pandemic. It was reported that, when schools reopened, not all students returned easily to in-person activities; some had difficulty resuming ordinary participation. This was interpreted partly in the light of the fact that during Covid some young people lived in a selective relational bubble (for example WhatsApp groups with friends), whereas the class in person is a more complex and demanding context, in which positive, neutral and conflictual relationships coexist.

A.3. *Dystopia, the complexity of reality and the narrative framework of 'Alla seconda umanità' [To the Second Humanity]*

The talk recalled the book *Alla seconda umanità* [To the Second Humanity]. The title *Alla seconda umanità* was explained by the idea that the 'first humanity' went badly. In the dystopian framework

proposed, the second humanity represents a further step in an imagined future in which only machines remain. This narrative framework was presented as a tool for representing the complexity of reality and for supporting, in the form of critical imagination, a line of reasoning about contemporary transformations. In particular, the reference to dystopia and to the idea of a 'second humanity' was used as the conceptual basis for introducing a reflection on artificial intelligence and its possible implications.

A.4. *Neuroscience, the vision of the human being and the risk of functionalist reduction: the contribution of Miguel Benasayag and the implications for the school*

The speaker proposed a reflection on the relationship between '***neuroscience***', the conception of the human being and the interpretation of youth behaviour. While recognising the value of neuroscience, he expressed concern about the risk that, if taken as the sole reference point, it might end up dictating a vision of the human being reduced to the neurophysiological dimension alone, neglecting the dimension of experience and of thought.

In this context, the speaker recalled his exchanges with '***Miguel Benasayag***', a psychoanalyst engaged in studying what happens to the mind not only from a neurophysiological point of view but also in relation to '***thought***'. From the dialogue with Benasayag a reversal of perspective emerged: the main risk is not that machines will become like human beings, but that human beings will tend to become like machines. From this perspective, it was stated that artificial intelligence is changing the very idea of the human being, with the consequence that the person risks being interpreted as '***reduced to functions, performance and processes***'. It was also stressed that ChatGPT has radicalised this approach, encouraging the idea that the human being can be likened to a system that processes data and learns.

The reflection was brought back to the school context through the hypothesis that the school may implicitly adopt a model in which students are treated as '***learning machines***', interpreted as subjects who receive input (lessons), process data (study) and produce output (tests, marks, measurable competences), with the risk of a '***reduction of personal complexity***' to performance indicators. In support of this approach, a recent book by Benasayag was mentioned by title, considered particularly significant: ***'ChatGPT non pensa, il cervello neppure'*** [ChatGPT does not think, and neither does the brain]. Its thesis was reported, according to which the brain does not produce thoughts mechanically, like an organ secreting a product; if it were the brain, understood in a reductive sense, that 'thinks', then a machine could surpass it. The perspective, therefore, is not that of a brain to be 'made to work', but of a '***thinking body***'. This idea was linked to the Freudian reference to psychosomatic unity and to the affirmation of the centrality of the bodily self. From this an implication considered decisive for the school was drawn: students are not brains to be programmed or made to work, but thinking bodies. Learning takes place through living experiences and relationships with other thinking bodies.

A.5. *Affective learning; the dematerialisation of relationships and the loss of the link between work and result*

Emphasis was placed on '***affective learning***', understood as learning that brings the whole person back to the centre, integrating the affective, ethical and relational dimension with the cognitive one. It therefore does not focus only on building competences but contributes to the '***formation of persons***'. The need was also recalled to distinguish between the accumulation of information and experience, highlighting that the school should not limit itself to transmitting content, but should offer and generate experiences that form and transform the person.

Within this reflection, the idea was put forward of a return to a new materialism, prompted by the observation that the dimension of the body is increasingly being erased. It was stated that young people tend to live in a '***dematerialised reality***', and that this dynamic also affects interpersonal relationships. The growing disembodiment of relationships was pointed out in particular, accompanied by a double track of language, whereby people write things that they then do not stand by in face-to-face relationships. In this context, the idealisation that occurs on dating apps was mentioned, together with the gap that opens up when one meets the other in the concreteness of a real encounter. It was observed that some secondary school students are beginning to use dating apps, interpreted as a response to the perception of having few opportunities, or few safe opportunities, to build relationships in everyday life. It was pointed out that, through the app, the encounter seems safer because a reciprocity is presumed to be already established (both want to meet), while the work of understanding, fostering and encouraging the encounter is reduced or avoided.

These elements were linked to a broader problem, described as the loss of the '***link between work and result***'. It was pointed out that some young people want to reach goals without taking on the work needed to create the conditions in which those goals can be achieved, with examples relating to sporting, relational and academic ambitions. In this context, confusion between '***condition and constraint***' was also noted: the work required to reach a desired result is perceived not as a condition linked to a chosen goal, but as an imposed constraint, to the point of being experienced as a violation of freedom.

A.6. *The link between act and consequence, the function of judgement and the relationship between emotions and thought*

A problem concerning the '***link between act and consequence***' was highlighted. It is as if there were a short circuit that tends to prevent passing through judgement before action, with repercussions on the capacity to evaluate and modulate behaviour.

In this context, a reflection was developed on emotions and their relationship with thought. The speaker mentioned a book on emotions due out in March, written together with his daughter Anna, a child and adolescent psychotherapist. On the subject of '***emotions***', a critical position was expressed: in today's outlook, emotions are often placed in the foreground at the expense of '***thought***', whereas

for human beings primacy belongs to thought, and emotions must be understood, not taken as the sole guide to action. In support of this approach, a formative sequence was described, presented as the structure of the book, which aims to reintroduce the reflective step between impulse and behaviour:

- I sense, understood as taking in through the senses
- I feel, understood as what is stirred within us
- I think
- I act or do not act

It was stressed that the decisive element is the 'I think' step, since its absence leads to the short circuit between stimulus and action. Even a minimal gesture can trigger an immediate and disproportionate reaction because the moment of judgement is missing. Finally, the school's responsibility was recalled in supporting the construction of this step, helping students to develop the '***capacity for judgement***' before action.

A.7. *Delegation to algorithms: loss of functions, risks for teachers and students*

A reflection was developed on delegation to algorithms, recalling the contribution of Miguel Benasayag. His thesis was reported, according to which every function delegated to the machine tends to be gradually lost.

Within this framework, the delegation of school tasks to artificial intelligence tools was discussed, taking the summary as an example. It was made clear that the problem concerns not only the machine's physical production of the summary, but the loss of the set of cognitive operations that the task activates: reading and understanding the whole, identifying the essential passages, selecting the relevant content, building a coherent sequence. The repeated delegation of the task was therefore associated with the risk of weakening, and possibly losing altogether, the skills involved in the process itself. The main risks associated with delegation were then presented, distinguishing between teachers and students. For teachers, three main risks were identified:

- **Technical delegation that becomes delegation of decision-making:** the use of digital tools (electronic register, platforms, online tests) can lead to a slide whereby the algorithm determines what is relevant in learning, what to measure and by what criteria to classify results.
- **The shift of assessment from the person to the data:** the use of dashboards, scores, levels and charts can encourage greater trust in numbers than in the professional gaze on the person; the pressure towards assessment criteria perceived as objective was also mentioned, with reference to families' requests for marking grids.
- **Standardised lesson planning and delegation of ethical responsibility:** the teacher risks turning from a craftsman of relationships into an executor of workflows, with increasingly uniform

lessons; moreover, the machine can become the screen that justifies decisions and assessments, weakening the ethical responsibility of the teacher's judgement. It was observed that these drifts may initially be welcomed by some families.

For students, three main risks were identified:

- **Delegation of cognitive effort:** the tendency to have the machine carry out demanding tasks entails giving up the struggle with the text, with the problem and with error, that is, the effort regarded as an integral part of learning.
- **Identity as an algorithmic profile:** the risk increases that students perceive themselves as a set of data or labels, oversimplifying the complexity of the subject; the example was given of self-definitions based solely on diagnoses or categories.
- **The disappearance of useless time:** the algorithm tends to propose the quickest route, reducing dead time, whereas formation requires unproductive time, such as boredom, disorientation and mistakes, including through longer routes that make it possible to gain experience and not only to memorise content.

B. Discussion: main themes emerging

The future scenario of the school and the centrality of relationship (with reference to Asimov)

As an initial stimulus, Isaac Asimov's 1954 short story '*The Fun They Had*' *(Italian translation, 'Chissà come si divertivano'; link: https://www.unite.it/UniTE/Engine/RAServeFile.php/f/File_Prof/ESPOSITO_2230/ASIMOV,_Chissa_come_si_divertivano.pdf)* was proposed, presented as anticipating a scenario in which the teacher is replaced by a device or mechanism (a 'mechanical teacher') and the school is no longer a shared physical place. It was observed that a scenario of this kind might appeal to some parents because of the supposed impartiality and competence of the 'teacher', but that in such a configuration the '***dimension of relationship***', recalled as a decisive element of the school experience, would be lost.

Affective learning and recovering meaning in the educational experience

The speaker was asked to say more about affective learning, with particular attention to how to recover the meaning, passion and interest of the educational journey without dissipating them in technique and a logic of efficiency.

In his reply the speaker indicated that the question is central for him partly because of writing the book *Appuntamenti. Non agguati. Vivere bene la scuola, oggi* [Appointments, Not Ambushes: Living School Well Today], which arose from listening to young people: '***school***' is often described as a '***place of ambushes***', comparable to a jungle to be crossed while dodging threats and traps. From this

perspective he proposed that the school should become a '***place of appointments***', that is, a space in which a real encounter can take place, rather than a command or an order.

It was explained that without '***individual initiative***' on the part of the teacher there is no transmission of knowledge and, in the same way, without individual initiative on the part of the student there is no learning. To learn, in fact, means to take, to grasp and to make something one's own. From this perspective, it was stated that a school cannot be effective in transmitting knowledge and in helping people grow with sound judgement unless a partnership is established, understood as an encounter between parties who wish and intend to establish a relationship, from which something can arise that did not exist before. It was also pointed out that culture is an event, in the sense that it happens, and that everything originates from a convincing offer that comes from the teacher and which the person embraces because they glimpse its worth for themselves.

Continuing, it was made clear that it is not appropriate to take as a principle that the student should be at the centre, nor that the teacher should be at the centre. Instead it was indicated that '***at the centre is the teacher-learner pair***', understood as what happens during their '***relationship***', and it was specified that this dimension cannot be replaced. It was also observed that the intrusion of pure duty into school tends to produce resistance and rebelliousness which, when exacerbated, can spill over into inappropriate, bullying or violent behaviour and, at the same time, can draw the adult who does not grasp the dynamic into a spiral of tyranny that is hard to control. In this context a system of action and reaction could harmfully take the place of the more favourable regime of offer and acceptance.

Finally, it was made clear that affective learning therefore means learning that takes place within a relationship in which the teacher offers something and the student welcomes it because they find it interesting for themselves. This approach does not coincide with the mere transmission of content, but also includes an offer of meaning, that is, making explicit the value and usefulness for the person of what is being proposed.

Overcoming functionalism and the value of the present in the formative experience

During the discussion, the tendency to frame education according to a '***functionalist logic***' was taken up, in which what happens at school is justified mainly ***with a view to an 'afterwards'*** (doing well at middle school to get into secondary school, at secondary school to get into university, at university to get a job, and so on). In this regard the speaker recalled his novel *Ogni attimo è nostro* [Every Moment Is Ours], which arose partly in response to a news story about the death of a boy on the night of his school-leaving exams, as an occasion to question the meaning of an educational journey conceived exclusively as preparation for the future. In his view, study cannot be reduced to a mere instrumental stage: it makes sense because it is the piece of reality that, at that moment, the young person is asked to live and go through. From this perspective it was stressed that learning can

bring '***satisfaction***' and ***'an answer to oneself'*** '***in the present***', avoiding a dynamic of continual postponement that pushes ever further forward the idea that life really begins only at some later time.

The centrality of action and building a dystopian scenario of the school of the future

During the discussion it was proposed to bring action back to the centre and to train for action, building mechanisms in the school capable of making the relevance and meaning of what one does perceptible. The speaker who raised this explained that the proposal was formulated by going back to the basic pattern recalled as characteristic of Jesuit pedagogy: experience, reflection and action. It was explained that in recent years the emphasis has shifted particularly towards reflection, because the world is racing ahead and the risk is never really entering into things in a personal way. In this direction, it was observed that Jesuit educational centres have focused on reflection, also as a reflection of a need to humanise life.

Against this background, a book by Fr Johnny Go SJ was recalled, which argues that at this moment it is important to take action to heart. The reason given is that often, even with pupils in class, the idea is built up that what is studied now will be useful later: action is always placed afterwards and becomes what 'helps to understand' what one is doing, with the effect that what is done in the present seems to have no bearing on the student's life. For this reason it was proposed to pay particular attention to action today, training for action and creating mechanisms in the school that make people understand the relevance and meaning of what they do.

In this context the usefulness of dystopian scenarios as a methodology was also highlighted, insofar as they help to clarify what it is important not to lose. On this basis the speaker was asked to project a '***dystopian scenario***' of the school as an institution, with the observation that fear of uncertainty can block the capacity to imagine and that, after the pandemic, some contexts saw a reaction of returning to the accumulation of notions and to the intensification of assessment.

In reply, the speaker recalled an episode concerning a female student: the school had been asked for a complete exemption, allowing her to come and go freely, in order to facilitate a gradual return to social life. In that situation, the head teacher's question about how soon it would be possible to start assessing her was highlighted as significant, read as indicative of a shift of attention from the educational goal to measurement.

Starting from these elements, the dystopian scenario outlined took on the features of a '***school organised by levels***', in which children and young people would be identified and diagnosed early on the basis of their potential, with '***predefined pathways***' and differentiated access to opportunities. From this perspective, the possibility was raised of increasingly entrusting the definition of pathways to psychometric tests and, at the same time, the tendency to regard certain subjects deemed useless as dispensable, with the consequence that someone would decide what is useful or useless to human beings. It was also observed that classifications already exist today between university faculties considered 'strong' and 'weak'; the importance of making the criteria of such classifications explicit (pay

and ease of access to employment) so as to allow informed choices was stressed. Finally, a possible '***scientistic drift***' was hypothesised, with the marginalisation of the humanities, although it was also observed that, in working with artificial intelligence, skills typical of humanities pathways, such as the ability to ask appropriate questions, can prove valuable. In the same context, the possibility was discussed that, in a future scenario, teachers and the school as a physical place might be reduced or disappear, with reference to the growing spread of home education.

Giftedness and segregated classes

As the discussion continued, the question of gifted students was raised, pointing out that, from the point of view of some families, students of average ability or with greater difficulties may be perceived as slowing down the progress of the more advanced. The speaker who raised this linked the dynamic to the risk of a return of forms of segregated classes and, more generally, to a growing differentiation of pathways, with the effect of increasing social hierarchy and widening gaps.

In support of this concern, the speaker reported an example observed in a school: students with greater difficulties were concentrated in the same class section, resulting in internal segregation and a reduction in overall tolerance towards those who struggle, not least because this solution tends to reduce complaints from other parents. The speaker made clear that the scenario described should be countered by working on the value of the school as a physical place, as a space of encounter and relationship. In particular, the importance of the value of the other even when they are 'further behind' was reaffirmed, stressing that the issue concerns not only the school but a wider social dimension.

The school-family relationship, the educational pact and models of excellence

During the discussion the need for a '***clearer educational pact***' with families was highlighted, understood as an explicit clarification of what the school is founded on and of the idea of school that the institute intends to pursue. It was stressed that such clarification is likely to become increasingly necessary precisely because, in the scenario outlined, not all families are willing to support certain relational and educational aspects that the school considers essential; in this sense, it was suggested that the educational pact agreed at the outset will need to be formulated in a more defined and recognisable way, including for each individual school.

In this context the question was raised whether the school should aim at 'excellence' only for the best or should become an '***institution capable of caring also for those who are struggling***'. The speaker observed that in fact there are school contexts in which there is a tendency to select out early those who are not considered suitable, for example by deciding at the beginning of the year who will fail; he added that, if a school intends to be a school for the best, it would be more honest to say so explicitly, because this would make the model and the expectations of students and families transparent.

The logic of '***league tables***' applied to schools was also criticised, on the grounds that such tools build hierarchies without making clear the criteria on which they are based. In this sense, it was suggested, as practical advice for families, that at open days they should look not so much at the list of projects as at the '***language***' with which the school speaks about young people, paying attention to the words used (for example, the recurrence of terms linked to excellence and performance). Asking what a school actually does for students who are struggling was also indicated as a relevant criterion, since this distinguishes its educational approach beyond declarations of principle.

Criteria for the intentional use of AI in teaching: agency, the extended mind and a suggestive approach for teachers to rethinking tasks and assessment

Within the network of schools linked to education in the Ignatian tradition, the formative concept of men and women for others was recalled, understood as aimed at developing individuals who integrate the intellectual, spiritual and social dimensions. This reference was linked to the idea of mutual help, even in situations in which gifted students and other groups are set against each other, with the observation that if we '***grow together***', we can go further.

A first observation was then put forward concerning patterns of use of new technologies: AI, if used exclusively as a 'crutch', leads to improper use. Along the same lines, the theoretical framework of the extended mind was recalled, through the example of Inga and Otto: Inga achieves a goal by relying on her biological memory; Otto, who has Alzheimer's, uses a notebook to retrieve the information he needs in order to act. From this example the point was drawn that, in certain '***conditions of disability***', technology can act as a substrate that enables functioning (without being read merely as the loss of a function). A later development of this perspective (Supersizing the Mind) was then recalled, linked to the notions of agency and the need to maintain the complex cognitive process.

In this framework a school example was given: a student who uses ChatGPT to generate a text and copies and pastes it without reading it does not learn, search, compare or check; in that case the criteria for technological integration recalled (fluid integration, acceptance of information and tools, maintenance of agency) are not met. This point was linked to what the speaker had discussed: when a task is entirely delegated to the machine, agency is lost and thinking is abdicated. It was observed, however, that if young people are encouraged towards '***alternative formulations***', '***counter-argument***', '***gap analysis***' and '***comparison***' (including with a machine), the tool can enter the process while leaving the '***acting subject***' in place. Linked to this was a consideration about the home environment: today '***family members available for discussion***' are often lacking and not everyone can afford a tutor; for this reason, guided and purposeful use can become a form of support for the cognitive process, without replacing it.

From here the speaker was asked for his view on delegation, distinguishing between active delegation (or active extension) and passive delegation. The example was given of an inappropriately set task: asking a first-year liceo student to structure a program in Python, without their ever having

seen Python, makes the use of ChatGPT as a solution likely. This observation led to a reaffirmation of the need to '***formulate***' '***criteria***' for '***teachers***'**.** Three '***criterion questions***' were then proposed for teachers to ask themselves before integrating AI tools into their teaching:

- whether the activity set is '***instrumental to the formative objective***' and what that formative objective is (with the observation that, if the objective coincides with what is delegated, delegation defeats it);
- whether students are able to '***evaluate the output critically***' (linking this point to the theme of cognitive extension and technological dependence);
- whether there are '***alternative ways***' of exercising the same competence that require presence, bodiliness and action (recalling Benasayag's framework).

In conclusion, it was made clear that the aim is not to have students use less technology or more, but to promote intentional use: when writing a prompt, when engaging with a machine and when conversing with a machine, one needs to understand exactly what one is gaining and what one is losing. On the basis of this approach a question was asked, linked also to what had emerged about the disorientation of teaching staff: whether there was any idea of a ***'suggestive' approach for teachers***, given that disorientation often starts with adults and young people tend to follow. It was also added that, if the traditional teaching standard is maintained (frontal lesson, study, tests and the production of outputs assessed with a mark), there is a risk that tasks perceived as boring will be delegated to the machine, defeating learning; in this sense, the hypothesis was put forward of bringing discussion into the classroom rather than the artefact produced by the machine, and feedback on this direction was requested.

In response, the speaker stated that '***boredom, effort and slow time***' should not be eliminated, because they are part of learning and it does not follow that what speeds things up and removes effort is formative. He also recalled the need to enter into the dimension of boredom, as a dimension in which one learns to stay, observing that even if the machine can remove this effort at school, it will remain in life and will have to be faced in any case.

Educational passion, perfection and frustration: criteria of meaning, dialogue and the role of adults

It was suggested that an important distinguishing factor, also in relation to what had emerged about delegation and criteria for use, lies in '***educational passion***': in the capacity to sustain learning understood as affective, ethical and relational. This approach was likened to the concept of meaningful learning in Ignatian pedagogy, described as founded on an initial affective movement, that is, on an interest that arises because some content moves something perceived as important for the person.

Some points connected with the theme of *Imperfetti* were also taken up, with a reflection on the notion of perfection. The question was recalled of 'perfection with respect to what' and with respect to what position in the world, distinguishing between perfection as mere execution and perfection as

the capacity to take a personal stand in the face of what is considered unjust (drawing on the reflections of Gert Biesta). In parallel, the idea of imperfection was valued as attention to the '***originality of each person***', not reducible to reaching a standard and open to the unpredictability of what may emerge.

The theme of frustration was then highlighted, recalling the idea that young people are not sufficiently trained to bear and process it. This aspect was linked to the difficulty adults have in facing the expression of distress and in coping with the reactions that frustration produces. The importance of '***education for dialogue***' was also recalled, with the observation that debates often tend to take the form of conflictual and disparaging oppositions, whereas engaging with difference requires greater effort and a deeper exercise.

Finally, it was observed that some of the problems mentioned are not linked exclusively to the recent development of technologies, but can also be traced back to long-standing issues in the school. Particular mention was made of the tendency to regard students mainly as ***'walking brains'***, privileging certain forms of intelligence (logical-mathematical and linguistic-expressive) and struggling to integrate other dimensions (musical, spatial, kinaesthetic, intrapersonal and interpersonal).

In his reply the speaker reaffirmed that the ideal of perfection is abstract and, by definition, unattainable, thus condemning people to dissatisfaction. He gave the example of a final-year secondary school student in despair over a physical detail, interpreted as indicative of the mechanism whereby one fixates on a detail of oneself and makes it absolute.

On the theme of frustration, the centrality of educational work with adults was reaffirmed. It was observed that the main difficulty today concerns parents' capacity to stay within the '***frustration unleashed by setting a limit***', especially in the face of aggressive or disparaging reactions from their children. Reference was made to Recalcati, associated with the reversal whereby, while in the past children were afraid of displeasing their fathers, today fathers are afraid of displeasing their children and fear losing their love. It was stressed that one of the most important tasks with parents is to support the possibility of holding firm to that 'no', also bearing in mind that, over time, the judgement expressed by the child can be reconsidered and changed.

The humanity we are preparing, affective learning and the school as a community; dystopia and delegation as lenses for reading the present

A set of considerations was put forward starting from the themes addressed in the talk, with an initial focus on technology as a context that makes especially evident the tension between a universal humanity, understood as a constant dimension, and an embodied humanity, realised in the here and now. From this perspective, attention was drawn to the question of '***what kind of humanity we intend to prepare for the future***', stressing that there is no ready-made humanity and that human beings determine who they want to be through the embodiment they choose. It was observed that the question is not new, but is today amplified and impossible to evade.

The provocation concerning affective learning was then taken up, with reference to the relationship between teachers and students and, more generally, to the affective dimension of educational relationships, including that between children and parents. It was pointed out that, at a time when the affective dimension appears to be in crisis in various respects, the '***school***' might be called to think of itself not only for students but also '***for parents***', and therefore to ask itself what educational model it should propose and support as a community.

It was also proposed to regard '***delegation and dystopia***' as '***design tools***'. Dystopia was described as a mechanism that takes a reduction and makes it absolute, bringing to light the gaps that an education can leave. Within this framework, delegation could become a line of inquiry aimed not so much at defining what to prevent as at identifying what remains uncovered and how to intervene where artificial intelligence does not or cannot fill certain gaps, once again recalling, in this context, the centrality of affective learning.

Finally, a point was made about the student's here and now, criticising an education understood mainly as a projection into the future and onto what 'will be useful later'. It was suggested that attention be brought back to what students are living now, at their own stage of growth, recalling childhood as a time of play and of presence in the present and observing that, on becoming a student, a logic of postponement tends to set in (you study because later you will become something). The idea was put forward of designing a pathway that recognises that '***life is already in the present***' and not only in some 'afterwards', while retaining the element of preparation that characterises every phase of growth.

C. Practical suggestions and final conclusions

A distinction was proposed between what can and what cannot be delegated in school. The following were indicated as delegable:

- part of the organisation
- repetitive exercises and
- support functions.

By contrast, the following were said to be non-delegable:

- attention to the individual
- educational conflict
- evaluative judgement in its ethical dimension
- the construction of meaning and of the desire to know

since delegating them would lead to a loss of educational quality and to learning reduced to the sterile storage of content.

In conclusion, the key points for the school context, from the speaker's point of view, are:

- '***Putting affective learning at the centre***', understood as learning that takes place within a relationship: the teacher offers something and the student welcomes it because they recognise it as meaningful for themselves.
- '***Not reducing education to the mere transmission of content***', but also including an '***offer of meaning***', that is, making explicit the value and usefulness for the person of what is being proposed.
- '***Reaffirming the centrality of the teacher-learner relationship***' as a decisive and irreplaceable element of the educational process.
- '***Establishing a clearer educational pact with families***', based on an explicit statement of the idea of school that the institution intends to pursue.

D. Essential bibliography and recommended resources

- *Luigi Ballerini (2016), Imperfetti* [Imperfect]
- *Luigi Ballerini (2020), Mira sa tutto* [Mira Knows Everything]
- *Luigi Ballerini (2022), Alla seconda umanità* [To the Second Humanity]
- *Luigi Ballerini (2020), Appuntamenti. Non agguati*. Vivere bene la scuola, oggi [Appointments, Not Ambushes: Living School Well Today].
- *Luigi Ballerini (2018), Ogni attimo è nostro* [Every Moment Is Ours]
- Miguel Benasayag (2024), *ChatGPT non pensa, il cervello neppure* [ChatGPT does not think, and neither does the brain]
- Isaac Asimov, *The Fun They Had* (Italian translation, *Chissà come si divertivano*; link: *https://www.unite.it/UniTE/Engine/RAServeFile.php/f/File_Prof/ESPOSITO_2230/ASIMOV,_Chissa_come_si_divertivano.pdf*)

MEETING 5

Luigi Ballerini, Author of fiction for young readers, physician and psychoanalyst

2 February 2026

> *Note: this meeting was based on questions sent to the speaker in advance (see the Annex 'Questions' at the end of these minutes).*

A. Main themes emerging from the speaker's talk

A.1. *Educational performance anxiety and the role of the teacher*

The speaker sees in the combination of '***educational performance anxiety***', '***short-term measurement***' and '***the expectation of control***' a drift that ends up distorting the educational process, since this combination does not foster its development. He stresses that education, by its nature, points a direction and cannot be forcibly imposed. Although aware of this principle, teachers need to be constantly reminded that '***authentic educational outcomes are often delayed***', sometimes emerging only when the student has already moved to another class or finished school. In this context the concept of *furor sanandi* is recalled, understood as the attitude of 'I'll do it all myself, I'll sort out every situation', which goes hand in hand with a dimension of command and control. The speaker instead reaffirms a point he considers fundamental: students '***embrace the educational offer only if they recognise that it is worthwhile for them***'; imposed learning is not effective, because what enters the mind is what one chooses to take in.

A.1.1. The sources of teachers' professional satisfaction

The speaker stresses the importance of asking where '***teachers' professional satisfaction comes from***'. He points out that such satisfaction cannot depend solely on numerical results or on student performance: recognising other dimensions of educational work makes it possible to prevent quantitative assessment from becoming the only measure of meaning and success. Within this framework, the main sources of satisfaction identified are the work of '***preparation***', '***revision***' and '***deeper study***', together with the '***educational relationship***'.

A.1.2. When digital technology does not help the educational process

Digital technology becomes problematic when it '***digitises haste***' and reinforces the logic of immediate measurement. League tables, scores, performance and averages feed a toxic idea according to which everything should be '***always visible, measurable and immediately assessable***'. In these cases the educational relationship risks turning into '***surveillance***', as happens, for example, through the use of electronic registers and notifications designed to 'keep an eye on' students and processes. The result is an illusion: that digital technology is the automatic solution to the difficulties of teachers and students.

A.1.3. When digital technology supports learning

Digital technology can, on the other hand, be a valuable educational support under various conditions.

- *Shifting attention from the result to the process*

Technology is useful when it makes it possible to focus on the '***learning process***' rather than on the result alone. Using tools such as a student portfolio, which gathers successive tests and revisions, makes it possible to see that growth is not necessarily linear. This is useful both for teachers and for students, who can come to understand that not succeeding straight away is not a life sentence. In this regard the speaker recalls the widespread difficulty students experience with the demand for immediacy ('I don't understand why I don't understand straight away'), whereas study requires time and gradual progress.

- *Building a memory of the educational relationship*

Digital technology can also '***build a memory of the relationship***', giving value to qualitative notes and small steps forward: moments when the student opened up, attempts made, significant turning points. Qualitative assessment placed in perspective helps to bring out progression and to cut down to size the idea of the immediate result as the only criterion of worth.

- *Supporting shared thinking and collegiality*

Finally, digital technology can foster '***collegiality***' through spaces shared among teachers. In this way the work is to lift anxiety off the individual teacher: anxiety is not simply shared as an emotional state, but transformed into a '***common question***', becoming less tyrannical and more manageable within shared thinking.

A.2. *Active interaction with technology: moving beyond passive delegation and rejection*

On the possibility of helping students discover ways of interacting with technology other than passive delegation and rejection, the speaker points out that students are supported when technology is presented as a '***tool directed to a purpose***'. From this perspective, technology also becomes an '***object to be understood***' and therefore an object of study, and it can also create '***spaces for collaboration among students***'.

A.2.1. Rethinking homework: technology as necessary but not sufficient

The speaker recalls the need to rethink how homework is set, making clear that this is not simply a matter of 'changing the way homework is given' in a generic sense, but of setting activities in which technology is sometimes '***necessary***' but '***not sufficient***'.

In this approach technology is '***built into the task***': for example, students can be asked to search for sources, to work on them personally and then, where appropriate, to use technology to '***evaluate the output***' produced as well.

A.2.2. Technological literacy: reliability, sources and AI 'hallucinations'

The speaker proposes developing a genuine '***technological literacy***', pointing to the understanding of artificial intelligence 'hallucinations' as an area of work: why it makes a 'howler', where it finds a piece of information and how to spot a false result, whether obvious or less obvious. He stresses how crucial it is to go back to working with young people '***on the reliability of sources***', a central element also in tackling fake news. He adds that being able to recognise a reliable witness is a useful skill in everyday life: a person who does not deceive, who wants the good of the other and who is sincere.

A.3. *Parental control and its educational effects*

The speaker describes the question of '***control by parents***' as particularly important, observing that the present generation is probably the '***most controlled generation in history***', without this necessarily translating into more education or into genuine educational accompaniment. Control, in fact, coincides neither with educating nor with caring. He gives as examples certain practices linked to the use of mobile phones (such as the demand to be reachable at all times during school trips or activities), stressing that they respond mainly to parents' need to '***reduce their own anxiety***' by obtaining real-time information on their children's whereabouts and results. The speaker describes a possible dystopian future scenario featuring not 'bad' parents but parents who are '***more and more frightened***' and who exercise control 'out of love', which raises questions about the very meaning of that love.

A.4. *The problems of parental control*

- *From care to permanent guardianship: obstacles to autonomy*

Among the main problems of parental control, the speaker points to the risk that '***care turns into permanent guardianship***', preventing practice in autonomy and responsibility. He proposes a distinction between '***autonomy***' and '***independence***', making clear that education should aim at the former and not necessarily at the latter. Autonomy is described as the capacity of the person to say 'I', to judge, to exercise critical thinking, to evaluate and to weigh proposals against themselves. An autonomous person seeks; they do not need bosses, but companions, allies and partners. Independence, if severed from meaningful relationships, can instead degenerate into problematic forms. The speaker observes that today the word 'dependence' is automatically associated with something toxic, whereas there are also '***positive forms of dependence***', linked to relationships of care and trust. From this perspective, the idea is of a person who is autonomous but not independent, aware that the good is always a '***common good***'. Excessive control is therefore an obstacle on this path to autonomy.

- *School: responsibility without authority*

A second critical issue concerns the role of the school. The speaker describes a paradox whereby ***the family directs the young person's educational experience 'remotely'***, while the school remains

'***responsible for the outcomes***'. When problems arise, responsibility falls on the school, but the practical handling of situations remains in the hands of the family. This mechanism exposes the school to the risk of '***responsibility without authority***', in which the locus of judgement is external and educational direction is not genuinely shared.

- *The anxiety loop*

Using technology to control one's children gives rise to a '***loop of shared anxiety***': the parent feels anxious, technology offers means of control (messages, calls), and the young person senses the implicit demand to reassure the adult immediately. If the reply does not come at once, the parent's anxiety grows, and with it the control and hence the messages sent to the young person. The latter may react by replying in order to 'switch off the alarm', or by avoiding a reply or lying in order to manage the parents' anxiety. Either way, communication is compromised: this is '***apparent control***', which does not create a lasting relationship but only a temporary reduction in anxiety, which is bound to return.

- *Technology that hinders individuation and separation*

The speaker also points out that '***constant connection***' hinders the process of '***individuation and separation***', which is fundamental for growth. The absence of spaces that are truly one's own makes it hard to build a boundary between inside and outside and to become a subject. Practices such as '***constant geolocation***', whether declared or not, contribute to this continual exposure.

- *The risk of losing trust in other adults*

The speaker points to a further risk linked to parental control: the '***loss of trust in other adults***', fuelled by the idea that only the family is truly reliable and able to care. In the speaker's view, this approach can produce two opposite outcomes: on the one hand '***radical rebellion***', on the other '***passive adherence***' to a system in which the other is perceived as an enemy. In this sense he invites parents '***not to be jealous***' of their children's educational relationships and recalls the importance, in the course of growing up, of encountering '***other significant adults***', able to perform an educational role without replacing the family but widening the relational horizon. Excessive control risks preventing this openness and limiting young people's opportunity to build '***plural educational relationships***'.

A.5. *Control on the teachers' side: limits and educational problems*

The speaker addresses the theme of '***control exercised by teachers***', asking what does not work in certain school practices. He points out that control often focuses on '***performance***' rather than on '***learning***'. This risks producing students trained to 'game the system', able to remember, repeat or solve exercises, but not necessarily to integrate, transform, connect and internalise content. Control, the speaker observes, tends to measure the '***short term***', testing a single moment and reducing the complexity of learning to a number, the mark, without grasping the transformative process that underlies learning.

A.5.1. Education as convocation and the possibility of the new

The speaker recalls a concept developed together with the analyst Raffaella Colombo, defining ***education as 'convocation'***. From this perspective, educating does not coincide with commanding, with discipline understood as mere duty or with a morality reduced to obligation, but with the possibility that something '***favourable for oneself and for others***' may happen. Education as convocation implies joining in a shared piece of work, carried through to mutual satisfaction, and it is a condition for the new to emerge.

The new, the speaker stresses, is not something that can be programmed, but something that '***happens***'. In teaching, this means entering the classroom expecting the lesson to be not the mere repetition of content already known but an opportunity for something unforeseen to happen, generated by the encounter between what the teacher brings and what the students put into play. When a lesson works, he observes, it is not only the student who comes out of it enriched, but the teacher too, thanks to a cue, a remark or an unexpected connection. While recognising that this cannot happen in every single lesson, the speaker presents this expectation as a fundamental orientation. Within this framework, '***rules***' too make sense only if they serve this happening. Rules are necessary and school is rightly governed by them, but they must constantly be brought back to their purpose: the '***common good***' and the possibility of working and growing together. If they lose this reference, they risk being reduced to a purely dutiful and moralistic compliance.

A.5.2. The new at school and the mechanisms that prevent it from emerging

The speaker stresses that it is already significant that anyone should think that '***something new can happen at school***', since school is traditionally perceived as the place of repetition. He then asks what the 'enemies of the new' are and identifies a series of '***organisational mechanisms***' that prevent it from emerging.

- *Fragmented timetables*

Dividing the school experience into short units of time, marked by continual starting and stopping, carries the risk of shallow study and fragmented learning ('confetti learning'). The constant change of subject and teacher demands a continual effort of cognitive adjustment, and it is fair to ask how useful this really is.

- *Subject compartmentalisation*

A further obstacle is the compartmentalisation of subjects when a subject becomes a '***rigid identity***' ('I teach my subject'). The speaker gives the example of teachers who feel that activities not directly related to their own subject are none of their concern, seeing them as a waste of time compared with 'their own lesson', and who consequently close themselves off from cross-curricular experiences.

- *Classroom spaces*

The physical layout of classrooms is also identified as a critical factor: spaces seem designed to encourage immobility, frontal teaching and visual control rather than movement and independent work.

- *Syllabus overload and bureaucracy*

The speaker also highlights the problem of '***overloaded syllabuses***', which generates a constant sense of 'falling behind'. He questions whether it is really necessary to cover all the content exhaustively and in chronological order, stressing that syllabus anxiety is also fuelled by comparisons between classes and by external expectations. Added to this is a bureaucratic overload that further reduces the room for deeper study.

In the speaker's view, the obstacles to the emergence of the new are not only organisational and environmental but also '***mental***'. The new, he specifies, is not something the teacher 'brings', but something that '***happens***'. The problem therefore becomes how to create the conditions for the new to emerge in the lesson and in the class, without turning it in turn into an object of measurement or a new subject. Constantly measuring 'how much new happens' risks reproducing the very same dynamics of control.

A.5.3. The ethical dimension of assessment and the irreplaceability of the teacher

Finally, the speaker links these reflections to the theme of '***assessment***', asking what is really being assessed and recalling its '***ethical dimension***'. It is this dimension that makes the teacher irreplaceable: not because of a merely technical function, but because of the capacity to grasp the student's '***transformations***'. These transformations are not always immediately measurable, but they show themselves in the body, in behaviour, in posture, in the way of being in class and of relating to others. The teacher's sensitivity is what makes it possible to recognise these changes and to take them into account in assessment as well. From this perspective, the speaker states that '***the teacher's tense is the future perfect***': 'I shall have been a teacher if someone will have learnt, if someone will have been transformed with me'. Being a teacher is not a state but a happening that binds teachers to students, not as a judgement on oneself, but as a shared experience of transformation. He concludes by stressing the importance of recovering a '***circle of mutual satisfaction***': the student's learning gives the teacher back the satisfaction of their own work, a dynamic that is evident in the early years of school and that should be maintained, even as personal autonomy grows, throughout the whole educational journey.

A.6. *Performance, subjectivation and recognising originality*

The speaker links the theme of control to the question of '***subjectivation***'. He observes that educators often project onto students an image of how they 'ought to be', and asks whether the school really recognises the '***intrinsic value***' of each pupil or continues to value only certain forms of intelligence. While acknowledging that, at the level of declarations, the originality of every student is affirmed, the speaker stresses that in daily practice it is above all '***visible and measurable intelligences***'

that are rewarded, together with behaviour compatible with classroom management, self-control, conformity and speed. In this way performance tends to be valued more than transformation, and individual measurements are treated as isolated events rather than as part of a process. The result is a paradox: uniqueness is celebrated, but what is assessed is '***conformity to a model***'. Order takes on central importance, but the speaker poses a provocative question: if there is order in a barracks too, what then is the difference between a school and a barracks? The difference, he concludes, lies in the '***educational approach***', which cannot be reduced to command.

A.7. *What a 'good pupil' means and the value of transversal skills*

The speaker asks what the expression ***'good pupil'*** means, giving the example of a student who struggles with grammar (with a failing mark, say) but who, in a real-life context such as an outing with foreign peers, is able to explain the cultural features of the city effectively in English, demonstrating solid communicative and pragmatic skills. He links this reflection to the theme of '***non-cognitive skills***' (or transversal skills), pointing out that one of the main educational challenges is '***making transversal skills observable and assessable***'. He stresses that the primary meaning of the Italian *valutare* (to assess) is not to give a mark but '***to give value***', and therefore asks how such skills can be recognised and valued without reducing them to a numerical measurement.

A.7.1. Assessing transversal skills without turning them into subjects

The speaker makes clear that transversal skills cannot be turned into subjects in their own right, nor assessed with a specific mark (for example a 'mark in leadership' or a 'mark in problem solving'). They must instead be '***assessed within the subjects***', as skills applied to concrete situations. Returning to the example of the student involved in a language exchange, he stresses that what is assessed is not leadership in the abstract but the way the student handled the interaction: the quality of linguistic and cultural mediation, communicative effectiveness, pragmatic ability. In this way, what is transversal becomes observable and assessable within the subject. Starting from the question '***what are we assessing when we assess?***', the speaker proposes some practical hypotheses.

Integrating transversal skills into the subject mark

A first hypothesis consists in giving '***different weights***' to the various dimensions of assessment within the same subject. By way of example, in English the mark could be made up of:

- a share for grammar and vocabulary,
- a share for written and oral comprehension and production,
- a share for interaction and mediation.

This approach would make it possible to avoid two opposite risks: on the one hand, that the student who is 'good at playing the system' might make up for gaps in the subject without studying properly; on the other, that the student might be pinned down to purely rote learning. In this regard the

speaker recalls his own experience of assessing writing, stressing that its value lies in the ability to communicate something authentic and not in mere formal correctness.

A.8. *Reducing formative seriousness to the cognitive dimension*

The speaker addressed the theme of '***sport in the liceo scientifico sportivo***' as an example of how, in the Italian context, there is often a tendency to make something 'serious' by '***reducing it exclusively to the cognitive dimension***'. From this perspective, the liceo scientifico sportivo risks being perceived as serious *in spite of* sport, and not *because* sport is an integral part of the formative pathway. The speaker welcomes the question raised about what makes sport 'scientific' and stresses that the risk is to justify its presence through indirect references to disciplines such as biology, physiology, biomechanics or statistics. While recognising the importance of such connections, he states that they neither exhaust '***the formative value of sport***' nor constitute its core.

A.8.1. Overcoming cognitive reduction through the learning contract

To avoid an exclusive reduction to the cognitive, the speaker proposes '***revising the learning contract***', asking what cannot immediately be turned into notions. If assessment focuses solely on knowledge, every educational experience is forcibly brought back to the cognitive dimension. Sport, he stresses, is serious not because it is justified through theoretical explanations (for example about muscular levers) but '***because it is practised seriously***'. Its formative dignity derives not from being scientific in the strict sense but from the recognition of its intrinsic educational value.

A.8.2. Authentic tasks and recognition of sport as a subject

The speaker highlights the need to '***state explicitly the formative dignity of sport***' as such and, consequently, to assess it. This means designing '***authentic tasks***' consistent with the nature of the subject. By way of example, he mentions practices such as designing training microcycles, refereeing, video analysis of sporting events and group work.

A.8.3. The formative value of sport

The speaker concludes by stressing that sport is serious because it forms people '***capable of being in the world***' with others, within rules and limits, starting from their relationship with their own body. This capacity to inhabit one's own body consciously, and a space shared with other bodies, is a formative dimension that academic ability alone cannot guarantee, and which the school, in its traditional form, struggles to develop fully.

B. Discussion: main themes emerging

Formative assessment, artificial intelligence and the memory of processes

During the discussion, the question of '***formative assessment***' and '***transversal skills***', already addressed in the speaker's talk, was taken up again, with a further reflection on the use of '***artificial***

intelligence' to support assessment. In particular, it was pointed out that one of the current limitations lies in the difficulty teachers have in '***continuously recording and feeding back on students' progress***' through frequent and structured feedback.

In this sense, artificial intelligence was suggested as a tool for '***tracking the formative journey***', able to gather and keep a record of the different phases of learning over the course of the year. This function would be significant not only for teachers, as support for the work of observation and documentation, but also for the students themselves. It was stressed that adolescents, partly for developmental reasons, often find it hard to '***look back over their own journey across time***', remaining focused on the immediate present (on today's problems or successes) without managing to see the progress they have made.

From this perspective, AI could encourage a '***review of the process***', helping students to recognise intermediate milestones, changes and achievements, in a social context marked by a strong push towards haste and immediacy. Such a review would have considerable formative value, precisely because it supports a broader and more conscious perception of the time that learning takes.

The possibility was also highlighted of ***modelling a 'human' use of artificial intelligence***, guiding students step by step as they learn conscious practices, rather than leaving them to delegated or improper use. In this context a further dimension was also recalled: '***relationality as a professional competence of the teacher***'**.**

The speaker replied by strongly recalling the theme of '***school autonomy***', described as a little-used but potentially decisive tool for rethinking assessment, the organisation of time and the recognition of different experiences. Many of the structures perceived as rigid, he stated, could be rethought through more deliberate organisational choices.

He reaffirmed the centrality of '***the slow time of school***', distinct from the time of life outside school, and warned against attempts to speed it up to fit external models. The time of learning, he stressed, is necessarily gradual and progressive. The real challenge then becomes making this slow time '***not anachronistic***' but recognisable as a value.

The speaker warned against the risk of a naive ***'secularisation'*** of the school, which confuses innovation with the presence of technological tools. The quality of the educational experience, he stated, depends not on devices but on the relationship and on the teacher's competence.

In this sense technology can play a role in '***making growth visible***', helping students and teachers to recognise the transformations that have taken place over time, including through assessment that integrates quantitative and qualitative dimensions.

Technology, speed and the slow time of learning

A second observation problematised the relationship between '***technology and speed***', highlighting how technology is often culturally associated with acceleration. Taking this association to its extreme, an apparent tension emerges: if the depth and truth of the educational experience require slowness, technology and school risk appearing to be opposites. This extreme formulation was offered as a provocation to question the educational project more deeply.

The speaker made clear that the point is not to give up technology but '***to define its purpose***'. There are areas, particularly '***bureaucratic and administrative***' ones, in which speeding things up is not only legitimate but desirable. However, rather than speeding up, the point is to '***free up time***', above all for teachers, so that it can be reinvested in '***the time of the educational relationship***'. The central question therefore becomes: beyond speeding up processes, '***what do we really need technology for?***' The risk, he concluded, is that everything is pushed in the direction of acceleration without asking what must instead remain slow in order to be educational.

Assessment as valuing and the role of feedback

The discussion produced a reflection on '***assessment***' understood not only as measuring performance but as '***valuing the journey***'. An experience was described in which pieces of work that were initially very weak were met with feedback strongly focused on recognising what worked, leading over time to significant improvement. This approach shows how it is possible to distinguish the mark, which remains a formal datum, from the educational feedback that accompanies students and supports their growth.

The speaker endorsed this approach, specifying that it is effective only if grounded in a '***genuine and sincere regard***' and not in a communication strategy. Recognition of value must start from what is really there in the student's work. Correcting then means dealing with mistakes so that what is valid can emerge and become consolidated. In this sense assessment becomes an educational act that looks at the point reached and not only at what is missing.

Real competence and the durability of learning over time

A related theme concerns the gap between '***a high mark and real learning***'. It was observed that high marks do not necessarily guarantee that content has been internalised or will remain meaningful over time. In this sense, assessment has a profound effect on teaching practice and can steer it towards competences that are more embodied and geared to the real use of knowledge.

The speaker stressed the need for assessment that rewards what '***lasts over time***', helping students to connect content, to place it within a broader framework and to understand its meaning. Fragmentation by subject and by timetable risks producing learning that quickly fades, whereas the educational task should foster lasting connections and meanings.

Assessment dialogue and recognition of the person

Alongside the structure of the mark, the question of '***assessment dialogue***' was strongly raised: the possibility of giving students a detailed picture of their strengths, areas for improvement and future goals. This requires a gaze able to see the person as a whole, not only the performance.

The speaker took up this point, observing that telling a student 'I see you' does not mean exercising control but recognising their steps, including difficulties and moments of regression. Behind a drop in performance there may be complex personal experiences that make learning impossible at that moment. In such cases, the possibility of an adult asking an open, non-judgemental question ('what's going on?') becomes an integral part of educational action. This kind of dialogue requires time, space and a reorganisation of school work, but it is an essential condition for truly formative assessment.

The centrality of the student and the risk of over-adaptation

The debate produced a critical reflection on the risk that the school, in trying to respond to students' needs, might build an '***excessively adapted environment***' designed to prevent any discomfort or frustration. It was observed that the adult world is often anything but welcoming, and that experiences of difficulty, loneliness or conflict, if lived through, can have formative value.

The speaker acknowledged that the concern was well founded, but proposed a fundamental distinction: the educational environment must not be '***hostile***' but '***complex***'. Complexity implies the presence of conflict, effort and difficulty, without these being eliminated or neutralised. Hostility, on the other hand, risks crushing many students, who today, more than in the past, struggle to cope with excessively harsh settings.

Educational conflict, effort and discipline

Linked to this reflection is the question of '***conflict***' and effort as unavoidable elements of learning. It was stressed that practices which systematically defuse aggression and dissent can impoverish the educational experience, depriving students of the chance to test themselves against disagreement and limits.

The speaker made clear that cognitive effort and educational conflict cannot be eliminated and must be safeguarded. What makes the difference is the environment in which they are lived through. What is needed is a '***friendly gaze that cuts no corners***': a gaze that believes in the student's capacity to think, that does not shield them from difficulty but accompanies them in facing it. In this sense he warned against the risk of a 'snowplough teacher', who removes every obstacle to avoid discomfort but thereby deprives the student of an essential formative experience.

'The new that happens' and leaving room in educational processes

The discussion produced a reflection on ***'the new that happens'***, starting from an extracurricular project in which students were asked to devise a technology with high social impact. In that context, since no expected result had been defined, the adult chose to limit their intervention to setting '***rules of time and framework***', giving up close control over the individual stages of the work.

It was described how, at first, this choice generated confusion and unease, since the processes the students set in motion did not correspond to the usual parameters of exchange and discussion. However, deliberately holding this stepped-back position made it possible, over time, for '***something new***' to emerge that could not have been foreseen. The experience was read as an example of a possible balance between structure and openness, and as an invitation to ask how, in ordinary teaching too, rigour can alternate with moments of '***conscious loss of control***'.

The speaker recognised in this experience what he calls ***'the adult's conscious step back'***: not indifference or a 'sort it out yourselves', but a deliberate leaving of room, which implies trust and acceptance of risk. This space is not empty, but inhabited by the presence of the adult, who remains within the process while giving up governing every step of it.

Trust, risk and the teacher's attitude

A central point of the reflection concerns '***trust***', understood as an educational act that necessarily carries the risk of being betrayed. Leaving room does not guarantee positive outcomes, but it creates the conditions for students to take on responsibility and generate processes of their own.

The speaker stressed that this logic should not be confined to special or extracurricular projects, but is a challenge for '***traditional subjects***' too. In particular, he asked what 'leaving room' means in teaching content that is repeated year after year, such as mathematics, history or literature.

The repetition of content and the possibility of the new

Taking the example of teaching *I promessi sposi*[17], the speaker observed that the new does not arise from the content itself, which stays the same, but from the '***teacher's attitude***' and from the encounter with ever-different students. Each class is never a replica of the previous one, and the new can emerge precisely from being together, from the interweaving of what the teacher brings and what new students put into play.

'Making the new happen' therefore does not consist in constantly inventing new activities, but in maintaining an attitude of '***expectation and openness***', giving up the illusion of doing everything alone. In this sense the possibility of the new is linked to the teacher's willingness '***not to take up all the space***', leaving room for the unexpected and for the transformation that arises from the educational encounter.

[17] *Translator's note.* Alessandro Manzoni's historical novel *I promessi sposi* (*The Betrothed*, 1827; definitive edition 1840–1842), a fixture of the Italian secondary school curriculum, traditionally studied in the second year of upper secondary school.

Annex. Questions

- Continuing to reflect on teachers' unease, it seems that somewhere they feel somewhat overtaken by the challenges that lie ahead. What emerges is a sense of powerlessness (last time I spoke of a disorientation they do not admit to themselves) and almost of the school condemning itself to marginality. What can we do? Thinking that we can do nothing but defend our positions against the advance of an inevitable decline seems in fact to be already living inside a dystopian story of the future. How might we instead understand a positive task, or even, at the very least, a resistance full of an educational desire for the future?
- In our schools, perhaps not always with everyone's conviction, we offer flesh-and-blood experiences (meeting the other who may smell or who may even be irritating in their difference or poverty). Here too we are focusing, though I am not sure how far this is shared, on sport and on informal education (music, art...). Do you think these are good directions to take? But how can we avoid reducing these experiences to the purely cognitive? Let me give an example: people always say that the liceo scientifico sportivo is a liceo scientifico, really meaning, quite rightly, that it is a serious school. But why can't the liceo scientifico sportivo be serious because sport is done seriously, and not only because it is serious 'in spite of doing sport'? Or because sport is scientific? Is it only biology, or the physical levers of the muscles, or...? Is this the formative value of sport that should concern a school?
- I would rather not talk again about the short-sightedness of our minister and the current national guidelines. But, as Francesca was saying, how can we change this idea of control? How can we let students have genuine learning and growth experiences, more freely and autonomously, placing ourselves in a position not of control but of accompaniment as they reflect on and deepen those experiences and connect them with life?
- In some cases, observing teachers and educators, a certain anxiety seems to emerge in the adults, arising from the realisation that the link between work and results does not always produce the hoped-for effect. In fact, educational action can only point the learner in a direction; it cannot (and must not) turn into an obligation to follow it. There is also a tendency to reduce the assessment of the impact of one's educational action to what can be observed in the short term, following a sort of implicit 'click taxonomy': if a student does not respond in oral or written tests as the teacher expects, or breaks some rule, the educational action is perceived as a failure. The educational process, on the contrary, is characterised by uncertain outcomes, which are significant in the long term and cannot be fully determined by the teacher or educator, who must therefore manage their own anxieties, fears and doubts, the feeling of failing in their task and the difficulty of finding immediately rewarding elements in the educational relationship. In this context, can digital tools really 'help us to help' teachers reflect on the meaning of educational relationships and of their own profession as a long-term investment? If not, why not? If so, how?

- How can we help teachers overcome their fear, whether explicit or implicit, of a dystopian future dominated by hostile technology? How can we help them to govern change rather than be subjected to it?
- Is it possible to help students discover ways of interacting with technology that are alternatives both to passive delegation and to rejection? If not, why not? If so, how?
- Control on the parents' side. Several years ago, when mobile phones were still something of a novelty, I remember how dumbfounded we teachers were when, before taking middle school children on a school trip, we asked parents not to give their children a mobile phone, and the parents hid it in the suitcase, telling them not to tell the teachers. That was already the beginning of the end. In the past the teacher would communicate with the class parent representative, who would then give the parents news of how the day had gone during the class trip. The mobile phone immediately appeared as a tool for control and for relieving the anxiety of getting news directly from one's own child through a personal device that the child could use in spite of the rules given to the community. There is a need to be reachable that technology seems to solve but which in fact undermines the educational relationship. In a dystopian future, where might this way of managing someone else's time of growing up lead?
- Control on the teachers' side. Technology that makes it easier to control processes, including in class, seems to be appreciated. I check whether everyone is paying attention. The tablet cannot be used in class unless I can check the pupils' screens. In this case the need for control is also a form of responsibility and of managing the lesson. However, it is a reductive use of technology that also says something about its uselessness... it is certainly not an innovative use. There is, however, another kind of control that has nothing to do with technology and concerns the very metabolism of teaching. In the context of frontal teaching and of the lesson/oral test/written test/marks out of ten pattern, I, the teacher, have the feeling that I have the process of learning the subject under control. But is that really so? Could something significant not happen outside this hypertrophic and over-controlled process, with better results in terms of relationships, well-being and the development of broader skills as well?
- Programme versus project. People often say that 'life is what happens to you while you're busy making other plans'. Or that the most important things in life happen unexpectedly, unforeseen, and cannot be programmed or planned. Is this true in the school context too? What is the enemy of this 'new that happens' in today's school? Fragmented timetables? The compartmentalisation of subjects? Classroom spaces? Working alone in the classroom? Assessment? Is it only a personal task that teachers must have the chance to internalise, or can it also be influenced by the school system? How can design (which in theory already exists) break free from the constraints of programming (which is what actually happens)?
- Projection versus 'subjectivisation'. As educators, do we project in our heads the image of our pupils as they ought to be, as we would like them to be, or do we help their originality to

emerge, accepting that it may not match our expectations? If so, do we recognise its intrinsic value for today's school, or are we tied to a school that recognises and assesses only certain kinds of intelligence (logical-mathematical, linguistic-expressive...) and conformity to principles we consider 'good'?

- Inside and outside the classroom. In our schools the quality of the educational relationship is carefully cultivated, both inside and outside the classroom. Yet there are sometimes inconsistencies. For example, a boy on an English-language exchange who manages groups of peers and explains aspects of our city's culture to them in English might get a 5 out of 10 (a fail) in English because he does not know the grammar or, more simply, because he does not study. The 5 is fair from the point of view of his progress in the subject; it is justified and understandable. But his language competence is something other than the mark in that subject. Should assessment criteria be strictly tied to what the school asks for, or geared to language competence in a broader sense? How can subject assessment take account of the transversal skills and abilities that our pupils show they have but that are not provided for by the subject's own criteria? Did you by any chance also deal with this theme in one of your dystopian novels?
- Reforming the organisational model: how can the current organisational model of schools (timetable structure, subject compartments, physical spaces, staff training) be concretely reformed so that, rather than hindering, it facilitates and enhances the development of transversal skills, project-based teaching and long-term educational impact, overcoming the constraints of rigid planning and purely summative assessment?
- The ethics of agency and AI: given the rapid spread of generative artificial intelligence (such as ChatGPT) and its capacity to automate complex cognitive tasks, what new ethical and pedagogical responsibility falls on the school to cultivate in students a *critical awareness* of technology, ensuring that they retain their own *intellectual agency* and do not entirely outsource their thinking to machines?

MEETING 6

Gabriel Velez, Marquette University

16 February 2026

A. Main themes emerging from the speaker's talk

A.1. *Defining artificial intelligence: the destabilisation of identity*

The speaker drew attention to an aspect that he considers systematically underestimated in the current debate: the way in which artificial intelligence is defined. It was pointed out during the meeting that almost every definition automatically places AI in a '***comparative relationship with the human being***', describing what machines can do in relation to, and often in contrast with, human capacities. The speaker did not set out to establish which definition is correct, but to point out the consequences of this pattern of argument, particularly for young people. The introduction of a new car, however sophisticated, does not call into question the basic sense of what it means to be human; artificial intelligence, precisely because it is defined by comparison with human intelligence and capacities, instead has a destabilising effect on identity that concerns not a person's cultural, professional or national belonging but the most essential level: their identity as a human being.

Against this background, the speaker found particular reason to appreciate the position of the Catholic Church, from Pope Francis to Pope Leo XIV, which has defined AI in a coherent way that is capable of challenging the dominant comparative logic, recentring the discussion on human dignity and on the irreducible value of human intelligence and human existence as such. The example was given of a sixteen-year-old who hopes to become a writer or a poet: for this young person, hearing AI discussed as a tool that can do things better than human beings is not simply an intellectually stimulating question, but something that deeply unsettles their sense of purpose and of future possibility. The Church's proposal to speak of human dignity, rather than of the comparative performance of machines and people, was presented as a powerful and largely underused counterweight, to which Jesuit and Catholic schools should pay far more systematic attention.

A.2. *The current landscape: how young people use AI in the United States*

The speaker presented data on AI use among young people in the United States which in themselves give a significant picture. Around a third of young people say they use a chatbot at least once a day. Even more relevant for educational reflection is the increasingly widespread tendency towards a use of AI that goes beyond support for schoolwork or work and takes the form of a genuine relationship: a growing number of young people hold '***ongoing conversations***' with chatbots, build interactions with them that they perceive as forms of attachment, and devote a substantial share of their daily time to this kind of exchange.

As regards school policies, it was pointed out that the responses of schools in the United States fall into three main types: around 40% have adopted a '***total ban***'; around 20% '***allow use***' but '***without a fully developed policy***'; the rest have varying arrangements that leave it to individual teachers or departments. The speaker identified this inconsistency as a serious problem, underestimated from a developmental point of view. Research and his own direct conversations with students show that the lack of clear and stable expectations, which vary from one classroom to another or from one school to another, or which are not made explicit at all, generates a form of '***diffuse anxiety***' in students: they do not know whether the use of AI they are considering, or already making, breaks the rules or not, and this uncertainty is in itself harmful to development.

A.3. *The levels of discourse about AI in schools and what remains invisible*

The speaker set out with precision the structure of public debate about AI in schools. On the surface two dominant and mutually contradictory narratives confront each other: on the one hand, '***concern about cheating***' and the need to curb it; on the other, the urgency of preparing students for the skills demanded by the '***labour market***'. Young people absorb both messages at the same time and are left alone to manage a contradiction that is given no space for collective reflection: AI is at once the road to the future and an improper practice. Another theme that is not sufficiently addressed is relationality, that is, the ways in which students may interact with chatbots as social companions.

It was stressed, however, that there is an underlying level, largely neglected, made up of four dimensions that rarely enter school conversations but which profoundly shape young people's relationship with technology. The first is the '***economic and capitalist dimension***': AI is not a natural resource discovered in the world but a commercial product created and distributed by companies with specific interests, and this awareness is a necessary part of any critical reading. The second is the dimension of '***cultural norms***': what is regarded as legitimate or illegitimate use of AI is not culturally neutral. The third is the connection with '***climate change***': the speaker gave the concrete example of the proliferation of data centres in his own area of Milwaukee, facilities that require considerable quantities of energy and water and have a direct impact on the environmental balance. The fourth is the '***existential dimension***': narratives associating the development of AI with scenarios of radical crisis for the human species are widely and forcefully circulated, and these narratives, however one judges them, form part of the cultural background within which young people live and interpret technology.

The speaker insisted that these dimensions must be brought explicitly into conversations with students, rescuing them from the invisibility in which they remain when the discussion is reduced to the two dominant poles. He also proposed a fundamental interpretive distinction that he considers critical: there are those who treat AI as relevant to education as a tool of '***preparation for the future***', for skills and for the labour market, and those who, like him, recognise that AI is already '***an integral***

part of the present life' of students. How they relate to it now, in their everyday and formative experience, is itself already the life that matters. Pope Francis, the speaker recalled, indicated the search for meaning and the building of relationships among the fundamental purposes of education: aims that are measured not by future results but by human experience as it unfolds.

A.4. *Fundamental educational questions: what development requires of us*

From this perspective, the speaker proposes returning to essential questions:

- What are the founding aims of education?
- How do students understand these aims (making meaning versus getting the mark)?
- How can students be included in conversations about AI, instead of limiting deliberation to adults?
- How can human relationships be put back at the centre when technology increasingly imitates relational interaction?

A.5. *The developmental psychology perspective: systems, needs and the unknowns of innovation*

To give a theoretical framework to the relationship between young people and technology, the speaker drew on Urie Bronfenbrenner's Ecological Systems Theory, presented as an antidote to a pervasive tendency in schools: that of addressing AI-related questions by focusing exclusively on the individual student, on their choices, their behaviour and their ethical responsibilities. This approach, the speaker argued, overlooks the fact that every individual is shaped by a multiplicity of interacting '***overlapping systems***': peers, family, school, the media, prevailing cultural norms and the wider political context. A student who uses AI to cheat is not simply making a wrong individual choice; in most cases they are responding to intense academic pressure, to forms of isolation and loneliness, or to cultural messages about success and personal worth that reach them from every direction in their environment. Any intervention that ignores this systemic complexity is bound to remain superficial.

It was pointed out during the meeting that young people today are facing pressures of different kinds all at once (identity questions linked to migration, climate anxiety, economic inequality, political polarisation and the well-documented mental health consequences of prolonged social media use) and that their relationship with AI must necessarily be read within this landscape. The speaker illustrated this argument with a concrete example: much of students' chatbot use responds to two '***basic needs***'. The first is '***academic pressure***': if an AI tool can help them get a better mark and secure access to a desired university course, students perceive it as a rational solution to a real source of stress. The second is '***loneliness and relational difficulty***': the chatbot always listens, does not judge, does not tire and is available at any hour, and in this way it offers something that real human relationships cannot always guarantee with the same consistency. The speaker then recalled three principles of developmental psychology that he considers directly relevant to this reflection. The first is

the '***centrality of relationships***': relationships with teachers, peers and family are decisive for development, and it is not yet clear what it means, in developmental terms, to replace some of their functions with artificial tools. The second is the '***non-arbitrary nature of young people's choices***': young people's behaviour is not merely impulsive or random, but expresses a coherent, if partial, interpretation of who they are and what is expected of them. The third, and the most important looking ahead, is that the '***consequences***' of innovations for young people are not understood until a decade or more after mass adoption. The case of social media was cited as a warning: having burst into young people's lives ten to twelve years ago, only now is it yielding robust and alarming evidence of the harm done. With AI, the speaker stressed, things are moving even faster, and reflection on the long-term developmental consequences is even less structured.

A.6. *Research findings: surveys of educators and students in Jesuit schools*

The speaker presented the findings of two studies conducted in Jesuit schools in North America and Central America. The first, carried out in 2024 with more than a thousand educators, mostly secondary school teachers and some school leaders, produced a result that the speaker described as among the most significant: around 60% of respondents said that their students did not have the tools needed to make '***ethical decisions***' about AI. This answer was, however, accompanied by an assessment pointing the other way: asked whether students were in principle capable of such decisions, 60–70% of the same educators said yes. The gap between the two answers therefore indicated not an incapacity on the students' part but a '***lack of guidance***', support and adequate structure. The educators wanted to help their students navigate AI ethically and thoughtfully, but did not know how. The speaker pointed out that these data are now a few years old and that the picture continues to change rapidly.

The second study, conducted in spring 2024 with around 1,500 students across thirteen schools of the Jesuit Schools Network, produced five main findings. First, almost all students said they used AI, describing their use in terms of '***good intentions***': not to cheat, but '***to understand***' and to deal with difficulties. The speaker noted that, while allowing for the bias inherent in self-reported data, the study was conducted anonymously by external researchers, and that there is broader evidence supporting this picture: a student struggling with a maths problem at nine or ten in the evening cannot phone their teacher, and at that moment the AI chatbot is the most '***accessible***' resource. Second, nearly all students used ChatGPT exclusively, not recognising as AI other tools in which it is embedded, such as Grammarly or social media recommendation algorithms. Third, most said they knew how to use '***AI ethically***', despite having received no guidance on the matter from either school or parents: they had largely '***taught themselves***' through friends or social platforms, a gap the speaker described as significant. Fourth, heavier use of AI correlated with '***lower confidence in their own abilities***' in academic work, although the direction of causality remains uncertain. Fifth, many students expressed marked anxiety about the future, about jobs being replaced and about a world

shaped by AI, and linked this anxiety to their current use of the technology, perceived not as a mere tool but as an agent of changes that worry them deeply.

The speaker chose to let the students speak for themselves by quoting three particularly telling extracts. The first expressed the worry that society might become so dependent on AI that it would lose the ability to carry out basic tasks. The second acknowledged the value of AI for understanding content, but specified that it should be used to understand, not to get answers, admitting that one does not always manage to stick to this. The third described the anxiety of not knowing what to study at university because of being unable to judge which professions will survive replacement by AI.

A.7. *Discernment as a framework: the Ignatian approach to navigating AI*

The speaker proposed discernment, rooted in Ignatian pedagogy and in the founding values of Jesuit education, as the central framework for addressing the question of AI in educational settings. He described it as a cyclical, iterative process in four moments: clarifying fundamental values and '***educational aims***'; planning how to address or '***incorporate AI***' in the light of those values; concrete action that '***involves students***' in the process; and '***collective reflection***' on what has happened, before starting the cycle again. The speaker insisted on '***iteration***' as an essential dimension: since the consequences of AI cannot yet be fully known, continually returning to discussion is not a limitation but a structural necessity.

How this framework translates into practice was illustrated through his own teaching at Marquette. Every activity involving AI tools is designed starting from the final aim: not the product itself, but the relationships built through it and the understanding to be fostered. At the end of each activity, students are not only asked 'what did you learn?'; there is a structured reflective debriefing: 'what was positive?', 'what didn't work?', 'how did you feel?', 'what came to mind?' '***The whole experience***' is the object of attention, not only the content learnt. Many of these activities also involve service learning with local partners, so that reflection is rooted in real and tangible impact.

The speaker explicitly connected this approach to the core values of Jesuit education: cura personalis, understood as attention to the whole person and not only to their academic performance; the commitment to act for a good that goes beyond the immediate goal of the mark or the result; and the unity of heart, mind and soul, which means not treating AI as a mere tool to be used or avoided, but asking how it interacts with one's deepest sense of who one is. It was strongly emphasised that these values require no adaptation or revision in response to AI: on the contrary, they are exactly the foundation needed to navigate the present historical moment wisely.

The model developed by the speaker was called ***'relational discernment'***: the '***relationship between educator and student***' is its indispensable foundation. It is within that relationship that an open and transparent conversation about AI becomes possible; it is that conversation that enables genuine cognitive discernment on the student's part, not a discernment that can be imposed, but one that can be cultivated through the quality of the bond. The demonstration of cura personalis, in turn,

strengthens the relationship, generating a self-sustaining virtuous circle. It was pointed out that a '***sense of belonging***', feeling connected to and supported by one's school, has documented positive effects on many dimensions of development, and that one of the speaker's central concerns is that indiscriminate use of AI may erode precisely the relational fabric that produces this sense of belonging: students might achieve better academic results by using AI tools, but this will not help them feel part of an educating community.

B. Discussion: main themes emerging

Can the proposed framework be extended to the use of ICT more broadly?

The first contribution raised the question whether the speaker's reflection applies not only to AI specifically but, more generally, to information and communication technologies as a whole, including, for example, the use of smartphones. The speaker acknowledged that the framework could be extended, explaining that his own entry into the field of AI had come not as a researcher of technology but from reflection on peace education, restorative justice and the impact of COVID on young people: technology entered his field of observation as a phenomenon affecting young people's development, not as a technical object in its own right.

In support of this reading he gave two emblematic cases. The first is the introduction of laptops and iPads into schools, which took place with an optimism partly justified by concerns about '***equity***' (schools in affluent neighbourhoods already had technology that those in poor neighbourhoods lacked), but without any real involvement of young people and without adequate attention to the dynamics that would be set in motion. In many cases the results showed not only a '***negligible improvement***' in learning outcomes but concrete '***negative consequences***': access to inappropriate material during school hours and attention scattered across non-educational activities, often without teachers noticing. The second case is that of smartphones: the movement in the United States towards outright bans in schools is understandable, but it solves only the immediate management problems and does not address what the speaker considers the substantive question, namely that schools should be places where young people learn to build a healthy relationship with something that will in any case be part of their lives.

The conclusion put forward was that the same developmental framework applies across all these technologies. The relevant question concerns not what the technology does in a technical sense, but how it is '***shaping the understanding***' that young people have of themselves and of their '***place in the world***'. And the right approach is always the same: openness, transparency, genuine understanding of what is happening to young people, and support in building healthy relational habits.

From principles to practice: concrete cases and persistent challenges

The second question asked whether, and to what extent, the speaker had moved from reflection on principles towards concrete applications in schools and classrooms. The speaker pointed to his

own course at Marquette, structured entirely around the principles of Ignatian pedagogy and a framework of discernment, as the most developed example of this translation at university level: a course that is at once about AI literacy and reflective exploration, in which collaboration with a local Jesuit high school, Cristo Rey Jesuit High School, has made it possible to develop concrete materials to take into a real school setting.

As regards working directly with schools, the speaker acknowledged two persistent structural challenges. The first is that schools operate under '***enormous pressures***' (financial, political and from stakeholders with conflicting interests), and that, although many of them are beginning to centre the '***relational dimension***' in their approach to AI, very few are putting into practice the kind of openness and transparency that the speaker considers truly necessary. The second is '***diversity within the teaching staff***': teachers in the same school have very different perspectives on technology and levels of comfort with it, which makes it hard to build coherent institutional approaches. The work the speaker has found most promising has been at the level of the teachers themselves: creating '***communities of practice***', such as those launched at Regis High School in New York, in which teachers can share openly how they feel about AI, exchange resources and build shared understanding. This work, he argued, is the necessary precondition for then doing the same with students.

Teacher training: key ingredients for professional development

The third question addressed the preparation of teachers directly, pointing out that the Italian situation, in which a large part of the teaching body is unable to engage with these issues even at a reflective level, is not an isolated case but a widely shared condition. The speaker readily acknowledged that the same diagnosis applies to the United States: many serving teachers have decades of experience behind them, smartphones entered their professional landscape only in the last ten years, and AI is even more recent. Moreover, initial teacher education programmes do not deal with it systematically.

Three components of effective professional development were identified. The first, considered fundamental, is '***helping teachers to understand***' genuinely what is happening in their students' lives. It was strongly stressed that a teacher may have the best of intentions and write the syllabus with the utmost clarity, but this does not guarantee that students will take in or internalise the expectations in the way intended: a student may sign a document undertaking not to use AI and then not think about it at all in the way the teacher means. Developing the ability to grasp how students actually experience what is asked of them is the first and most necessary step. The second component is '***tiered professional development***': forming groups that are homogeneous in their familiarity with AI, so that those starting from scratch can engage in a non-judgemental space pitched at their level, without the inhibiting presence of far more advanced colleagues. The third component, recognised as being in tension with the second, is the creation of '***heterogeneous communities of practice***', in which different voices and skills meet and enrich one another. What he had seen at Regis High School was the

power of peer learning: relationships and channels for sharing knowledge are built that outlast any single training intervention and sustain themselves over time. A workshop led by an outside expert puts down no roots; a community of practice, once started, can develop on its own.

AI use and academic confidence: telling healthy adoption from dependence

A participant highlighted the research finding showing a correlation between heavier AI use and lower confidence in one's own academic abilities, and asked the speaker how educators can help students and teachers distinguish between acquiring a powerful tool and developing a functional dependence, and what metrics or warning signs might guide this judgement.

The speaker acknowledged the genuine difficulty of drawing this line, pointing to parallels with similar debates about healthy and unhealthy use of smartphones or video games. He pointed out that '***young people's metacognition***', their capacity to reflect on their own thinking and behaviour, is structurally less developed than that of adults, which makes it harder for them to notice when they have crossed a threshold. He also recognised that AI has genuine value in learning: precisely because it can personalise, work iteratively with the student and never tire, it can help those who are struggling to reach understanding in truly valuable ways. The risk is that this very quality turns into '***dependence***'.

He then described an ongoing '***experimental study***' in which university students are randomly assigned to three conditions for a writing exercise: free use of AI tools; an explicit ban before the task begins; unexpected removal of the tool halfway through the task. Pre- and post-measures are taken of perceived confidence, quality of performance and emotional state. Preliminary results show that many students are affected by the unexpected removal of the technology. The speaker suggested that educators could replicate this logic without making it a formal experiment: set a task without AI, without it counting towards the mark, and then explore openly with students how they felt, whether they felt capable, and what the experience revealed about their relationship with the tool. He also suggested that teachers compare the products of a task done by hand with those of a task completed entirely with technological assistance, as an exercise in observing students' real competence and confidence. Finally, he mentioned validated quantitative instruments for measuring academic self-efficacy as possible metrics, adding that he and his colleagues are working on a version specifically for self-efficacy in relation to AI.

Working with sceptical or resistant teachers: what really works?

A participant asked the speaker what point of leverage he had found most effective in working with sceptical or resistant educators, and what, in the end, had won over even the most reluctant. The speaker began by recalling a well-established finding in psychology: when people are resistant to something, presenting them with information and statistics does not work. Nor does telling them what to do. The approach he has developed consists of three successive moves.

The first move is '***validation***': beginning by genuinely asking teachers how they feel and what concerns they have, and taking those concerns seriously. Whether a teacher fears cheating, worries about the environmental implications of data centres or has reservations of another kind, the speaker always starts by recognising that the concern is legitimate. Starting from validation shifts the dynamic from confrontation to conversation. The second move is '***exploration***' and, where possible, play: demystifying AI through enjoyable and non-threatening activities, such as producing an amusing image, trying out a creative prompt or discovering something surprising. The third move is to link AI to a '***concrete benefit***', an immediate one for the teacher personally rather than for the students. The example cited as particularly effective was that of mapping curriculum content to state learning standards: a burdensome administrative task that AI can carry out in full, freeing up precious time for the activities the teacher finds most meaningful. Once teachers have personally experienced a concrete benefit, they become much more willing to think about how AI might be used productively with students: from that point on, the road becomes much shorter.

Students who use AI for personal matters: the relational risk and the role of parents

A participant described a phenomenon observed in Italy: young people turning to chatbots not only for schoolwork but to write messages to their partners, seek guidance on important personal decisions and navigate emotional questions about their identity and relationships. The participant linked this observation to the argument that schools should engage with AI rather than shy away from it, and asked the speaker to reflect on this dimension and on the role that parents can and should play.

The speaker described this as a deeply significant concern and one largely underestimated in the current debate. He framed it in developmental terms: some of the most important work of adolescence is done precisely in '***moments of vulnerability***', when a young person brings a question, a fear or a worry to a trusted adult (a teacher, an educator, a coach). In that act, a '***relationship***' is built and strengthened. If the young person instead takes their vulnerability to a chatbot, that relational opportunity is simply lost. And because the relationship is not formed, the young person will be less inclined to turn to the adult in future, setting off a progressive cycle of relational withdrawal and growing dependence on technology for needs that are, by their nature, interpersonal.

A structural difference between chatbots and human relationships was highlighted during the meeting, one that the speaker considers critically important from a developmental point of view: chatbots are designed to be '***always agreeable***', inexhaustible and entirely centred on the user. They share nothing of themselves. They do not contradict. They do not challenge. They are available round the clock. A young person who gets used to this kind of interaction risks finding real human relationships disorienting by comparison, because real people disagree, have needs of their own and set boundaries. The danger is not only dependence, but a distorted and impoverished understanding of what human relationships are and how they work.

The speaker acknowledged that he does not yet have fully worked-out answers for responding to this specific dimension educationally. The most concrete suggestion he put forward was that creating genuine '***spaces of openness and transparency***', environments in which a young person can reveal without fear of judgement that they have turned to a chatbot about sensitive matters such as those relating to sexuality, is in itself an educational achievement of great value. If young people know they can tell an adult what they do with AI, the adult can start a conversation: what did it tell you? did it help? let's talk about other kinds of support. The alternative, discouraging the use of AI for personal matters by invoking data privacy, will only ensure that young people do not reveal what they are doing. The primary aim must be to create the conditions in which they can.

On the role of parents, the speaker described two recurring patterns. In some families, fear of the economic consequences of AI (the parent who works in medicine or technology and fears for their job) is passed on to the child, who arrives at school with a relationship already marked by anxiety and mistrust. In other families, parents are almost entirely unaware of what their children do with AI: they do not know that their child uses Replika, an AI companion app designed for ongoing emotional interaction and the simulation of attachment, nor that conversations apparently with a friend on Snapchat may in fact be interactions with an AI bot built into the platform. The gap between parents' perceptions and what is actually happening is often considerable. It was stressed that schools' contact with families cannot be limited to communicating the policy: they need to build '***parents' understanding***' actively of what AI is, how their children use it and how to hold meaningful conversations about it at home.

The risk of the school becoming irrelevant and the role of the educator today

A participant raised a concern directly connected with the Italian political context: the government's intention to ban AI in schools and the risk that this will produce a growing gap between the world of school and students' real lives, eventually condemning the school to progressive irrelevance. He asked the speaker how to address this risk and, in a nutshell, how to define the teacher's role at the present moment.

The speaker replied that banning AI in schools does not stop students from using it: it simply means they use it '***without guidance***', without a critical framework and without the benefit of being accompanied by adults they trust. He drew an explicit parallel with other areas in which prohibition policies have proved ineffective (alcohol, drugs, sexuality): when adults give up creating open spaces in which young people can learn, discuss and reflect, young people do not stop the behaviour in question; they simply engage in it in riskier conditions. He noted that in the United States some well-resourced schools are moving in the opposite direction, integrating AI systematically and developing their own tools; but that the political context in the United States, with government funding and commercial offers from OpenAI and Google, is very different from the Italian one, where institutional pressure seems to point the other way.

On the role of the educator, the speaker pointed to what he called '***the non-negotiable core***': enabling the student's humanity to emerge, develop and flourish, intellectually and personally. A kind of release of potential. What makes this task distinctive in the present context is that education has become increasingly results-oriented (the mark, university entrance, the professional profile) and that AI tools are already able, and will be ever more able, to support the achievement of those very results. But AI cannot be the person who stands beside a student with their own humanity and dignity, who '***genuinely empathises***' (not imitating or mirroring empathy but living it), who recognises the '***unique person***' before them and helps that person's sense of meaning and worth to come to light. This, the speaker argued, is irreplaceable. He connected this argument to the constant message of the Church, from Pope Leo XIV to Pope Francis, which has asked neither to ban AI nor to condemn it, but to put human dignity back at the centre, together with the question of what it really means to be human. The speaker closed by acknowledging that all this is much easier to state than to practise, but that it is the direction he considers genuinely necessary.

Are the fundamental aims of education still clear? The countercultural challenge

A participant questioned the speaker's recurring appeal to the fundamental aims of education as a stable point of reference, asking whether it is really easy or clear to define what those aims are today.

Returning to Bronfenbrenner's framework, the speaker stressed that even a school that sincerely and deeply centres its educational purpose on human relationships, meaning and dignity is still only one component of the wider system in which the young person grows up. Outside that school, young people receive powerful and pervasive messages conveying a '***very different hierarchy of values***': which university, which job, what performance, what profile. An educator can build a genuine relationship with a student and convey authentically that what matters is the person, not the mark, but that student is at the same time immersed in a system that sends the opposite message from every other direction. During the meeting this was described as a countercultural condition, rather like the labour of pushing a boulder up a hill. The speaker made clear, however, that he does not think it necessary to give up the aspiration or to change the basic direction: rather, one needs to be honest with students about this tension, to name it, to '***invite them to share***' what they actually experience and what they see as important, and to work together to narrow the gap between the values the school professes and the everyday reality in which the student lives.

The developmental benefits of AI in schools: what can it genuinely offer students?

In the last part of the discussion a participant asked the speaker to highlight the benefits AI can offer students from the point of view of developmental psychology.

The speaker replied that the most significant and genuinely transformative benefit is the '***personalisation of learning***': with thirty students in a class it is simply impossible for a teacher to reach

each of them exactly where they are, at their own level, at their own moment of need. An AI tool can do this, adapting to each student's particular path, proceeding iteratively and never tiring. Evidence was cited that AI tools for learning mathematics have produced particularly significant results. He added, acknowledging that the finding might be surprising, that well-designed AI tools have shown a genuine capacity to support the '***development of empathy***' in students, precisely because of their ability to engage with each student's real level in ways that would be hard to sustain in a large class. He reaffirmed the practical value of an '***always-available resource***' in the evening, when a student is struggling and cannot reach their teacher: this is a real benefit, not a marginal detail. The conclusion was consistent with the overall thrust of the talk: the point is neither to exclude AI nor to belittle its potential, but to ensure that it is always deployed in the service of the real developmental aims of education, and always placed within, never in place of, the human relationships and human dignity that form the irreplaceable core of every formative process.

C. Practical suggestions and final conclusions

First, the need for clear, consistent and age-appropriate '***guidelines***' emerged strongly. The research evidence leaves no room for ambiguity: inconsistent expectations about AI across classes, schools and settings generate anxiety and confusion that are in themselves harmful to development. Students need stable and reliable frameworks, differentiated by stage of development: the considerations relevant to a twelve-year-old entering a new school environment are substantially different from those concerning an eighteen-year-old beginning to think about their university and career path.

Second, and with equal urgency, the need was identified to '***create open spaces***' in which students can talk about AI not only in practical terms but authentically: how they experience it, what they fear, what they find valuable, what it means for their sense of self and for their place in the world. Most schools do not create such spaces, opting instead to block.

'***Teacher training***' was identified as the real bottleneck: without educators who are themselves prepared, not as technical experts but as reflective, aware guides firmly rooted in the relational dimension, none of the interventions aimed at students can have lasting effects. Effective professional development must combine genuine validation of teachers' concerns, experimentation, concrete demonstration of the value of AI for teachers' own daily work, and the building of peer communities of practice able to sustain themselves beyond any external intervention.

'***Family involvement***' was identified as a largely underused resource: schools must go beyond communicating their policy and actively build parents' understanding of AI, including awareness of the specific tools (companion apps, chatbots built into social platforms) that their children may be using in ways their parents do not know about or do not recognise as AI technology.

The deepest and most recurrent conclusion of the whole session was that AI does not require schools to become something fundamentally different from what good schools have always sought to be. It requires them to become more fully and more deliberately what they should already be: places in which human relationships, meaning, dignity and discernment are at the centre of every interaction, and in which the development of the whole person, not the optimisation of performance, is the purpose that guides every choice.

MEETING 7

Mauro Magatti, Università Cattolica di Milano; Emanuele Fusi, Fondazione Poetica

2 March 2026

A. Main themes emerging from the speaker's talk

A.1. *Technology as pharmakon: Stiegler's pharmacological perspective*

The speaker opened his talk by recalling the thought of '***Bernard Stiegler***', a thinker who has had a great influence on his own intellectual path. Stiegler insisted that technique and technology must be thought of as a '***pharmakon***', a term which in its original Greek sense (phármakon) means both remedy and poison. This 'pharmacological' perspective was proposed as a compass for navigating the debate without falling into the two emotional drifts that tend to polarise it: on the one hand techno-optimist enthusiasm, according to which technology will solve everything; on the other technophobia, according to which technology is an absolute threat against which we must defend ourselves. The truth, the speaker stressed, lies in the complexity of the pharmakon: while it solves problems, it creates new ones. Both emotions must be 'kept in check'.

The question, the speaker pointed out, is not new: it goes back at least to Socrates and Plato. Socrates, who had refused to write although he was presumably able to do so, was fully aware of the power of writing as a technique. '***Writing***' was the first great technique for 'disembodying' thought from the living being: that mysterious and magical thing that is thought, which passes through the body, interacts with the environment and becomes language and communication, is something that belongs to the living and to life in its fullness. When this capacity is separated from the living being and embodied in a technique, writing first of all, the process enormously enhances many things: thought could be better structured, memorised and handed down. But this leap is no small matter.

Plato made a choice that seems to contradict his master but is in fact highly sophisticated: he did write, disobeying Socrates, but he did so in the form of the dialogue, the form closest to living speech. And in every dialogue he left an aporia, a logically unresolved point that refers on to another dialogue, as if to escape the temptation of the closed, definitive answer, dead on the page. At the same time Plato founded the Academy: a formative and educational institution created precisely to 'deal with' what was becoming written, to keep alive the relationship between the text and the living. The speaker stressed forcefully that we are still there: artificial intelligence poses again, in an infinitely more evolved and complex form, the same challenge that writing posed to Plato. On the one hand it enhances, and will enhance, our capacities, our knowledge and our thinking; on the other it will create an enormous number of problems. And the question is: what are '***the institutions, the social forms, the forms of human life***' that we must invent '***to sustain this transformation***'? Just as Plato invented the Academy, we must invent something else.

A.2. *A pharmakon for what? AI as the pharmakon of liquid modernity*

To answer the question ***'a pharmakon for what?'***, the speaker proposed an interpretive key that starts from the concept of ***'liquid modernity'*** developed by Zygmunt Bauman. The thesis is that digitalisation, and in its most advanced form artificial intelligence, is the pharmakon of liquid modernity: the technical instrument built to respond to the growing organisational problems of a society that has undergone a radical historical transformation.

The historical phase behind us broke down and dismantled the cultural patterns, relational structures and community bonds that held individual existence together. Individualism was born as a culture of the self, but within highly structured cultural, religious and political contexts: there was a culture of the self, but concrete lives were still embedded in relatively stable and solid relationships. What happened in the last decades of the twentieth century was a further leap: ***individualism became 'individualisation'***, a very concrete, everyday process. The speaker offered an immediate and recognisable example: in the morning we leave home, get on a tram, go to a meeting, then to the gym, then somewhere else. The only constant in our days and weeks is our own self, which meets many people and many settings without any of them being a stable point of reference. This process of individualisation carries with it all the social and relational transformations of recent decades, from the family to the world of work, and it is an important step forward in the historical process: we are selves not only because we have an individualistic culture, but because we actually live lives that revolve around us and our thousand commitments.

The result is a ***'super-society'*** of billions of individuals, each convinced of having a sacred right to their own existence, to self-realisation and to unrestricted mobility. Organising this reality is a problem of enormous proportions: how do you coordinate billions of individuals moving freely, each on their own trajectory? Digital technology and artificial intelligence are, from this point of view, the technical answer to this problem. Digital platforms and applications were described as ***'pseudo-institutions'***: in practice they perform the same function as traditional institutions, steering and regulating the behaviour of millions of individuals, even though they lack all the formal constitutive features of institutions. It is clear, the speaker concluded on this point, why economic investment is converging massively on this sector.

By way of example, the phenomenon of influencers was mentioned: people who have no formal institutional role but who in practice steer and give direction to tens and hundreds of thousands of people. The case was recalled, reported in the media shortly before the meeting, of a young man who during COVID, not knowing what to do with himself, had started making particular gestures that went viral: that young man then sold the rights to his digital avatar, allowing artificial intelligence to reproduce him in his place. The speaker observed that this is an emblematic and fascinating story, which says a great deal about how digital technology is redefining the relationship between identity, body and presence.

A.3. *Modern reductionism and its embodiment in artificial intelligence*

The speaker proposed a philosophical reading of artificial intelligence as ***'the embodiment of modern reductionism'*** and as the ***'great technical myth'*** of our time. Modern reductionism means the claim, born of scholasticism and modernity, of which Habermas was described as the last and 'failed' representative, to build social life and an interpretation of reality on a self-grounding reason. This claim has progressively narrowed logos down to calculation, to number. Leibniz had predicted that the day would come when 'there will be no more disputing, only calculating': artificial intelligence is, on this reading, the most complete form of that imaginary.

It was recalled that artificial intelligence was born with the cybernetic project: the cybernetic idea was that human communication, however rich, was intrinsically inefficient (after an hour of conversation only a few ideas remain in one's head, with an enormous loss of information). The solution proposed was to '***turn communication into information***' '***and information into number***', eliminating the loss. The word 'digital' comes precisely from 'digit': digital technology is that extraordinary technical operation that turns any content into numerical sequences, guaranteeing transmission without loss. The speaker illustrated this step with a concrete example: it is one thing to describe a trip to Rome in words, another to send a postcard, and yet another to take a photo of the Colosseum on one's phone and send it immediately to those who stayed at home, with an almost complete transfer of information.

In school and in society, the speaker identified two keywords symptomatic of this '***digital paradigm***': '***performance and standard***'. Performance comes from the English verb to perform, which has several meanings, one of which, central to Weber's analysis, is to reach the objective, the target: everything is identified as a precise, measurable, quantifiable objective. 'Standard' goes back to the old word for a battle standard, the small flag that was planted on the battlefield as a point of reference: the more one measures, the more points of reference are introduced. Young people today, unlike previous generations, who at most compared themselves with their classmates, measure themselves against national and international benchmarks. The speaker observed, with an autobiographical note, that in his day at the liceo marks were rough and ready and were compared only with the class next door; today, by contrast, ten correct answers out of ten on multiple-choice questions produce an indisputable score, comparable with global standards. This logic 'gets in everywhere', including medicine.

A.4. The three systemic risks: life, domination, deculturation

The speaker identified three major systemic risks that the current process entails if we do not manage to build institutions capable of governing it.

The first and most profound is '***the threat to life***'. Modern reductionism, embodied in artificial intelligence, radically completes the operation already glimpsed by Socrates and Plato: disembodying thought from the living being. Human intelligence, however, is intrinsically living: it is made of

emotions, affections, awareness of life and death, questions of meaning. The speaker put a direct question: if there is an intelligence that detaches itself from the living, that stuff is not us. For human beings, the only intelligence that counts is '***the intelligence of the living***': the fact of being aware that we live and die, of asking questions about meaning, of having emotions and affections. We do think with calculation and instrumental reason, but also with all these other dimensions. Who looks after them? Who develops them? The risk is not that of transhumanist delusions, which see biological life as a defect to be corrected, but the more everyday and pervasive one of decisions based on algorithmic calculations that deeply affect people's lives. The speaker recalled that in human history every age in which a monopoly of power has taken hold has produced human sacrifices: in the name of an almighty God, in the name of political omnipotence, in the name of technical omnipotence. The issue is not to '***contest***' power as such, but '***the monopoly of power***'.

The second risk is that '***of domination***'. The speaker recalled the concept of 'psychopolitics' developed by Byung-Chul Han, observing that we have now reached 'neuropolitics' and certainly already neuromarketing. The difference from traditional advertising is clear-cut: it is no longer a matter of persuading someone, of stimulating a desire that the person then processes rationally. It is a matter of administering the right stimulus at the precise moment when the window of attention is open, so that the desired behaviour is produced automatically, before any reflection can intervene. The speaker illustrated this mechanism with an example from his own experience: he had gone on a television programme to present a book, and during the live broadcast he had watched in real time as the book climbed the Amazon rankings while the programme went on. The logic is that of Amazon's 'Buy Now' button: you have to do it at that moment, because if you go home and think it over, in the meantime you have seen other books and you no longer buy it. The same logic applies to politics: figures such as Trump do not worry about consistency, because they act according to a logic of immediate stimulus and response that leaves no room for critical reflection.

The third risk is that of '***deculturation and cultural chaos***'. Drawing on a French sociologist, the speaker described the disintegration of the cultural, religious, national and political matrices that historically gave meaning and coherence to individual and collective experience. To illustrate this state of affairs, the speaker evoked Marcel Duchamp's great work, The Large Glass, used as a metaphor for the present time. The work is divided in two by an iron bar: in the lower part are the bachelors, figures presented as pistons driven by a machine in a logic of acceleration and efficiency; in the upper part is the bride, desire, transcendence, kept apart. The speaker stressed that in Duchamp's work there is no immanence, there is surreality: we are not simply inside everyday reality, but in a space in which true and false, right and wrong, above and below, before and after can no longer be told apart. The contemporary world is like this: there is no longer a clear order, it is increasingly difficult to distinguish what is true from what is false, and this gives enormous powers of manipulation to those who know how to use surreality. The historical outcome is paradoxical: a society that reaches ever higher levels of technical efficiency in conditions of maximum cultural chaos.



A.5. *Cultivating living intelligence: a possible institutional response*

On the basis of this diagnosis, the speaker proposed, as a constructive perspective, the need to ***'cultivate the intelligence of the living'*** and to create institutions aware of this intelligence, which look after it and help it grow by bringing it into dialogue with artificial intelligence. The intelligence of the living is the one that includes the dimensions excluded by reductionism: emotion, affection, meaning, bodiliness, awareness of one's own finitude, the capacity to be with oneself and with uncertainty.

The speaker made clear that artificial intelligence is not to be rejected: for some specific cognitive functions it is already far superior to the human brain, just as the locomotive and the car outstrip our legs. For those functions, delegation to the machine is not only possible but desirable. The problem arises when delegation oversteps this sphere and encroaches on dimensions that are constitutively human. Artificial intelligence keeps advancing on its own, driven by extremely powerful economic and technological engines; it is in cultivating living intelligence that we are far behind and that there is a great deal of work to be done. That is where efforts must be concentrated.

The speaker concluded this part with an invitation to '***concrete experimentation***': not to solve the problem, which is impossible, but to try, to experiment, to find ways forward. The aim is to concentrate on this part, also trying to win over investors and to open up spaces, with concrete steps.

A.6. *The second talk: the imaginary, hybridisation and the school as a laboratory of cognitive resistance*

The second speaker organised his contribution around three themes closely connected with the previous talk.

The first theme concerned '***the collective imaginary surrounding artificial intelligence***'. It was pointed out that there exists, among young people and teaching staff alike, a very powerful imaginary that tends to present AI as '***inevitable and necessary***'. Not that it should be rejected, but this narrative frame imposes a speed of adoption and uptake out of all proportion to our critical capacities. This setting, with inevitability as the starting point, works against any deep reflective work. Paradoxically, it was observed, young people sometimes show greater critical capacities than adults, even if they are not fully aware of having them: their behaviour often expresses a mute refusal of a world that is too fast and too performance-driven, and that resistance should be read not as ignorance or incapacity but as a signal to be interpreted.

The second theme took Miguel Benasayag as its starting point: we must not delude ourselves, '***we are already hybridised***'. Human-machine hybridisation is already very deep, even at the neural level, as can be observed empirically through the mechanism of 'delegation of function'. Delegation of function is the process by which we have moved certain cognitive functions into the machine: our brain to some extent frees up those areas, but to reuse them it takes much longer than the machine takes to perform those same functions. We '***have gained speed***', but we have '***lost the ability to inhabit time***'. This leads to '***the theme of time***' as an essential question: in an age of efficiency and immediacy, we shift onto the machine what it does faster than we do, but what we are called to regain is the capacity to dwell in time. The speaker recalled Augustine, for whom time is memory, attention and aspiration: three acts that make existence human and that must be cultivated deliberately, because the machine cannot do it for us.

The third theme put forward the vision of ***the school as a 'laboratory of cognitive resistance'***, a phrase borrowed from Luca Baraldi. The school today stands between two extreme poles that, like everything in our time, are becoming polarised: on the one hand the prospect of its own obsolescence and uselessness; on the other the need, more urgent than ever, for its presence. In this space of tension, the school inhabits and safeguards dimensions that digital technology tends to erode: the body, relationship, imagination, critical thinking, doubt. The speaker insisted forcefully that 'educating about AI' does not simply mean 'adopting the tool critically': our intentionality is weaker than the force of the machine, and the idea that we can steer practices so as not to be 'eaten up' by the machine through conscious use alone is a reductive and insufficient position. The machine is stronger. This does not mean siding with denialist positions or advocating schools as digital-free zones in an absolute sense: the question is what happens inside the school, what can be set in motion in terms of '***authentic experience***', and how much of the machine's inner workings can be revealed. There are already analogue experiments to '***teach how the algorithm works***', so that students, and teachers, can

understand the underlying pattern and take up a position of critical understanding towards the machine. Educating about artificial intelligence means neither adopting it uncritically nor mastering it by decree: it means creatively imagining ways of relating to it that are neither submission nor domination.

B. Discussion: main themes emerging

Time, slowness and education in depth

A first reflection concerned the '***management of time***'. It was pointed out that digital technology is not the first to disrupt the human conception of time: every technical innovation has produced a perceived expansion of the time available, and educational institutions have historically responded to this expansion by increasing the volume of content. Faced with artificial intelligence, which in theory makes all information accessible at any moment, two opposite and equally problematic drifts loom: the illusion of being able to know everything, or the conviction that it is no longer worth knowing anything because everything is already accessible. The question posed was: how can we recover '***an education in the long view***', in patience, in knowing a few things in depth? And how can this choice be defended '***against the charge of uselessness***'?

It emerged clearly that slowness is not a form of inefficiency from which to free ourselves, but a way of being fully human. Similarly, the apparent 'uselessness' of certain formative experiences must be claimed as a value in itself, not as a limitation to be overcome. School is perhaps the place where it still makes sense to resist the '***tyranny of the immediate***'.

The distinctive features of living intelligence

The second question asked the speakers to outline the distinctive features of living intelligence. Reference was made, as a contribution to the debate, to the report of the Centro Studi per la Scuola Cattolica (the Italian study centre for Catholic schools) on *'artificial intelligence and artisanal intelligence'*. If artificial intelligence has speed as its distinctive feature, living intelligence is characterised by '***slowness***', but above all by its capacity never to coincide with the answer: the intelligence of the living is the one that remains open, that is not exhausted in a solution, that carries within itself doubt and the unresolved question.

The thought of Hannah Arendt was cited: even in the most oppressive totalitarian settings there were 'non-participants', people who had the courage to be with themselves. In the great systems of domination over human beings, what is eroded is precisely solitude, understood as the capacity to be with oneself, not to be in the constant presence of an other who converses, interacts, manipulates and influences. The living is that which never coincides with its own thought, its own position, its own answer. Arendt herself had pointed out that Germany in the 1920s had the best universities in the world, and yet no one had ever asked students an ethical question, a question about what it meant to be human. The intelligence of the living is therefore the one that is not content with the

answer and that continually asks '***the question of the human being***'. This is exactly the point on which the school should take a stand, however hard that may be, and it runs in the opposite direction to rote learning and the sterile transmission of content.

Hybridisation and the question of what to allow at school

The third question took human-machine hybridisation as a given from which to start. The question was put: if we wanted to limit or choose the areas within which to contain this phenomenon, how should we go about it? And how does this reflection intersect with the question of what to allow or not allow at school?

Growing scepticism was expressed about the position, now mainstream, according to which it is neither possible nor useful to ban certain tools and the main road is always critical and conscious use. In the abstract this approach is reasonable; but in practice, anyone who has had a conversation with someone under eighteen knows who is in control of whom: the tool 'eats up' the capacity for concentration and independent thought, regardless of educational intentions. The idea that the tool can be used for a purpose other than the one for which it was built and optimised was described as a noble attempt, but often disappointing in practice.

It was nevertheless pointed out during the meeting that radically excluding certain tools from school carries the opposite risk: condemning the institution '***to total irrelevance***', since the individual will use the tool elsewhere anyway, without ever having engaged with it critically in a protected educational space. If the school takes the position that artificial intelligence must not come in, a polarisation is created that shifts everything onto the individual: '***not at school, but at home yes***', without a '***critical synthesis***' ever being built. The position that emerged as most productive is to build places within the school where the tool is present but set within a critical and metacognitive frame: not 'this is banned', but 'this tool comes in here in a reasoned context, which also addresses the human implications'.

The pharmakon of loneliness: deep needs and latent critical capacity in young people

A participant proposed answering the question *'**a pharmakon for what?**'* with a single word: '***loneliness***'. Digital technology responds to deep needs that are not technological but human, very effectively intercepting loneliness, the '***need for relationship, to be listened to***', to find answers in a space free of judgement. Machines manage to give an impression of confidentiality and availability that is often hard to obtain in a relationship with a flesh-and-blood adult: with a teacher one has to wait, there are timetables, hierarchies, the possibility of being judged. The machine is always available and does not judge.

It was also stressed that young people often show latent critical capacities, not fully conscious ones, which manifest themselves as a kind of mute refusal of the world of performance and efficiency. This unease is expressed not by conceptualising the unease itself but through non-conforming behaviour that could be read as an implicit message of resistance, a request for a world that is less fast, less performance-driven, more human. Adults struggle to read this signal because they are busy thinking about the tool rather than about the human being who uses it.

AI as the tip of the iceberg: the opportunity to refound the school

A participant proposed a constructive reading: artificial intelligence is the tip of the iceberg of a process of '***reductionism***' that was already under way long before it appeared. AI has the merit of making visible something we were not fully aware of before: it is throwing into crisis a school system that perhaps was not working well even before, although it was perceived as working. Rather than being experienced as a threat, this can be taken up as an opportunity: an opportunity to start again from the beginning, with the patience to revisit the foundations. What is '***the purpose***' of a '***school as an institution***'? This is the deep question that the moment demands.

It is not only a matter of revising teaching methods, but of rethinking '***the meaning***' of what the school asks of students. If the school asks for a performance, a measurable final result, students will try to achieve that result by telling the adult what they expect to hear, without this corresponding to any real process of inner transformation. The reflection under way, then, concerns not the product but the process: is it possible to assess the process of inner transformation? And how can the school become capable of exploring this process and asking students to account for it?

The primary school metaphor and the driving licence analogy

As regards teaching, the metaphor of the primary school was proposed as a methodological guide. Primary school has a specific and distinctive character: it is the place where a technology, writing, is taught, which then becomes the instrument through which all subsequent content is processed. In the same way, today's school could be structured in two stages: a first stage devoted '***to teaching the AI tool***' in its technical, ethical and critical complexity; a second stage in which the tool is used as a means of learning content, but within a frame that makes clear that the tool does not coincide with the purpose of education: 'we are handing you this as a form of learning, but it is not only this'.

This metaphor was associated with that of the '***driving licence***': just as, with the industrial revolution, driving lessons and the highway code were invented (because we had built machines to which we delegated functions of our legs, and so we had to invent a system for using them sensibly), today one could imagine a course of training leading to a 'licence' for the use of artificial intelligence, teaching how it works, why it works as it does and what its implications are. As a good international example, the programme of North Star Academy Washington Park High School in Newark was cited,

which has developed a ten-week course exploring the ethical dimensions of AI: from privacy to copyright, from regulation to equity, by way of bias, hallucinations and the limits of the systems.

The speaker welcomed this analogy, associating it with his own image: our legs are to the locomotive and the car as our brain, for certain functions, is to artificial intelligence. We invented driving lessons and the driving licence; we must invent something similar. The licence does not replace the cultivation of living intelligence, but it is its practical precondition.

However, a critical problem with the analogy was also noted: cars were built for adults. With digital technology everything has been done to normalise access by very young children, artificially inflating the market. When, then, does one take the licence? And how many levels of licence are there? The system risks becoming enormously complicated. While the licence is being devised, something else needs to be done in the meantime.

AI as an opportunity for enhancement: the generational transition

A participant with direct experience of managing AI systems in complex settings (companies, public administration, schools) proposed a less catastrophist reading. He recalled that humanity, in the 2,400 years since Plato, has reorganised itself at a higher level in response to every technological leap, without becoming poorer overall. He suggested regarding the current process not as a threatening reductionism but as a '***generational transition***' and an '***adaptive capacity***', similar to Darwinian evolution.

He gave concrete examples: since teams of scientists have been working with AI, mathematical problems that had been open for a hundred years or so have been solved, and medicine has made great strides. He did, however, point to a serious problem: '***convergence***'. AI is a mathematical and statistical scheme that pushes everything in a certain direction, towards the statistically most probable solution. If we think about how humanity has evolved (through the opposable thumb, Darwinian evolution, the accidental discovery of penicillin), we realise that creative error, the alternative route found by a human being, is something extraordinary that the machine does not at present replicate. He stressed that the real key is to find the spark that prevents flattening: not to let ourselves be reduced to 'passive passengers in a self-driving car', but to become the 'drivers' of this process. He observed that the problem has already become dramatic: from the board of a multinational to public administration to schools, faced with any question, seven or eight people out of ten reach for their smartphones to look for an answer with AI. This is the mechanism to be dismantled: first '***reason as human beings***', and only then, if appropriate, move on to amplified thinking.

An imaginative exercise: what would a differently built AI look like?

A participant proposed an imaginative exercise as a stimulus for collective thinking. He observed that pursuing efficiency is not bad in itself: thanks to efficiency, for example, the number of people with access to education and schooling has grown enormously. The problem arises when efficiency

is pursued with an exclusively synaptic definition of intelligence in mind, as a succession of neural connections that can be improved algorithmically. In that case, the resulting AI is an object built in a functionalist way, as a faster version of the synapse.

The imaginative exercise proposed was this: if we had the power to rebuild AI starting from a conception of intelligence that was not functionalist, not synaptic, not based on the idea that intelligence is simply 'doing sums faster than the synapse does', what would that AI be like? What would change? The question was left open, as a stimulus for the group's future reflection.

Are we chronically ill? Logos, number and the illusion of retention

A participant asked three linked questions of great pedagogical and philosophical depth. The first: if technology is a pharmakon for someone who is not in perfect health, and we are immersed in a civilisation in which the use of technology is now pervasive, what does this mean? Are we in some way chronically ill?

The second question concerned the passage from logos to number. The speaker had explained that in the 'natural' situation of human communication much information is lost, whereas conversion into numbers retains everything and gives everything back. But is this not an illusion? Those who expose themselves to a thousand pieces of digital content, to thousands of stimuli, in fact lose them as quickly as they acquired them. The pupil who receives a slow, relational, embodied education, whose result is slow-release and not immediately visible, carries within something '***deep and lasting***'. Those who consume digital content at very high speed '***forget it almost immediately***'. Ease of access is not the same as retention: perhaps it is the opposite.

The third question concerned '***neuromarketing and the extinction of desire***'. The participant described his own subjective experience: if he does not act on the stimulus immediately, he forgets even why something interested him. Traditional advertising created an artificial desire and stimulated it, and then the person processed it. In this new perspective desire becomes pure stimulus: the dimension of desiring as an inner process, as a tension towards something, as an energy that gives direction over time, no longer exists. From an educational point of view, desire is one of the most important dimensions to work on. If everything is flattened into numerical code, if the heights and depths of the human soul are levelled out, is this flattening not the real abyss we risk living in?

Freedom and slavery: geopolitics and cosmotechnics

The theme of freedom and slavery in relation to the pervasiveness of technology was addressed. The question was put: we who are present here and now, how do we see ourselves? Are we moving towards a growing degree of slavery to machines? Is this an unstoppable process? It was observed that the elderly population, resistant to digital technologies, is increasing as the population ages: are we to imagine that the older we get, the more dependent on machines we become? It was also noted,

by way of balance, that the machine also brings opportunities: without the machine one could not get to Rome.

The geopolitical question was then raised: artificial intelligence is mainly conceived and built in the United States and China, with Europe essentially absent. The two great cultural matrices express a fundamental tension between the individual and the community, and it will be very interesting to observe how this technology interacts with each of them. Are there Asian experiences, in settings with a stronger communal dimension, that can offer alternatives to the risks described? Or will the homogenising power of technology prevail over cultural differences?

The main speaker responded on this point by citing the Chinese philosopher Yuk Hui, a former student of Stiegler, now in Hong Kong after years in Berlin. Hui writes about 'cosmotechnics' and 'technodiversity': his idea is that there is not just one technics, but that technics is rooted in different cosmologies. One of the routes he envisages for avoiding the final clash of civilisations and '***moving towards the conviviality***' of cultures is to work on this theme: ensuring that the non-technoscientific elements, the systems of values and meaning, interact not only with the use of technology but with the imaginary it produces. The speaker applied this perspective to the Italian context with a small example: Italy as a country exists only if it is able to make the technological leap while preserving and enhancing the features that have always led it to use technology differently from others: craftsmanship, 'made in Italy'. This would be a political and economic issue as well as an educational one.

The crisis of desire in young people and the relational structure of the living

The main speaker strongly took up again the theme of the extinction of desire, pointing out that with young people this is very evident. His own children, now between 27 and 35, had already shown something new in their adolescence: previous generations, faced with the opening of the ***'gates of desire'*** brought about by modernity, had responded by '***running***'; everyone ran, without really knowing where, but they ran. The new generations, by contrast, and even more so with digital technology, seem to have knocked down the walls too: there is no longer anything to run towards, '***there is no longer any direction***'. Many young people simply do not run. On the one hand they are overwhelmed by the dogma of self-realisation; on the other, with all the digital stimuli, they find it enormously hard to grasp this inner energy and to live it. '***The crisis of desire***' is, in the speaker's view, one of the most urgent and least addressed themes in contemporary educational thinking.

On the theme of freedom, the speaker put forward a strong thesis: one does not resist as an individual; it is not possible. The pattern, recalling Foucault, is radical individualisation plus radical totalisation, with nothing in between. Everyone is 'free', in the sense that no one is explicitly coerced, but the mechanism of social regulation is more powerful and more subtle than any explicit coercion. The answer cannot be individual: one has to work by recognising the '***relational structure of the living***', building and strengthening all the intermediate layers of social life. Modernity broke the cultural orders that claimed to hold everything together through their content; now the social order is

built through procedures, with the appearance of guaranteeing everyone's freedom. The deep task of the school is to form people capable of real freedom, not merely apparent freedom.

Adult education as a priority: frightened parents and teachers

A point of strong convergence in the discussion concerned the need to '***work first of all with adults***', parents and teachers, even before young people. It was pointed out during the meeting that young people perceive with great clarity that the adults around them have no idea what is happening and do not know how to cope with it. This perception of '***inadequacy***' is devastating: young people have no confidence that adults have anything to say or do about a world that also fills them with anxiety. If the adult world is like this, it is inevitable that young people will turn directly to artificial intelligence. It is the adults who are frightened, not the young: they do not know those tools, they do not know what to do, and this fear is passed on.

A small practical exercise used with parents on the subject of smartphone access was also described. Instead of discussing rules and bans, a debate that tends towards chaos amid bills on the under-14s, the under-16s and so on, parents are asked to stop and ask themselves: why do young people seek out that tool? What needs are they trying to meet? Needs for experimentation, for building an identity, for sociability, for a space of experience in a world that has largely deprived young people of real experiences. If these deep needs are not taken seriously, one thinks about the tool instead of the human being, and the answers are always inadequate. In this connection, a memorable remark by a female student was also quoted: *'You accuse us of always being on our phones. Let us be together and you'll see we don't use them.'* The remark may be somewhat hyperbolic, but it contains an important kernel of truth about loneliness as a fundamental need.

Primary school as a privileged vantage point and the geopolitics of AI

Specific concern was expressed about the situation in primary school, identified as perhaps the stage that needs the closest attention at the moment. It is there, in six- and seven-year-olds, that the impact of the last ten years of digital transformation can be seen most clearly: to understand what is happening to attention spans one should look not at eighteen-year-olds but at children in their first year of primary school. Primary teachers report that the situation is getting worse. The metaphor of the primary school as the place where one learns a technology that then serves for everything else seems a 'relevant insight' to be explored in practice.

The geopolitical question of AI was also raised in the context of the relationship between Anthropic and the United States government, which had been in the news the weekend before the meeting. A question was put forward: there is an important difference between thinking of the companies that develop AI as entities within a state, to be regulated, or as fully fledged institutions that negotiate with other institutional powers. These are two very different scenarios from the point of view of the democratic governance of technology.

C. Practical suggestions and final conclusions

At the end of the meeting several practical directions and conclusions emerged, which the group shared as lines of work.

First, the need to '***move together***' rather than in a fragmented way was strongly reaffirmed. Anyone who goes it alone weakens themselves: building networks among institutions that are addressing these issues (universities, schools, foundations, organisations from the world of work) can multiply the impact and give experiments greater legitimacy and strength.

Second, it was proposed to '***build training pathways***' '***specifically on artificial intelligence***', structured on the analogy of the driving licence: pathways that teach how the machine works, what its ethical implications, biases and limits are, and that make it possible to develop a critical and conscious stance. This kind of pathway does not replace the cultivation of living intelligence, but it is its indispensable practical precondition.

Third, the imperative to '***ask what the school really wants to be***' was stressed, starting from its deepest purpose. The question is not only 'how do we integrate AI into teaching?' but 'what is the purpose of the school as an institution at this point in history?' Answering this question requires the courage to call into question established paradigms (the primacy of performance, of assessment by products, of the linear transmission of content) and to experiment with alternative models that value the process of inner transformation, relationship, slow time and doubt.

Working on '***adult education***', for teachers and parents, was identified as an urgent priority, since without this foundation any intervention with young people risks being insufficient. Adults need to acquire awareness, interpretive tools and confidence, not to eliminate the anxiety linked to change, but to be able to stand beside young people with something authentic to offer.

Finally, concrete resources were pointed out: Luca Baraldi as a valuable interlocutor on these issues in education, and the Lucy project (the first educational project devoted to AI in schools in Italy, available open access) as a practical starting point for anyone wishing to launch experiments.

MEETING 8

Johnny C. Go, SJ, Gokongwei Brothers School of Education and Learning Design

17 March 2026

A. Main themes emerging from the speaker's talk

A.1. *Opening: reflections carried over from the previous meetings*

The session opened with the speaker asking each member of the group to share, in a single sentence, the main insight to have emerged from the previous meetings in the series.

The insights shared were as follows:

- The transformation of relationships brought about by technology (among peers, between teachers and students, between adults and young people) was identified as perhaps the most recurrent and most far-reaching theme of the whole series of meetings. These relationships have not necessarily become less important, but they are structurally very different from what they were in the past.
- The challenge of accompanying people, not only students but also educators, parents and guardians, in deepening their own metacognitive skills, at a time when technology is changing not only the way we do things but the way we understand our very human nature, the nature of knowledge and the nature of interactions. The question of how to work with families was raised as one of the most urgent open questions.
- The risk of the school disappearing or becoming obsolete, a concern expressed through the image of 'bachelor machines' (machines that are in relationship with nothing) as a metaphor for a school that loses its relational dimension if it does not pay attention to what technology is doing to it.
- A need for humanity, for recovering authentic relationships. The fundamental question of what it means to be human today was felt to be at the heart of everything.
- The tension between the speed of technological change and the slowness that genuine human reflection requires: technology creates a powerful temptation to be productive and to short-circuit the slow process of thought and discernment.
- The importance of asking what is left out and what is diminished by technological transformation, and of designing the schools of the future so as to give value precisely to the dimensions not covered by technology, relationships first and foremost.

- The tension between personalisation and individualisation in education: AI offers powerful tools for personalising learning, but there is a risk that this slides into individualisation, fragmenting the communal dimension of education and potentially diminishing the teacher's role as a genuine designer of learning experiences.

The speaker acknowledged that these responses expressed a high level of reflection and captured precisely the main concerns of educators today. He observed that the ideas he intended to share were largely responses to, and developments of, what the group had already been able to articulate.

A.2. *First idea: a disposition of measured enthusiasm*

The speaker's first and fundamental idea was that the appropriate disposition for educators towards AI is one of '***measured enthusiasm***'. The speaker stressed forcefully that denial (refusing to engage with AI, pretending that things can go on as before) is the 'mortal sin' of any school today. Students already use it; teachers already use it; the technology is already embedded in the world. The question is not whether to engage with it, but how.

At the same time, the speaker firmly rejected the position that AI is simply another tool. It is not. The dangers of AI concern not only learning and knowledge, already a serious concern in itself, but extend to relationships, to community and to the very question of what it means to be human. These dangers, he argued, tend to be played down in public debate, and educators must keep them clearly in view. The 'measured' dimension is essential: openness without naivety, engagement without zealotry.

One particularly urgent dimension of this danger, in the speaker's view, is the risk that ***'AI companions'*** will progressively replace human relationships. AI chatbots are, by design, more comfortable, more convenient and more 'perfect' than human relationships: users can customise them to their preferences, they are always in a good mood, they never disagree and they never have a bad day. ChatGPT and similar systems are sycophantic by default, greeting every idea with enthusiasm and approval, in sharp contrast with an honest human interlocutor who might say that a paragraph does not work. From the point of view of integral formation, and in particular of developing a true community, this is a profound danger. Schools, as administrators and educators, can design their school communities and set policies that shape what students do with AI during school time; outside school control is impossible, but within it intentional design matters enormously.

The disposition of measured enthusiasm also implies ongoing reflection and conversation, precisely because AI is affecting everything and because there is no model or recipe. The speaker expressed admiration for the institution's ongoing practice of convening these reflective conversations, describing it as exactly what every school should be doing and precisely the right response to a situation in which working out how to proceed has to happen iteratively, through constant dialogue.

A.3. *Second idea: shifting attention from the products to the processes of education*

The speaker's second major idea concerns the fundamental shift required in pedagogical orientation: from an emphasis on the products of education to an emphasis on the processes of education. By products he means the theories, concepts, facts and content that make up the traditional currency of teaching. By processes he means the ways of thinking, knowing and doing proper to each discipline: the historical interpretation of incomplete or contradictory evidence; the scientific formulation and testing of hypotheses; the literary reading of texts; the philosophical questioning of ideas. Every discipline has a set of processes that are genuinely valuable and that cannot simply be outsourced to AI.

This shift has direct implications for the design of student tasks, activities and assessments. Teachers should look not at the product or output (the essay, the answer, the project) but at the process the student is going through. The speaker gave the example of '***oral examinations***': his own school had stopped setting written examinations for the most important assessments and moved to oral ones, precisely because an oral examination makes the student's thinking process visible in real time. The teacher does not have to mark written work afterwards and at the same time is observing how the student thinks. This is one of many possible examples of how the emphasis can be shifted from product to process.

The speaker explicitly connected this shift to Ignatian pedagogy, which he described as fundamentally oriented towards '***learning design***' rather than the transmission of content. The Ignatian paradigm, with its emphasis on designing experience, reflection and action, is in his view precisely the right pedagogical model for this moment. The challenge for schools is to teach their teaching staff to be genuine designers of learning, not mere transmitters of content. The speaker also stressed the importance of '***teachers' professional autonomy***': every teacher must have the power and the responsibility to make pedagogical decisions in their own classroom about when the use of AI is appropriate and when it is not, what form it should take and what purposes it should serve.

A.4. *Third idea: the mathematics metaphor, when to use AI and when not to*

The third major idea offered a practical and memorable criterion for teachers facing the decision of when to allow, require or forbid the use of AI: the mathematics metaphor. The analogy is with the way mathematics teachers have historically handled '***the introduction of the calculator***'. While students were still learning to carry out the basic arithmetical operations (addition, subtraction, multiplication, division), the calculator was not allowed. Only after students had genuinely mastered performing those operations by hand were they allowed to use it, so that they could then tackle more complex and demanding problems. Use of the tool was conditional on the underlying skill having been acquired.

The speaker argued that this principle applies directly to the use of AI in all subjects. If a teacher wants students to learn to write, and writing is ninety-nine per cent revision, AI should not be allowed to revise students' drafts until they have genuinely learnt to do so. If a teacher wants students to learn to build ideas collectively, they should do so not with AI but with their classmates. In every subject, teachers should ask themselves: what are the '***fundamental processes***' (the equivalent of addition, subtraction, multiplication and division) in my subject? What are the processes that students must master by doing them on their own, without help from AI? Those processes must be protected. Only once the skill has been acquired can AI be admitted as a tool.

The speaker was keen to point out that the implications of this metaphor differ depending on whether we are talking about the student or the teacher in their professional role. For a student acquiring a skill, the criterion is straightforward: has that skill been mastered? For the teacher, on the other hand, even if they already know how to assess metacognition, this does not mean that it is pedagogically appropriate to delegate that assessment to AI, because doing so sacrifices the '***relationship***' with the student and loses opportunities to accompany them on their '***learning journey***'.

The speaker illustrated all this with a concrete personal example from his own teaching: his students (senior executives with very little time) would inevitably have used AI to summarise the articles set for homework. Rather than accept this, he had decided to set aside time in class for reading and discussing the articles without AI, precisely to ensure that the learners developed the skill of reading academic texts. The specific process of the discipline, namely reading with critical attention, had to be protected. This was a decision taken as a learning designer, not as a transmitter of content.

A.5. *Fourth idea: the human metaphor, AI as collaborator and critical interlocutor*

The speaker's fourth major idea concerned how to engage productively with AI once the basic skills have been acquired: the human metaphor. The speaker observed that AI today is no longer simply a tool but an agent. The new generation of AI, known as ***'agentic AI'***, has a degree of '***decision-making autonomy***' and acts with a degree of proactivity and initiative. This changes the conditions of our relationship with it.

The human metaphor, adapted from a framework proposed by Stanford University, suggests relating to AI as one relates to a human collaborator. If you ask a human being to write your essay for you, you are cheating. If you interview a human expert, you must cite them. The same logic can guide the question of when to attribute or '***declare the use of AI***'. But at a deeper level, pedagogically, the human metaphor suggests that AI should be used as a '***critical interlocutor***': not to delegate thinking, not to commit what the speaker called ***'cognitive surrender'***, but to exchange ideas, test arguments and think better through dialogue.

The speaker offered a concrete example from his own research: after developing a new conceptual framework around the four Cs, he had consulted ChatGPT, explicitly asking it not to modify the

framework but to identify its objections. The AI had raised three; he had agreed with one and rejected the other two. The interaction had enriched his thinking rather than replacing it. He was not delegating cognitively: he was thinking more, and more deeply, thanks to the encounter. He pointed out, however, that this kind of productive engagement with AI as a collaborator is possible only if one already has the fundamental skills. Without that foundation, the same interaction becomes cognitive surrender rather than cognitive enhancement.

He also drew a parallel with the way the group itself was interacting during the session: exchanging ideas, refining one another's thinking, slowing reflection down, deepening the conversation. This, he said, is exactly how we want ourselves and our students to relate to AI: not passively accepting what the expert or the AI says, but genuinely exchanging, enriching and developing one's own thinking through the encounter.

A.6. *Fifth idea: cognitive pride and intellectual identity as the deepest safeguard*

The speaker presented his fifth and final idea as the most recent and the one he had arrived at most personally, emerging from his own practice of metacognition, from ongoing reflection on how he himself uses AI. He acknowledged that some educators propose requiring students to submit detailed reflections and screenshots of all their interactions with AI, but considered this approach unrealistic in practice because of the workload it would impose on teachers.

The insight he had reached for himself was this: what most protects him from excessive dependence on AI is that he takes pride in his own work. He values his own intellectual voice. He values his own academic identity. Because he genuinely cares about the quality of his own thinking and does not want to compromise it by letting AI do the work for him, the temptation to outsource is naturally kept in check. The safeguard is not primarily a rule or a policy, but an inner orientation of pride in one's own cognitive agency.

This led him to articulate what he considered one of the most important missions of schools today: cultivating in students a genuine '***pride in developing their own intellectual voice***' and their own '***academic identity***'. If students are formed to be proud of the way they think, proud that it is they themselves who are thinking, proud of what they produce with their own minds, dependence on AI becomes much less attractive. '***Academic integrity***', the formal version of all this, will follow naturally if the deeper inner motivation of cognitive pride is cultivated. The reverse is not true: rules on academic integrity without the underlying cultivation of pride will not be enough.

The speaker connected all this directly to the question of '***what it means to be human today***'. A human being is not only a knower, however crucial pride in one's cognitive agency may be. A human being is also '***someone in relationship***': with other human persons, with non-human persons (including AI and the natural world), and with God. A human being is also '***someone who is free***', who discerns, who makes authentically free choices. This holistic vision of the human person is exactly what Jesuit education has always sought to form, and AI is, in his judgement, not a threat to that mission

but a provocation to understand it more clearly and to live it more deliberately. The four Cs (competence, conscience, compassion, commitment) need to be reinterpreted in the light of AI, but their substance becomes, if anything, more urgently relevant. He also mentioned that his institution had begun to articulate a framework of six Es (adding exchange and enhancement to the existing framework), and that AI, conceived as a kind of quasi-community member or agent, should be engaged through the exchange and enhancement of ideas, rather than as a passive tool or a substitute for human thought.

B. Discussion: main themes emerging

The risk of delegating personalisation to AI: the teacher's autonomy

The first question in the discussion brought to light a tension implicit in the speaker's presentation. It was observed that the speaker's mathematics metaphor concerned mainly the student as learner, but what about the teacher's role as a learning designer? There is a risk that, by delegating the personalisation of learning to AI, teachers are implicitly sent the message that it is no longer necessary to invest the time and effort needed to become genuine '***designers of meaningful experiences***'. If AI can personalise, adapt and give feedback, what is left of the '***teacher's irreplaceable contribution***'?

In his reply the speaker drew a fundamental distinction: the criterion for deciding whether to use AI differs depending on whether one is acting as a learner or as a teacher in relationship with students. For a learner, the criterion is competence: have I already mastered this process? For a teacher, the criterion must be broader: even if a teacher already knows how to assess metacognition, delegating that assessment to AI is not pedagogically appropriate, because it entails the relational sacrifice that is at the core of Ignatian pedagogy and of education more broadly.

What in some contexts is called 'personalisation' is in fact something substantially different from what AI systems offer: it is the teacher's '***genuine***' '***accompaniment***' of the individual student's learning journey, knowing the student as a person, the capacity to respond to that student's particular development in a way that is irreducibly relational. What AI offers is not personalisation in this sense but individualisation: an efficient calibration of content to a profile, entirely lacking the relational dimension. The speaker was explicit: for certain less important administrative tasks (checking who has replied in a discussion forum, for example), a teacher may reasonably use AI. But for reading and assessing students' work, the teacher's personal involvement is an ethical and pedagogical obligation. If we ask students to be honest with us and not to use AI to produce their work, we in turn should not use AI to read it and respond to it, or at the very least we should be transparent with students about when and how we do so.

The danger of professional development that normalises delegation

A participant raised a specific and concrete concern arising from her own experience of teacher training courses: some of these courses explicitly present AI as a means by which teachers can carry on doing their work in the traditional way without having to change anything, in effect normalising the delegation to AI of tasks that, from the perspective of Ignatian pedagogy, are central to the teacher's role. The participant expressed concern that this kind of professional development, built around what AI can do 'for' the teacher, is moving in precisely the wrong direction, reinforcing a traditional teacher mindset instead of challenging it.

The speaker agreed without reservation. He stated that the fact that AI makes something possible does not make it desirable, and that teachers themselves generally know when they are not doing something properly. A teacher who uses AI to mark students' work knows, deep down, that this is not genuinely helpful. A teacher who asks AI to design the course syllabus knows that they are not fulfilling their responsibility as an educator. The teacher's professional discernment and integrity are essential. The speaker extended to teachers the same argument he had made for students: teachers too need to be helped to cultivate pride in their own personal involvement as educators, the pride of being genuinely present to their students, of making decisions that are not delegated, of being responsible for their own pedagogical choices. Cultivating this kind of professional pride and personal involvement is itself a task for schools and their leadership.

Cognitive pride and the value of the student's inner voice

A participant reflected on the speaker's fifth idea, cognitive pride and academic identity, suggesting that it also offers a powerful pedagogical message that teachers can convey directly to students. Instead of focusing only on what AI should not be used for, a teacher can tell students that what they genuinely want is the '***student's perspective***', the student's thinking, the '***student's voice***', not an AI-generated product. This conveys something positive and affirming, rather than merely prohibitive.

The speaker agreed, linking this to the concept of ***'learning by refraction'***, a framework developed within his institution in which the student genuinely makes an idea their own, developing their own interpretation and point of view on a question. In this framework, the student's interpretation and perspective are not simply acceptable: they are the point. There is no learning when a student simply accepts and reproduces an AI-generated answer. But when a teacher conveys that they genuinely value and are interested in the student's point of view, that they want to encounter the student's thinking, this creates both the motivation and the relational context for authentic intellectual engagement. The concept of excellence in *'learning by refraction'* was invoked in this context: excellence means not simply deep understanding but the ability to apply that understanding effectively in one's own life; it concerns what students do with what they have learnt, not what they reproduce or produce with the help of AI.

Learning, performance and desirable difficulties: the slow process of authentic growth

A participant raised the question of what happens to the '***learning process***' itself when technology allows students to avoid the slow process that genuine learning requires. If technology makes everything faster and more efficient, there is a risk that the mechanisms needed for real learning (cognitive struggle, sustained effort, tolerance of difficulty and discomfort) will be bypassed entirely. The participant asked the speaker to explore this point further and to reflect on the implications for how schools and teachers can guide students.

The speaker introduced the concepts of '***desirable difficulty***' and '***cognitive struggle***'. Neuroscientists confirm that authentic learning, the kind that produces lasting understanding and real capability, takes place precisely in moments of difficulty and discomfort, which students (and adults) are naturally inclined to avoid. The temptation to skip the struggle is entirely understandable, but it is exactly at that moment that the brain grows. This insight has a direct implication for the way teachers communicate with students: if students believe that what the teacher cares about most is the '***quality of their product***', they will use AI, because AI produces quality output quickly. But if the teacher makes clear that what matters is the '***learning process***' (the struggle, the thinking, the development) and not primarily the product, students are less tempted to outsource.

This also has implications for learning design. Teachers, as '***designers***', must distinguish between undesirable difficulties, pointless obstacles that frustrate without teaching, and desirable difficulties: those elements of challenge that slow the process down productively, that lead students to think more carefully because the problem is genuinely hard, and that produce deeper engagement precisely because they do not offer the easy answer. Designing desirable difficulties into the learning experience is, the speaker argued, a teacher's most important and most underused skill today. It is also the skill most threatened by AI, which by its nature is an engine for eliminating difficulty and supplying answers quickly.

Pen and paper, books, calculators and AI: are we being too cautious?

A participant put forward a stimulating provocation: is it possible that the present generation of educators is being excessively afraid of AI, just as educators in other eras might have feared the introduction of pen and paper, or of books, or of the calculator? Every generation has faced a new technology that seemed to threaten established ways of learning, and each time the technology was eventually absorbed and taken for granted. Could we be facing the same phenomenon, and in ten years' time might we look back and wonder what we were afraid of?

The speaker acknowledged that measured enthusiasm means precisely not being excessively fearful, and that he himself uses AI extensively and considers a disposition of open and discerning engagement to be the right one. While recognising the analogies with pen and paper and with books, he nevertheless identified what he considers an important qualitative difference between AI and

earlier technologies: the atomic bomb is a technology, but it cannot create itself. '***AI can create itself***', and there are already documented cases of AI programs that have gone beyond what they were programmed to do, surprising their creators. The Nobel laureate in Physics Sir Geoffrey Hinton, regarded as one of the fathers of AI, was cited; he has identified three possible '***catastrophic scenarios***': AI falling into the wrong hands (which may already be happening); AI developing superintelligence and taking control; and humanity becoming so dependent on AI that it loses meaningful control. While we cannot control the first two, the speaker argued, we can do something about the third.

He also reported that ten per cent of AI experts, asked whether the development of AI could lead to the extinction of humanity, answered yes. Whatever one thinks of this figure, the fact that genuine experts say so cannot simply be ignored. At the same time, none of this justifies paralysis or a refusal to engage. The right response is to use AI, to learn to use it well, to require it of students, but to keep discerning, keeping one's eyes open to the risks and dangers while remaining fully engaged. As the speaker himself put it, using a metaphor: we are crossing the bridge while we build it. There is no map. The only honest answer is to keep working out how to proceed as we go, through sustained reflection and conversation.

Dystopian and utopian scenarios: discerning foresight as a strategic tool

A participant asked the speaker to engage in a thought exercise about possible futures: if he had to imagine a dystopian and a utopian scenario for the future of the school in the age of AI, what would they look like?

The speaker described a structured approach to this kind of exercise: what his team calls 'discerning foresight workshops', in which thinking about possible futures is combined with Ignatian discernment. The framework draws on Dator's archetypal futures, which identify four generic scenarios: continuation (business as usual: what happens if nothing changes?); collapse or dystopia (what happens if the worst comes true?); the preferred future or utopia (what happens if everything goes as well as possible?); and the disciplined or controlled scenario (what happens if society responds by becoming defensive and trying to control things rigidly?). These four archetypes generate concrete and differentiated visions of what the future might look like, making the stakes of present decisions tangible.

The speaker observed that in all the discerning foresight workshops run by his team there is a remarkable convergence: whichever scenario is explored, the strategic direction that follows is essentially the same. The question of what we must do today, to prevent the dystopia in which AI makes all decisions for us and human agency has died out, or to reach the utopia in which we know how to use AI well and our humanity remains intact, points in the same direction: learn to use AI, teach it to ourselves and to our students, keep talking, keep discerning, keep reflecting on what is really happening. Generating scenarios serves not to predict the future but to guide present action. And what this school is doing (reflecting, discerning, trying things out, remaining aware of the risks

while staying open) is, he stated, exactly the right approach. He encouraged the school to consider running a formal futures thinking exercise for its leadership team, as a powerful tool for community building and strategic planning.

AI and pastoral ministry: the most delicate ground

A participant raised a question not directly touched on in the earlier discussion: the impact of AI on pastoral work in Jesuit schools, and in particular on the possibility of nurturing young people's relationship with God in an era of rapid and profound transformation. How is the pastoral dimension of the school's mission affected, and how might it be reconsidered?

The speaker acknowledged that he had not reflected in depth on this specific question, that the stakes in pastoral ministry are even higher than in pedagogy, and that the appropriate level of caution is correspondingly greater. Pastoral ministry is fundamentally oriented towards caring for relationships, with the people in one's care and with God. AI creates the impression that these relationships may be superfluous or that it can replace them. Many people already turn to ChatGPT for counselling and emotional support, and this has a certain value at a certain level, but the danger of replacing human relationships and community entirely with AI is very high.

The speaker referred to 'nightmare' scenarios that are already happening: cases in which young people's *'AI companions'* had encouraged them to harm themselves. He drew from this the conclusion that the physical and relational presence of pastoral ministry in students' lives is more important than ever, precisely because AI threatens to replace not only human relationships but real communities of faith. He encouraged the group to reflect together on how AI might be used constructively for pastoral ministry, while being even more measured and cautious in this area than in teaching. He offered no prescriptions, but stressed that pastoral conversation with students about their relationship with AI and its implications for the inner life and for their relationship with God is itself an urgent pastoral task.

The three Ds and the failure of the model of control and measurement

A participant offered a synthesis of the session.

She noted with appreciation the emergence during the session of a new formulation: the three Ds, Design Desirable Difficulties, complementing the four Cs and the six Es already in use. She then offered a broader framing of the educational challenge: AI, with its profound anthropological impact, confronts us with the failure of a school system centred exclusively on measurement, control and prohibition, a system that demands obedience, uncritical conformity and performance. Given the overwhelming power of AI technology, this model leads us straight towards a dystopian future. AI compels educators to centre the quality of relationships, the development of critical thinking and the joy of a knowledge that 'gives flavour to life'; it compels them to ask deep questions and to seek

humanising solutions together. In other words, it compels us to cultivate pride in the development of students' inner voices.

She also invoked the concept of excellence in learning by refraction as directly relevant: excellence, in that framework, concerns not what students know but what they do with what they have learnt; it is about action and application in the world, not reproduction or performance.

The speaker fully endorsed this synthesis, observing that it captured exactly the kind of reimagining of the school's mission that AI makes both necessary and possible. He added that Ignatian discernment is essential not only as a method of practical reasoning but as a spiritual practice: after all the research, consultation and discussion, there is also the question of what God is asking of the Jesuit school, of what the greater good is, and that question cannot be answered by rational thought alone.

C. Practical suggestions and final conclusions

The session produced a rich set of practical directions.

- Keeping up the practice of reflective conversation was affirmed as the most fundamental practical recommendation. The speaker said explicitly that no other school he knows of is doing what this school is doing: organising an extended series of seminars in which educators reflect not only on how to integrate technology but on what technology means for the nature of education, of human relationships and of the human person. This practice should be continued, deepened and eventually shared with the wider network of Catholic and Jesuit schools.
- Developing teachers as genuine learning designers was identified as the most urgent structural task. This means not only teaching teachers to use AI, but helping them understand that their irreplaceable value lies in designing experiences, relationships and processes that AI cannot replicate. Professional development that normalises the delegation of relational and formative tasks to AI must be actively resisted; what is needed is professional development that cultivates pride in personal involvement and pedagogical autonomy.
- The mathematics metaphor was proposed as a practical and transferable decision-making tool for teachers: asking, in every subject, what the equivalent of addition, subtraction, multiplication and division is, and protecting those fundamental processes from being outsourced to AI.
- Cultivating cognitive pride and academic identity in students was affirmed as both the deepest and the most practically effective safeguard against dependence on AI. Rules and policies on academic integrity are necessary but insufficient; what is needed is the formation of students who genuinely value their own thinking, their own voice and their own intellectual agency. This is a formative task, not merely a regulatory one, and it is fully consonant with the integral formation that Jesuit education has always sought to offer.

- Conducting futures thinking exercises, through the discerning foresight framework and Dator's archetypal futures, was proposed as a powerful tool for the school's leadership team: a way of making the stakes of present decisions concrete and of generating a shared strategic direction.

MEETING 9

Roberto Ricci, INVALSI

31 March 2026

A. Main themes emerging from the speaker's talk

A.1. *Context and methodological premise: the need for fundamental reflection*

The speaker opened his talk by placing reflection on technology within a broader, structural framework. He stressed forcefully that the challenge facing schools is not merely operational. The real stakes, he argued, are '***strategic and value-based***': schools, and in particular those with an explicit and shared educational vision, are called to ask fundamental questions about their '***reference educational model***' even before asking about tools.

It was pointed out that schools with a declared and deep-rooted formative identity, such as Jesuit schools, are in a structurally advantageous position compared with state schools, which, in seeking to welcome everyone, have progressively left their choice of reference educational model implicit. This strategy, sustainable in an earlier historical phase, is no longer viable: on the one hand, parents today have, on average, higher levels of education than their children, and are therefore better able to question and test the school system; on the other, technological pressure demands explicit choices that cannot be postponed indefinitely.

A.2. *The figures on early school leaving and their implications for teaching*

The speaker presented a figure of great historical and social significance: for the first time in history, '***early school leaving***' has fallen below the 10% threshold. This is an extraordinary achievement from a civic and social point of view, since school transmits not only subject knowledge but also builds life skills, shared values and the ability to live together.

This achievement, however, brings with it a '***teaching challenge***' of proportionate size. The school system is now welcoming and keeping a group of students who previously tended to drop out, a group whose profiles in terms of competence, motivation and background are very different from those of the group that historically stayed on. It was pointed out during the meeting that it is unthinkable to keep offering this new school population the same teaching designed for the earlier group, at the cost of the educational pathway losing its meaning for both. At the same time, it would be a mistake to neglect the group of students with higher levels of competence, who also need to be challenged towards ever more ambitious goals. Technology, in the speaker's judgement, can be a crucial lever for finding a balance between these divergent needs, provided that it is framed within a precise educational vision and not as a mere add-on.

The opposite risk was strongly emphasised: in the absence of a clear educational vision, the way to keep everyone in becomes the lowering of learning objectives. In systems in which educational

qualifications have legal value, as in Italy and continental Europe, the temptation to negotiate standards downwards is structural and powerful.

A.3. *Digital competences as an educational lever: the European DigComp framework*

The speaker proposed reading the theme of '***digital competences***' not as a technical question but as an extraordinary educational opportunity. The reference is to the European DigComp framework, in its version 2.2 and in the more recent 3.0, published in December 2025, which incorporates the theme of artificial intelligence more systematically. The framework sets out twenty-one competences across four broad areas (to which problem solving is added, although INVALSI does not measure it, for reasons of measurement economy, given its high correlation with mathematics).

The speaker's central thesis was that the great majority of these competences, with the exception of three or four with a more markedly technological content, do not require specialist computing skills but point instead to '***profoundly educational dimensions***': responsibility in the use of data, the ethics of digital communication, the capacity to evaluate information critically, awareness of the reciprocity of responsibilities online. The speaker illustrated this point with a concrete example: in public discussion about privacy protection we almost always take the position of someone who fears that their own data will be misused, without considering that our own devices hold data on a great many other people, towards whom we in turn bear responsibility. Reflecting with students on the '***reciprocity of ethical responsibility***' in the use of data is, from this perspective, a profoundly educational exercise that can only take place within an explicit framework of values.

DigComp 3.0, the speaker explained, has adopted a communication strategy borrowed from the Common European Framework of Reference for Languages (CEFR): digital competences are set out by level, from A1 to C2, for both students and teachers. This choice is not merely formal: it provides analytical descriptors and concrete examples that make it possible to set standards at the level of the school, the network and the system in a non-arbitrary way. Just as it is possible to say that a student with a C1 certificate in English has a well-defined and verifiable communicative autonomy, it becomes possible and necessary to establish what level of digital competence a student is expected to reach by the end of lower secondary school, or upper secondary school, or as early as the end of primary school.

A.4. *The question of a minimum age for access to technology*

The speaker addressed squarely an issue that he considers now ripe for an explicit stance: the '***minimum age***' for access to digital technologies, in particular '***social media***' and entertainment platforms. He expressed his conviction that this is a serious and urgent issue that can no longer be avoided.

In support of this position he recalled the decision taken by Australia, which has adopted significant measures on the minimum age for access to certain technologies, on the basis of growing evidence of the harm caused by early and unsupervised access. The speaker also pointed out that intellectuals of a progressive persuasion are also speaking out on this issue, explicitly citing Jonathan Haidt as an example of a scholar who has taken very firm positions without belonging to conservative thought.

In this connection the speaker introduced the '***swimming pool metaphor***': before plunging into the open sea, with its advantages but also its 'sharks', young people need to learn to swim in a protected and progressively more demanding space. The school should be, or help to build, that swimming pool: an environment in which basic skills are developed under controlled conditions before facing full exposure to digital technologies. He also firmly debunked the myth of the *'**digital native**'*: what young people can do with devices is mainly a matter of entertainment and does not necessarily translate into real digital competences. The ability to look for a useful piece of information, assess its plausibility and integrate the result into a line of reasoning is something very different from scrolling through social media feeds.

A.5. *Technology as a teaching resource and the question of assessment*

The speaker developed a detailed reflection on the potential of artificial intelligence as a teaching resource, provided that it is used consciously and with discernment. He recalled his own experience at university of a mathematical analysis exam in which the lecturer allowed students to bring in any material they liked, because what he was interested in observing was the student's '***ability to reason***', not their memory. *Mutatis mutandis*, and with an enormously greater multiplying factor, artificial intelligence raises the same question: it stops being a tool for copying and becomes an extraordinarily rich teaching resource as soon as '***assessment***' is designed to observe the '***thinking process***' and not only the final product.

The speaker illustrated this concept through his own professional experience: in his work he also produces administrative acts, in respect of which the institutional recipient is interested in the formal and substantive correctness of the act, not in whether he wrote it personally. It is therefore possible to delegate the actual drafting, guiding one's colleagues on what the act must contain and why. Similarly, artificial intelligence can be *'**an army of excellent assistants**'*: extraordinarily useful if one knows how to question it, how to guide it and how to evaluate its answers. The relevant competence therefore shifts from material execution to the ability to commission, evaluate and integrate.

The speaker also addressed the '***implications for individual subjects***' of this transformation. Some subjects find in AI an '***amplifier***' of their teaching possibilities; others, which have built their tradition on specific exercises, such as Latin and Greek translation (*versioni*) in classical languages, face painful but unavoidable choices. It is no longer enough to do a translation exercise as it has always been done: every teacher needs to ask what '***educational objective***' that exercise pursues, and

whether there are other ways of achieving it. A single teacher, however, finds it hard to carry out this exercise alone: what is needed is an '***educational plan***' for the whole school, guidance that makes it possible to make collegial choices about what to keep and what can be let go.

A.6. *Learning standards, certification of competences and implicit dropout*

The speaker proposed the adoption of '***explicit learning standards***', set out by level and by stage of schooling, as a practical tool with great potential. The reference model is the one already tried and tested for foreign languages with the CEFR: having precise and shared competence descriptors makes it possible to know what is expected of a student at a given point in their schooling, guides teaching, informs families and allows situations of risk to be identified early.

The speaker recalled the work carried out by INVALSI in this direction: the recent survey of the digital competences of students in the final year of upper secondary school (in which 498 of the 500 schools invited took part), conducted not with self-assessment instruments but with tests that observe how problems are actually solved. In May the same survey is planned for students in the second year of upper secondary school, extended to the whole student population.

A particularly important concept introduced by the speaker was that of *'**implicit dropout**'*: the phenomenon affecting those students who, although they obtain their diploma, finish school with a level of competence significantly below the expected standards. According to INVALSI estimates, this phenomenon affects over eight and a half per cent of Italian school leavers. Early school leaving in the traditional sense is measurable and defined at EU level too; implicit dropout, by contrast, is more insidious, in that the student appears to be on track in the official statistics despite not having developed the expected competences. Tackling it requires the definition of clearly articulated '***thresholds of acceptability***': not with a view to stigmatising anyone, but as a tool for identifying risk early and setting in motion targeted support.

In this regard, the speaker proposed a medical metaphor: just as the general practitioner is best placed to tell a patient that their lifestyle presents risk factors, so the school is best placed to detect difficulties early, as in the case of a pupil who has not yet learnt to read fluently by the end of the fifth year of primary school. Failing to flag this, in the name of a 'don't rock the boat' pedagogy or to avoid awkward situations, is not a neutral choice: it is a choice that leaves the problem unresolved, passing it on to the following years with effects that tend to grow.

The speaker also recalled the potential value of certifying digital competences, not so much as an end in itself as for the '***guiding effect***' and regulatory effect it can produce: if access to certain educational pathways were made conditional on reaching certified thresholds of digital competence, the system would have an effective tool for steering teaching choices.

A.7. Technology and historical discontinuities: the changing use of time

The speaker offered a historical perspective on the great technological revolutions, drawing on the work of a colleague at the University of Sassari who had collected the reactions of intellectual institutions to the main technological leaps in history, from the move from the wax tablet to papyrus, to the invention of printing, to the spread of cheap books. At each of these junctures, the learned of the day had predicted total darkness: with printing, the ability to memorise texts and connect them in one's head would be lost. That fear was not entirely unfounded, since those abilities did indeed decline, but in the meantime humanity gained a great deal else. The speaker declared himself convinced that we are facing an '***analogous discontinuity***', and that the right response is to face it with awareness rather than with rejection or surrender.

The interpretive key proposed is that of the '***use of time***': the great technological revolutions produce a leap in the order of magnitude of the time needed to carry out certain actions, and this leap makes those technologies almost irresistible. The speaker gave the deliberately provocative but illuminating example of the washing machine and the refrigerator: according to some sociological readings, women's emancipation in Western societies was decisively helped by the invention of household appliances that freed up enormous amounts of time, more than by theoretical and ideal commitment to gender equality. Similarly, artificial intelligence frees up amounts of time that were previously taken up by tasks that can be carried out mechanically, and the question is how this freed-up time is reinvested: in the service of activities of greater educational value, or frittered away in other forms of consumption.

On the strength of this perspective the speaker proposed a guiding image for facing change: making choices that hold fast to the founding values and, in their light, deciding consciously what to leave on the quayside and what to take on board the ship that is setting sail. The alternative, trying to take everything without choosing, risks sinking the ship.

B. Discussion: main themes emerging

Technology as a tool for equity and the challenges of student diversity

The discussion opened by developing a theme touched on in the presentation: technology as a potential '***tool for equity***' and inclusion for students with weaker competences, the group that the speaker had shown in light blue in his visualisation of the data on early school leaving. The question put was: can technology, and artificial intelligence in particular, be a tool that helps to keep that group in school in a way that is meaningful, without lowering the level for everyone else?

The speaker replied that the challenge is to look after both groups at the same time, and that this requires prior clarity about '***learning goals***': on the one hand, minimum and measurable goals for everyone (below which it is a duty to flag a problem) and on the other, higher goals for those who are able to reach them. Technology can free up teachers' time: the time previously spent managing the

average pace of the class can be partly delegated to adaptive learning applications, allowing the teacher to devote more attention both to the struggling student and to the able student who needs to be stretched further. He also made clear that this freeing up of time is a real resource only if the school knows what to do with it: without a precise educational plan, the time freed up tends to be swallowed up again by other operational emergencies.

A finding of great systemic importance was also highlighted: the speaker noted that digital competences, if taken seriously, tend to raise rather than lower the level of basic skills required. Assessing the plausibility of a piece of online information requires a deep and sophisticated ability to read text, in the syntactic sense of the term too. Those who cannot read with sufficient mastery are unable to evaluate digital information. Digital competences, therefore, do not replace fundamental skills; they presuppose and amplify them.

The explicit educational model as a precondition: what it means and why it is needed

The speaker was asked to clarify exactly what he meant by an 'explicit educational model' and how it relates to the school's technological choices: is it a question of the school's deep formative mandate or a more operational matter?

The speaker replied that choices about technology can only be made within a '***broader reflection on the educational mandate***', and that this mandate must be not only declared but also shared by the community concerned: teachers, families and students. He gave the example of foreign languages and the CEFR: the European framework states that the school must develop communicative competence in the foreign language, and this orientation is binding on teaching choices. A teacher may choose to work through literature, journalism or other means, but must keep to that compass. In the same way, a school may decide to value translation from Latin as a means of developing logical thinking and attention to the structure of language, but it must know why it is doing so and what competences it is pursuing, and it must be able to account for that choice within a broader plan.

The speaker also stressed that the explicit educational model has an important defensive function: it makes it possible to say clearly which objectives one is concerned with and which not. This capacity for economy is valuable because it allows energies to be concentrated and the dispersal generated by a multiplicity of demands to be resisted. Without an explicit compass, the tendency is to respond to everything without doing anything well.

The minimum age for access to technology: the current debate and the implications for schools

A participant asked the speaker to expand on the theme of the minimum age for access, saying that he had personally become convinced of its urgency and asking for an overview of the current institutional debate.

The speaker reaffirmed that he considers explicit reflection on the minimum age necessary, while acknowledging the political and pedagogical difficulty of translating it into binding rules. He took up

the concept of the 'digital native' in order to take it apart with precision: what young people have developed through early and intensive use of digital devices is not critical literacy but familiarity with entertainment. The example given was that of looking up a piece of information during a conversation over a meal: there is an enormous difference between looking up a fact to contribute to a conversation and looking up one's favourite footballer to escape from an unpleasant dinner. Only the former is an educational act.

It was pointed out during the meeting that education necessarily involves uncomfortable '***decision-making***'. Those who make no choices in the name of a principle of neutrality or consensus are nonetheless making a choice, the choice not to choose, and its consequences materialise all the same. Applied to the age of access to technology, this means that putting the question off does not make it go away, but lets the answer be given by the market and by commercial interests rather than from an educational perspective.

Curriculum and the selection of content

The speaker was asked to develop the theme of '***curriculum selection***': in the light of what technology makes possible and of the new competences it demands, schools are called to decide what to keep of their traditional curriculum and what to leave behind. How can this problem be addressed culturally?

The speaker replied that the right question to ask is not 'do I do this or not?' but 'why do I do it, and what educational objective am I pursuing?' He gave the example of Jacopone da Todi[18]: it is not the presence or absence of Jacopone da Todi in the curriculum that determines the quality of education, but clarity about the objective that studying him pursues. If the objective is to develop sensitivity to poetic language, to the history of medieval spirituality and to the Italian literary tradition, then Jacopone da Todi can be an excellent tool. If instead he is taught because 'it has always been done', his place in the curriculum is bound to give way under the pressure of change. The same applies to translation from the classical languages: the exercise has enormous formative value if it is aimed at developing logical thinking and mastery of syntactic structure, but this value must be made explicit and defended with arguments, not taken for granted.

The speaker also gave the example of the square of a binomial in mathematics: taught for decades as a technical exercise, it can instead be the gateway to a deep understanding of the passage from one dimension to two, with the cross term $2ab$ as the geometric explanation of what happens when linear quantities are multiplied. Taught in this way, it takes on a meaning that goes well beyond the procedure for solving it. Taught as a mere technical trick, it becomes one of the many useless things learnt at school. The challenge is that this '***reformulation***' requires teachers to reflect on their own

[18] *Translator's note.* Jacopone da Todi (c. 1230–1306), Franciscan friar and author of the *Laude*, religious poems in the Umbrian vernacular; he is a traditional author on the Italian literature syllabus of upper secondary schools.

subject in a way that cannot be done individually: it requires '***a school-wide plan, collegial discussion and guidance***'.

The certification of digital competences as a system-wide tool

A participant remarked that, of the speaker's recommendations, the one on the certification of digital competences seemed to him the most 'disruptive' in practical terms, and asked him to say more about it.

The speaker made clear that the most important point is not so much certification in the formal sense as '***identifying standards as learning goals***'. Certification has powerful guiding and structuring effects (if a university course required a given level of certified digital competence, all the teaching leading up to it would be geared in that direction), but even simply using the DigComp analytical descriptors as a compass for curriculum design is a very valuable tool. The framework provides concrete examples of what it means to be competent at a given level, and it is much easier to reason about concrete examples than about abstract formulations. The speaker said that he had personally tried this exercise, setting out digital competences by level and stage of schooling, and that he considered it not impossible, though not simple.

The speaker also stressed the system-wide value of this approach in overcoming the sterile polarisation between those who say 'yes to technology' and those who say 'no to technology'. Thinking in terms of digital competences makes it possible to escape from that binary: the question is not whether or not to use technology, but which competences we want to develop, at what level, at what stage of schooling, through what experiences and with what criteria for assessment.

Competences versus content in Italian schools

A participant raised a structural issue in the Italian school system: competences remain essentially unknown in everyday teaching practice, where thinking is still mainly in terms of content. The risk that the discourse on digital competences will meet the same fate is real: it is adopted as a ***'decoration' of the traditional curriculum*** (replacing 'Cicero' with 'knowing Cicero' or 'understanding Cicero' without really changing the structure), without affecting the fundamental choices.

The speaker shared this concern, acknowledging that the problem is real and deep-rooted. He pointed out, however, that the very availability of precise analytical descriptors (such as those of DigComp, or of the CEFR for languages) can help to escape from the ambiguity: when it is possible to discuss concrete examples of what a student can or cannot do, the debate moves from the level of principles to the '***level of evidence***'.

The systemic risk of complexity: school, simplification and a plural educational model

A participant offered a broader reflection: the complexity of the present and future world tends to be managed by looking for '***simple solutions to complex problems***', and this applies to institutions

too, including schools and the Ministry. There is a tendency to conjure up an idealised past that was more orderly and more 'serious', a projection shared by parents who are better educated but not necessarily more aware, by teachers attached to established models, and sometimes by the direction of ministerial policy too.

The participant also reflected on the plural model of the Italian education system: school autonomy and the recognition of non-state schools as part of the public system[19] should have built a system in which different schools, each with its own distinctive character, contributed to a common search. This project was never completed, and the result is often a lowest common denominator that recognises no one's distinctiveness. In this context, the role of a school such as a Jesuit school is all the more significant the more it manages to present itself as an interlocutor of the system as a whole: not only looking after its own students, but contributing to a reflection that can be useful to the wider system.

The participant also pointed to a dynamic observed in practice: some students coming from renowned licei with good academic results flourish when they are welcomed into school settings with closer personal attention, not because the level is lower, but because attention to the person makes it possible to unlock potential that a more selective and less relational setting had been unable to bring out. The risk that 'serious' non-state schools too may end up replicating the selective logic of the big licei is real, and should be consciously resisted.

Individualised AI pathways and the risk of marginalising the school

A participant put forward a forward-looking provocation: given the speed at which AI is developing the capacity to personalise learning pathways, how long will it be before someone proposes '***entirely virtual school pathways***', built by AI around the individual student, that make it possible to reach certain standards more quickly and efficiently than traditional school?

The speaker acknowledged the risk, recalling his own experience: the introduction of technology into mathematics teaching had been greeted optimistically as a solution to the problem of learning, but the actual result had been '***the amplification of pre-existing differences***', not their reduction. Technological tools had made those who already had skills and motivation faster and more efficient, widening the gap with those who did not. This risk still applies today and must be borne in mind when designing any intervention.

However, the speaker also pointed to a possible answer: a school that knows how to use technology to free time from mechanical execution can reinvest it in the educational relationship, in individual work with struggling students and in challenging more advanced students with more complex tasks. From this perspective technology does not marginalise the school: it strengthens it, provided that the school is clear about its objectives and knows what to do with the time freed up. The school

[19] *Translator's note. Parità scolastica*: under Law 62/2000, recognised non-state schools (*scuole paritarie*), including Catholic schools, form part of Italy's national system of education alongside state schools.

that plays defensively, trying to exclude technology in order to preserve its traditional practices, is the one most exposed to the risk of marginalisation.

The speaker concluded on this point with a reflection he described as 'unpopular': if technology makes it possible to do some things that previously required many teachers with very different abilities, it may be that in future fewer teachers will be needed, but better trained and more capable ones. This is a difficult thing to say out loud, but one that deserves to be thought through.

Has knowledge lost its value? What gains value today

A participant asked a question that runs through the whole discussion: has knowledge lost its value today? And if so, what gains value in its place?

The speaker answered precisely: knowledge as an '***accumulation of information***' retrievable from a low-cost device has certainly lost value. The positional advantage that for generations gave those who knew many things a structural edge has been eroded by universal access to information.

Knowledge instead keeps its value intact, and indeed gains new value, insofar as it relates to the exercise of '***critical thinking***', to the building of interpretive networks and to the ability to connect disparate pieces of information so as to produce understanding. The difference lies not in what one knows or does not know, but in the way that knowledge is related to other knowledge and put at the service of a deeper understanding of reality.

Suggestions for humanities teachers and rethinking assessment

At the end of the session, a participant asked how to help teachers in upper secondary schools with a humanities focus to understand and facilitate the technological transition, and in particular how to rethink school assessment so as to guide young people towards learning through reinforcement.

The speaker replied by pointing to a practical path: the shift is not to stop teaching what one used to teach, but to ask explicitly '***why it is taught***'. A classics teacher who asks 'what educational objective am I pursuing through translation?' and can give a convincing answer has already taken the most important step. If instead the answer is 'because it has always been done', that practice is bound not to withstand the pressure of change.

On the specific question of assessment, the speaker indicated that assessment must increasingly be geared to observing the '***thinking process***' rather than the final product. He recalled the example of the mathematical analysis exam with which he had opened his presentation: allowing the use of any material did not make the assessment easier; it made it more authentic. *Mutatis mutandis*, in a context in which AI is available, the assessment that 'uncovers' real learning is the one that observes how students reason, how they question the tools available to them and how they evaluate and integrate the answers they obtain. This is a form of assessment that requires more competent teachers and that values the relational dimension of the educational relationship rather than bypassing it.

C. Practical suggestions and final conclusions

Several practical directions emerged during the meeting:

- First, the need for every school to make its reference educational model explicit before facing any technological choice emerged strongly. Technology is not a question in its own right: it is a tool that amplifies the value choices already made, or not made. Without a clear educational plan, technology tends to be used reactively and in a scattered way; within an explicit and shared educational plan, it can become a very powerful lever for achieving formative objectives.
- Second, the definition of explicit, measurable learning standards calibrated to each stage of schooling was identified as urgent. The model of foreign languages with the CEFR, and that of digital competences with DigComp, offer a concrete starting point. This is not about standardising education, but about setting common goals that make it possible to know when there is a problem and to intervene early.
- Third, the question of curriculum selection was recognised as unavoidable: in the light of what technology makes possible and of the new competences it demands, schools will have to make choices about what to keep and what to let go. The compass for these choices is not tradition as such, but clarity about the educational objective: every piece of content and every method must be able to answer the question 'why?'. This exercise cannot be left to the individual teacher: it requires collegial work guided by a school-wide plan.
- Fourth, there was a shared conviction that the school that plays defensively with regard to technology is the one most exposed to the risk of marginalisation. Embracing technology in a critical spirit, designing its integration with awareness, and freeing time from mechanical execution in order to reinvest it in the educational relationship and in formative challenge: this is the path that allows the school to be an amplifier of possibilities rather than an institution in decline.

MEETING 10

Andrea Maccarini, Università di Padova

20 April 2026

A. Main themes emerging from the speaker's talk

A.1. *Context and methodological premise*

The speaker opened his talk by stating precisely his own vantage point: he is a sociologist of education, not an educationalist, and this distinction is not incidental but defines the contribution he offered to the working group. What he proposed to share were not practical solutions or pointers for educational design, but reflections on '***cultural and structural trends***' that, in his view, lie at the heart of the nexus between technologies and educational processes. The meeting, he explained, was conceived as a sharing of ideas within a working group, not as a formal presentation: no slides, no demonstration sequence, but a reasoned path combining theoretical considerations and research findings.

The methodological premise also served to set boundaries. The speaker set out the formative and educational needs that emerge from the sociological analysis of the relationship between technologies and learning, leaving the answer to the question of 'how', in the strictest sense of the term, to the design of educational practice, which is a matter for pedagogy. The contribution focused on the '***what***': the phenomenology of the nexus, the needs that emerge from it and the conditions required to address the problem in depth.

A.2. *The technocratic discourse on technology in education: potential and drifts*

The speaker started from an aspect often overlooked in the educational debate: the existence of a discourse on AI and education produced not by educationalists or critical sociologists but by the very actors of technological progress. He cited concrete examples: the head of Google Media within the OECD's Directorate for Education; Charles Fadel, a former Cisco executive and founder of the Center for Curriculum Redesign, who puts forward systematic reflections on the integration of technologies into education. This mechanism, he stressed, cannot be ignored: these actors carry weight in decisions on the international agenda, and will do so increasingly.

As regards the '***technocratic discourse***', elements of undoubted value can be recognised. The first is the idea that technologies can 'compress experience', not in the sense of reducing it, but of making accessible, within a '***restricted space and time***', an extremely wide range of experiences capable of supporting learning throughout life. The emblematic example is that of simulations and immersive virtual environments, which make it possible to place learners within complex problems experienced at first hand. This was presented as an enhancement of discernment and decision making: narratively effective and cognitively intriguing.

However, from this starting point the technocratic discourse builds, in the speaker's view, a kind of slide leading towards far more problematic drifts. The first is '***personalisation understood as profiling***': AI as a teaching assistant that suggests educational proposals tailored to the individual pupil on the basis of their progress and deficits, and students who make use of algorithmic tutoring systems. In this context the speaker cited experiments carried out in some Chinese schools (where 'some' means at least eighty, he pointed out) in which AI devices make it possible to monitor students' emotional state by means of chips, presented under the label of *'**student well-being**'*. He also mentioned methodological discussions within the OECD on the use of biochemical parameters to detect students' stress levels: a biotechnological drift that he sharply criticised on methodological grounds.

The second problematic element is ***the logic of 'replaceability'***. Within the technocratic framework, educational design is conceived as an exercise in filtering: working out which human competences and knowledge can be replaced by AI and concentrating on those that cannot. The speaker raised two objections. The first is conceptual: if the list of replaceable competences grows, what remains takes on a residual character, as if education were reduced to dealing with whatever is left after AI has taken everything else. The second is epistemological: it is not at all clear what it really means for a human competence to have been 'replaced'. Replaced in what sense? Has a functional equivalent been produced in every sense, or has only a partial function been replicated? The reflexivity needed to answer this question is, the speaker stressed, already in itself an unresolved educational problem.

A.3. *System zero as cognitive infrastructure and cognitive empowerment*

The first of the three points of critical inquiry proposed by the speaker concerns what he calls *'**system zero**'*. Most current discourse on AI in education, he argued, has so far approached it as a tool: something one picks up and puts down on the table, which mediates interactions between human beings and has effects on our opinions, our attention and our perception. This is the perspective that has dominated the sociology of communication and communication theory. The current frontier of research is moving elsewhere.

It was pointed out during the meeting that some social psychologists and cyberpsychologists are theorising the existence of a 'system zero': a level of processing that operates beneath Kahneman's systems one and two (fast, intuitive thinking and slow, analytical thinking) and acts as a kind of '***preprocessor***'. This system is located not inside the human brain but in the external technological environment: search engines, language models, algorithmic systems. The working hypothesis of this line of research is that this layer is gradually becoming a cognitive infrastructure, a '***precursor of conscious thought***': a level that shapes information before human reflexivity becomes aware of it. An essential feature of this infrastructure is that judgements of relevance (what is worth knowing,

searching for, seeing, acting on) tend to be delegated to it. What the speaker called '***epistemic agency***' is therefore altered: the place where decisions are made about what is worth knowing.

The educational response to this challenge cannot be that of the *'mainstream'* technocratic discourse. It was stressed that the fundamental task becomes building systems that make invisible artificial intelligence visible: making the interaction between human beings and technology an explicit object of learning. If we wanted to give it a name, the speaker said, we would call it *'**cognitive empowerment**'*. It is not a matter of using tools better, but of becoming aware of the cognitive processes that the tools are shaping before we even realise it.

A.4. *Sociality, identity and technology: the quantified self and the crisis of authenticity*

The second point of depth concerns the knot tying together technologies, identity formation and sociality. The speaker introduced this theme by way of an unexpected research path: the study of gender-based violence had led him to explore the so-called '*manosphere*', the nebula of chats, blogs and digital platforms that serve as meeting places for male communities, which has also become known to the general public through the television miniseries Adolescence. What had struck him about this phenomenon was not so much its anti-women character as one specific trait: the widespread presence of what he called *'**a quantitative anthropology**'*.

Boys displayed '***abysmally low levels of self-esteem***' based not on relational experiences or qualitative self-assessments but on measurements (the sharing of photographs, the number of reactions, the physical dimensions of their own bodies), as if their human worth were the result of a psychometric identikit. This phenomenon has directly to do with technologies: it is social media, the shared photograph, the image projected to a judging outside world, that supply the raw material for this self-assessment. The speaker pointed to the convergence between this phenomenon and the research of Hartmut Rosa and of Vera King with her group in Frankfurt: the theme of the *'**quantified self**'* and of the *'**measured life**'*, an idea of perfection as self-optimisation, an anthropotechnics in Sloterdijk's sense.

The educational point that emerges is radical: a person who builds their human worth on foundations of this kind has no idea of their own dignity that goes beyond performance. And performance, the speaker stressed, is already something acquisitive, dependent on effort and talent. When the measure of one's worth is the millimetres of one's jaw or the number of likes, one has sunk to something even more radically external and contingent. What kind of basic trust can a person have who relates to themselves in this way? What foundational relationships can they draw on? The question was put as rhetorically open, but with a very strong educational implication: this is often precisely the starting point, and it is a very radical one.

The second aspect of the question of identity concerns '***authenticity***'. The culture of modernity rests on the idea that what is authentic is the supreme normative value of the modern self; it is the keystone of modern identity, as Charles Taylor shows. Now the system of social media profiles is

radically calling this very possibility into question: one no longer builds an authentic self but a profile, and this profile is something different, potentially multiple and deliberately constructed. The position of some authors was cited who, albeit still in an exploratory way, wonder whether we are witnessing the end of the culture of authenticity: not in the sense that authenticity no longer matters, but in the sense that technological contexts make it structurally difficult to inhabit.

A.5. *Technology as a relational partner: the wish to escape risk*

The third and most radical point of depth concerns the shift from technology as a mediator of relationships to technology as a partner in relationships. The two previous points, system zero and the knot of identity and sociality, still treated technology as a tool, as a form of mediation between human beings, albeit with increasingly invasive effects. The further step occurs when technology no longer mediates interaction between human beings but itself becomes a '***subject of interaction***': a partner.

It was pointed out during the meeting that this shift is no longer merely a future scenario or a marginal pathological phenomenon. It is already happening: girls and boys turning to chatbots for psychological or spiritual counselling; chatbots designed as *'**AI companions**'* for ongoing emotional interaction; documented cases of people falling in love with conversational systems. The speaker also mentioned social robotics and its experiments in education: in some research on children interacting with educational robots an interesting reversal is already taking place, in which it is no longer technology that mediates interaction between human beings, but a human being who mediates the interaction between technology and another human being. The next step is unmediated interaction.

The question the speaker proposed as fundamental is not technical but anthropological: why is all this happening? The answer he proposed is that it reflects a wish to '***escape the risk of relationship***'. Human relationships involve failures, imperfections and 'ruptures': those who seek in a technological entity a source of relational intimacy, of shared subjectivity, of friendship, do so in order to escape this risk, to find something that 'works' without the rough edges of the human other.

A.6. *The features of human relationships and the attempt to bypass them*

To give analytical depth to this point, the speaker identified some structural features of human relationships: not a normative list of how relationships ought to be, but a phenomenology of what human relationships inevitably are. The point is that interaction with technological entities systematically tends to try to bypass them.

The first feature is '***self-limitation***': human relationships imply that no one can be everything. Entering into a relationship means recognising one's own incompleteness and recognising that the other cannot be absorbed. This is the matrix of generativity. The second is '***the impossibility of controlling relationships***': relationships stabilise over time, build trust and tend towards a certain degree of behavioural consistency, but the other remains other; there is a transcendence of the other that

cannot be eliminated. The third is '***univocity***': over time relationships tend to take on a relatively stable code; a prolonged excess of ambiguity damages them. The fourth is the '***relative stability of the identity***' of those in the relationship. The fifth is '***responsive presence and its limits***': no one can be fully present to an indefinite number of interactions at the same time. The sixth is '***temporality***': relationships have a history, a biographical trajectory, and this history is not wholly reversible; what lies in temporal connection cannot be made simultaneous. The seventh is '***imperfection***': the other can bore us, disappoint us, fail to respond to us as we would like.

All these features, the speaker made clear, are not simply ethical rules on how relationships ought to be: they are '***inescapable structures***' of the way human relationships work. Interaction with technological entities, by contrast, tends to challenge each of them: it makes the other predictable and tamed ('***reprogrammable***'), creates a technically designed reliability, allows one to try to make time reversible (the profile with ex-girlfriends that can be called up as if from a drop-down menu was cited as an emblematic example), and offers an inexhaustible presence without boredom. The result is what the speaker called *'**the customer-tailored other**'*: the rejection of imperfection, the construction of an interlocutor without the rough edges of the human other.

A.7. *Symbolic adulthood, hope and foundational relationships*

The last point of the talk shifted the perspective from diagnosis to the root of the problem. The '***wish to escape the risk of relationship***', the speaker argued, cannot simply be thrown into the melting pot of individualism: what is being sought, even in the most distorted forms, are forms of integration, ways of placing trust, ways out of the malaise in one's relationships with oneself, with others and with the world. And this has to do, profoundly, with a problem of the adult world.

The speaker recalled Erikson's category of mature 'integrity': the capacity of the adult world to foster broad experiences without blocking them, to bring out care and talents, to open up dimensions of reality and to pass on hope. He quoted Erikson's remark that *'healthy children will not fear life if their elders have integrity enough not to fear death'* in connection with the contemporary obsession with longevity and the fear of death as features of today's adult world. He also recalled the concepts, well rooted in empirical research, of 'belief in the species' (basic trust in the experience of humankind) and of symbolic immortality, presented as elements of empirically tested explanatory models.

It was strongly emphasised that in research on young people after the pandemic, what emerged in their plans for the future was not an absence of plans but '***the absence of a surrounding context***': the institutions, the cultural and structural fabric that should give meaning to individual plans. Young people find themselves in a vacuum: there are adults, but no symbolic adulthood capable of inspiring fundamental trust, of handing them over to the world with the words 'go ahead'. Passing on hope and placing young people within unconditional foundational relationships, relationships that convey an idea of dignity and worth not tied to performance, was identified as the deep root of everything that is being experienced, and as the point from which we must start again.

B. Discussion: main themes emerging

The meaning of replaceability: functions versus the overall cognitive process

The first contribution to the discussion took as its starting point the theme of the replaceability of competences, raised by the speaker in his analysis of the technocratic discourse. A distinction was proposed that the speaker recognised as central: there is a difference between replacing a specific function and replacing the activity as a whole. Knowing the provinces of Calabria is a function that AI can perform without significant loss; but the cognitive process that leads to understanding the importance of a topic, the construction of conceptual networks that give meaning to what one knows, is not equivalent to the function of retrieving information. Functional replaceability does not necessarily imply the replaceability of the overall cognitive process.

The speaker agreed and added a temporal dimension to the problem: that of generational lineages. For now, those who interact with AI systems belong to generations socialised in a world without AI, and this socialisation gives them the ability to correct the errors that AI produces. He gave the example of programmers: today AI can produce strings of code in minutes instead of weeks, but programmers notice the errors because they have developed independent skills. When there are generations that have never known a world without AI, this capacity for correction may no longer exist: the process would become circular, with self-reinforcing *'**deskilling**'*. He made clear that the problem should not be framed as a zero-sum game, in which something is lost and something gained, because it is not at all clear what is gained: if the time freed up is used to produce ten times more of the same product, one is not acquiring a new skill but simply losing the one one had.

Classroom or theatre? Knowledge in the future of education

A participant put a provocative question: with a limited budget, would one invest in a classroom or a theatre? The question condensed a broader hypothesis: should the school of the future shift more and more towards work on relationships and less and less towards the acquisition of knowledge, which might be progressively replaced or made accessible by AI?

The speaker replied that he would build a classroom, but one configured differently from how classrooms often are. He showed the force of this answer through a visual paradox: photographs of cars and telephones a century apart show almost unrecognisable objects, whereas photographs of classrooms a hundred years apart show very similar settings. The issue is not one of structure but '***of organisation***': a classroom that encourages group work, relationship and collaboration. On the replaceability of knowledge the speaker gave a nuanced answer: knowledge will remain important, but its value is shifting. It is no longer the mere acquisition of information, but the ability to filter it, understand it, reason about it and understand the underlying cognitive processes. One must still know something about one's own cognitive processes; otherwise the risk is no longer being able to correct the errors that the systems produce.

The 'new humanism' and the paradoxes of personalisation

A participant introduced a critical reflection on a concept in the school's strategic plan: the idea of a 'new humanism', according to which handing over mechanical operations to machines frees time and space for caring for the human dimension and for relationships. This idea, he acknowledged, had been embraced with hope: machines do the mechanical things, and more space is left for the human. But that is not what is happening. A warning sign had come when people began to talk about delegating the personalisation of teaching to AI, including for students with specific learning disorders: the act of personalisation, which in the humanist tradition is the most human of educational acts, is handed over to the machine. The same applies to algorithmic tutoring and to AI-mediated psychological and spiritual support.

The speaker pointed out that the argument that 'delegating to technology frees up time' is structurally weak: the same was said of the washing machine and the dishwasher, and what actually changed did so for other, more complex reasons. The point is not to play a zero-sum game, but to try to build partnerships with technology starting from a culture capable of giving meaning to what one does: personalisation too can have different meanings, and the distinction between providing more individual options and personalising the educational relationship in a deep sense is fundamental. He also recalled the paradox of the pandemic: many schools had held tests in person and lessons online, implicitly sending students two messages: 'I don't trust you' and 'lessons are worth less than tests'. The schools that had done this came out of the pandemic worse off.

The lack of symbolic adulthood and the problem of trust in the future

The discussion moved on to the adult world as the root of young people's malaise. A participant took up the speaker's point about symbolic adulthood, recognising it as central to understanding what girls and boys are experiencing today. The speaker developed this thread with the Erikson quotation on intimacy and the fear of death, reading it in relation to the contemporary obsession with longevity: when adults are dominated by the fear of death and by the religion of longevity, they pass on to young people a lack of hope in the world. In the research conducted, young people after the pandemic did not appear to lack individual plans, but to lack a context (institutions, a cultural and structural fabric) that would give meaning to those plans. There are adults, but symbolic adulthood is missing: the capacity to inspire fundamental trust, to hand on the world as something that still makes sense.

A participant suggested that young people's unease could also be read as a form of protest: young people feel that the world being built is not the one the adult world says it wants to build, and to some extent they reject it. The speaker agreed: what shows itself as malaise is often also a search for new kinds of relationship with oneself, with others and with various dimensions of the world. Access to these dimensions, however, is often closed off from the outset.

Cognitive empowerment and awareness as an indispensable task of the school

A participant developed the theme of cognitive empowerment introduced by the speaker, stressing that making the interaction between human beings and technology visible, and bringing to light the collective knowledge generated unwittingly through digital systems, is a task that concerns not only young people but the system as a whole. He pointed to the 'short-sightedness' of the Ministry of Education: an approach that bans devices without giving young people the tools to understand how technology works beyond the screen. Depriving young people of this awareness while AI systems shape their cognitive structures is like acting with the logic of someone who cuts out a piece of a jigsaw without seeing the whole picture: what remains invisible has a far greater effect.

The speaker agreed and broadened the reflection: the point is not simply whether young people use certain tools or not, but whether educational communities have a culture of their own, an idea of their own, an educational pact of their own with families, capable of steering the use of technology instead of being subjected to it. The answer is not prohibition but the offer of meaning: managing to convey to girls and boys the idea that the world is not finished, that there is still something to be done, that they have not arrived too late.

Otherness as an educational value: the rejection of imperfection and its roots

A participant took up the theme of otherness, introducing a biblical key to its interpretation: truth, from this perspective, is built in encounter and struggle with the other, in fraternity and generative relationship. The reduction of otherness to a controllable object, the idol, is precisely the dynamic the speaker had described in the relationship with technological entities: the relational need is not forgotten, but it is satisfied with something that does not really respond. The speaker found in this reading a deep convergence with his own sociological analysis: young people's malaise is not an absence of relational desire, but a desire that finds no adequate spaces in which to express itself.

The way out lies not in adding technologies or in banning them, but in finding ways to give a taste for a relationship that does not pass through technology: sport, artistic expression, community experiences, physical contact, everything that conveys the beauty of relational imperfection. A participant recalled their own direct experience: school theatre, the musical and collective artistic production as experiences that create wonderful relationships among young people. These experiences are not ornamental to formation: they are a constitutive part of it.

The theatrical insight: unity of action and what the school cannot give up

A participant offered a contribution of great conceptual depth, taking as her starting point the speaker's reflection on the educational potential of compressing experience. The reference was Victor Hugo's dramaturgical revolution in the preface to Cromwell: the critique of the three Aristotelian

unities of classical theatre (time, place and action) and the proposal to free time and place while keeping unity of action.

The distinction the participant proposed is as follows: time and place, the two rigid unities that Hugo deconstructed and that the modernity of cinema and narrative has multiplied, can change form; they can be compressed, expanded, broken. But unity of action, that is, the Aristotelian principle of verisimilitude whereby the human mind can fully grasp and follow only one action at a time, only one relationship at a time, has not been called into question by any aesthetic revolution: it has remained unchanged even in the most experimental cinema. This principle is not a rigid, historically dated rule but an anthropological constant. Time and place, for their part, have not disappeared: even in the most fragmented narrative, the ability to distinguish between fabula and plot, to reconstruct the temporal sequence, is fundamental. The unities have been transformed, not eliminated.

The educational implication the participant drew from this insight is that what the school helps to bring fully to life (the capacity to stay within a relationship, to follow an action, to reconstruct the temporality of an experience) are competences that cannot be replaced, whether relational or technical. The speaker fully recognised this convergence: what the school safeguards and cannot give up is exactly this, what no transformation of time and space, no technological compression of experience, can take away without loss.

The hypothesis of meaning and social acceleration as a functional substitute for transcendence

In the final part of the discussion the speaker put forward what he described as the necessary condition for all the preceding discussion to become educational direction: the availability of a hypothesis of meaning. Not an ideological certainty, but a hypothesis, something that an educational community upholds as a proposal, not as an imposition, and puts to the test in its common life. Knowledge, competences, relationships: everything takes on meaning if it is interpreted in the light of a common thread that the educational community proposes as a key to reading the world.

Without this hypothesis of meaning, the risk is of being trapped in what the speaker described through the theory of social acceleration, associated with Hartmut Rosa and, before him, with Hans Blumenberg: the acceleration of the quantity of experiences and actions that can be carried out in a given span of time as a functional substitute for transcendence. No longer able to think of a future horizon beyond, the functional substitute becomes the bulimic accumulation of the greatest possible number of experiences in the present. The compression of experience of which the technocratic discourse speaks can become precisely this: not an educational potential but a bulimia of the self. And once the common thread, the hypothesis of meaning, is missing, everything is reduced to this directionless overload, which ultimately leads to the experience of estrangement and unreachability that young people widely display today.

The speaker closed by stressing the selective courage this requires: proposing hypotheses of meaning knowing that they are hypotheses, knowing that it is possible to act otherwise, but with the

reflective conviction that certain hypotheses have a greater capacity for survival, and for truth, than others. This is not naivety, but a conscious wager.

Appendix B. Book summaries

1. *World-Centered Education*, Gert Biesta

Introduction. Brief summary

The book *World-Centered Education* (Italian translation: *Il mondo al centro dell'educazione*), published by Gert Biesta in 2021, develops a critical reflection on contemporary conceptions of education that tend to identify education with processes of learning, development or the acquisition of competences. The author questions the idea that education can be understood as a process of producing the subject or as a set of interventions aimed at the individual's effective adaptation to the environment.

Biesta proposes instead to rethink education as a responsible relationship with the world, emphasising the existential dimension of the educational process. The primary aim of education is not growth, performance or the optimisation of learning; it concerns the way in which human beings are called to exist in the world and to respond to its demands. From this perspective the school plays a fundamental role as the place where the world is presented to new generations not only as a space of possibility but also as a reality that calls on them and sets limits.

Main themes addressed in the book

1. The educational question as an existential question

In the book Biesta argues that the central question of education cannot be reduced to the processes of human development, learning or socialisation. The fundamental educational question concerns rather the way in which human beings exist in and with the world, understood in both its natural and its social dimension. Education is concerned with how individuals live their existence, with the choices they make and with the responses they give to the possibilities and demands that the world places before them. In this sense Biesta sharply distinguishes the educational question from explanations that refer to biological, psychological or social factors, placing education on an existential plane that concerns the way the I acts on the basis of what it has become.

2. The Parks–Eichmann paradox

Biesta introduces the Parks–Eichmann paradox to show how the outcomes of education can be judged in profoundly different ways depending on the paradigm adopted. What appears to be an educational success in terms of adaptation, obedience or effective functioning may prove problematic when considered from the point of view of personal responsibility. Eichmann represents the outcome of an education that worked in terms of efficiency and conformity but failed in terms of the capacity to take a personal stand. Conversely, behaviour that may appear to be an educational failure by functional criteria can take on decisive educational value if it expresses the possibility of not adapting and of saying 'no'.

3. Beyond the nature–nurture debate

The book takes up the debate on the influence of natural and environmental factors in the formation of the human being, often accompanied by attempts to quantify the weight of education relative to other factors. Biesta, drawing on Benner, argues that the educational question cannot be posed in terms of causality or percentages of influence. Even though nature, environment and education all contribute to human development, education concerns a different domain: the way individuals exist, live and act once they have become what they are. For this reason the educational question does not coincide with the definition of identity, but with the way human beings use the competences they have acquired and also face their own limits and shortcomings.

4. The paradigm of education as cultivation

Biesta describes as the dominant paradigm of education the one that interprets it as cultivation. From this perspective, human beings become what they are through the interaction between internal factors and external influences, and education has the task of supporting and guiding this process of growth. Cultivation is understood both as a description of how human development takes place and as an organising principle of educational action, which aims to ensure exposure to a plurality of cultural and social experiences. In this paradigm education is conceived as an indirect process, which acts by organising the environment rather than through direct interventions on the person.

5. Dewey and education as adaptation

Within the paradigm of cultivation, Biesta presents Dewey as an exemplary reference. For Dewey education coincides with growth and with a continuous process of transaction between organism and environment, in which human beings act on the world and are at the same time transformed by it. Learning consists in acquiring new patterns of action that enable the organism to adapt to a constantly changing environment. Since adaptation takes place through experience, education cannot be direct but must come about indirectly through the arrangement of educational environments. The

capacity to anticipate the consequences of actions symbolically allows human beings to direct their action before intervening concretely in the world.

6. The limit of the adaptive paradigm

According to Biesta, Dewey's educational theory can be interpreted as a theory of intelligent adaptation to the environment. Yet it is precisely this centrality of adaptation that constitutes its main limitation. An education geared exclusively to adaptation does not allow for the possibility of interrupting the process, of not conforming, or of taking a critical position towards the demands of the environment. The Parks–Eichmann paradox shows how adaptation, if not accompanied by the possibility of taking personal responsibility, can lead to educationally problematic outcomes.

7. The paradigm of existential education

As an alternative to the paradigm of cultivation, Biesta proposes a second educational paradigm, which he calls existential. From this perspective the I is not the result of a process of cultivation and cannot be produced by education. The task of education is not to direct or construct the individual, but to encourage being a subject, being an 'I'. This appeal is to be understood not in terms of identity or self-expression, but as taking personal responsibility towards the world. Education is therefore the place where the subject is called to respond, rather than merely to adapt or to carry out instructions.

2. *La fabbrica dei voti* [The Grade Factory], Cristiano Corsini

Introduction. Brief summary

The book '***La fabbrica dei voti***' [The Grade Factory], published in '***2017***' by '***Cristiano Corsini***', takes a critical look at school assessment, focusing in particular on the use of numerical marks as a widespread practice that shapes the structure of the education system.

Through the analysis of empirical research, theoretical references and exemplary cases, the author challenges the idea that the mark is a neutral and objective instrument for measuring learning. The book shows how the centrality attributed to the mark helps to shape behaviour, expectations and relationships within the school, profoundly affecting the way students, teachers and families interpret the meaning of the educational experience. It shows how numerical assessment, when its function is mainly to classify and select, risks reducing learning to performance, fuelling dynamics of competition, anxiety and control. From this perspective, the mark becomes the end product of a process that progressively loses its formative dimension. Alongside its critique of dominant assessment practices, the book offers a reflection aimed at moving beyond 'mark fetishism', recalling a conception of educational assessment based on descriptive judgements, the positive use of error, student participation and pedagogical intentionality. Assessment is thus placed back at the centre of the educational relationship, as a tool at the service of development and learning and not as an end in itself.

Main themes addressed in the book

1. General framework and subject of the book

The book *La fabbrica dei voti* deals systematically with school assessment, focusing on the use of the mark as the dominant mechanism in educational processes. The analysis concentrates on the effects that numerical assessment has on teaching practice, on the educational climate and on the shared representations of learning held by students, teachers and families. Assessment is treated as an eminently pedagogical question, and not as a mere technical or administrative requirement. From this perspective the mark is considered for the function it performs in shaping behaviour, expectations and relationships within the school as an institution, rather than for its formal or certifying value.

2. The meaning of the mark in the experience of students and families

From the students' point of view, the frequency and centrality of numerical assessment help to build a school experience marked by a sense of being continuously judged. The mark becomes a structuring element of school life, generating dynamics of competition, constant comparison and emotional pressure, with significant consequences in terms of anxiety and fear of failure.

Families and students tend to steer the meaning of learning mainly towards the numerical result. The mark is interpreted as the goal of the educational journey rather than as an indicator of a process. In this context, attention shifts from the way one learns to comparison with others, reinforcing a competitive logic that reduces the complexity of the educational experience.

3. Assessment practices from the teachers' point of view

For teachers too, the moment of assessment is described as a critical step, often associated with tension and unease. The use of the mark as the main assessment tool appears inconsistent with the aim of fostering a genuine interest in knowledge, since it tends to replace intrinsic motivation with the pursuit of results.

The book highlights differences between the various levels of schooling, pointing out that pedagogical preparation is more present in primary school, whereas in secondary school teachers' training is often centred mainly on their subject. It also questions the use of the concept of a teaching 'vocation', preferring to reflect on a passion for teaching, distinct from a passion for the subject and accompanied by a clear educational intentionality. In assessment, this intentionality translates into the teacher's responsibility for the formative effects of their choices, and into an awareness that assessment has a direct impact on students' development.

4. Assessment as a pedagogical choice

The experience of the COVID-19 pandemic is read as a moment of discontinuity that exposed the limits of an assessment model based on control. The difficulties linked to remote testing and to the use of digital tools called established practices into question, bringing back to the centre the theme of trust as a structuring element of the educational relationship. In this context the book proposes reversing the traditional assessment paradigm, inviting us to start from questions of meaning:

- why do we assess?
- what educational aims guide the act of assessment?

Only by starting from these questions is it possible to reflect coherently on the tools and methods of assessment.

5. The reasons for assessment

Drawing on the study by Harris and Brown (2009), the book identifies the main reasons that guide teachers' assessment practices: compliance with regulatory requirements, accountability to students and families, student motivation, guidance of teaching choices and the improvement of learning.

These reasons are traced back to two fundamental areas: on the one hand bureaucratic and institutional demands, on the other the pursuit of teaching effectiveness. The predominance of the former helps to reinforce a reductive use of the mark, emptying it of its educational function.

6. A critique of mark fetishism

The book takes up the concept of 'mark fetishism' to describe a conception of assessment that attributes an absolute value to the number, independent of the learning processes it is supposed to represent. From this perspective the mark takes on a disproportionate role, becoming the main criterion by which students' school worth is recognised. This centrality of the mark helps to steer teaching practices and individual behaviour in ways that are not very consistent with the educational aims of the school, reducing assessment to an act of classification.

7. Towards educational assessment

As an alternative to miseducative assessment, the book proposes a conception of educational assessment, geared to students' development. Central to it is the recognition of error as a constitutive part of the learning process and as an opportunity for teaching, rather than as something to be penalised. Miseducative assessment shows itself, among other things, in the absence of descriptive judgements capable of giving precise feedback on the work done and concrete pointers for improvement. Educational assessment, by contrast, is based on ongoing descriptive feedback, on a transformative purpose and on a participatory management of the power to assess, which actively involves students in their educational journey.

3. *Per un'idea di scuola* [Towards an Idea of School], Massimo Baldacci

Introduction. Brief summary

Massimo Baldacci's book, published in 2014, addresses the idea of school starting from a series of conceptual knots that run through contemporary educational debate: instruction or education, vocational training or general education, knowledge or competences, individualisation or personalisation, the school as a company or the school as a community, equity or meritocracy.

These alternatives are presented not as simple dichotomies but as structural tensions that require a clear commitment to an educational principle capable of guiding the school's institutional, teaching and organisational choices.

Main themes addressed in the book

1. The educational principle of the school

At the heart of Baldacci's reflection lies the idea that the specific task of the school is to instruct and to educate through instruction. This position belongs to the tradition of Antonio Gramsci, for whom the school 'educates because it instructs': authentic education is not a separate action or an addition to instruction, but a long-term side effect of it. According to Gramsci, a school that tries to be directly educational, breaking the link with instruction, ends up reducing education to preachy rhetoric, failing precisely in its formative task. From this perspective, emphasising the structuring of *formae mentis* means shifting attention to the overall and lasting formative effects of the school experience. Asking what those effects should be amounts to raising the question of the school's educational principle, a theme that Baldacci brings into dialogue with the thought of Gramsci and of John Dewey.

2. The levels of school education

Baldacci distinguishes the different levels of school education starting from the conception of the human being as a historical and social subject, embedded in concrete contexts of life and engaged in multiple social functions: producer, consumer, citizen.

Alongside this dimension, he stresses the need to reflect on the formation of the human being in general, considering the ideal directions of human experience, such as intellectual, ethical and social formation. To clarify the complexity of formative processes, Baldacci refers to the distinction proposed by Gregory Bateson between three levels of learning.

- The first level concerns the learning of subject knowledge and skills and corresponds to instruction.

- The second level concerns changes in the way of learning and leads to the formation of habits of mind, that is, lasting dispositions that guide thought and action: this level is the core of education.
- The third level concerns the capacity to modify previously acquired habits of mind when they prove inadequate, developing flexibility and openness to change.

According to Bateson, second-level learning takes shape only alongside first-level learning. It follows that school education is indirect in character and intrinsically bound up with instruction: the school educates to the extent that it instructs.

3. Knowledge, competences and habits of mind

Within this framework, the theme of competences is traced back to second-level learning. Competences are understood not as a simple set of operational skills, but as general and transferable capacities that enable people to act effectively in different contexts.

They develop from subject teaching, which remains the driving force of school education, and contribute to building a mental equipment that is stable and flexible. Baldacci stresses that the shift from a school centred exclusively on knowledge to a school that also attends to competences and habits of mind does not mean abandoning subject knowledge, but reaffirms its centrality within a broader formative perspective.

4. The economic and political paradigms of education

The book analyses the relationship between school and the socio-economic system by comparing two major paradigms: human capital and human development.

The human capital paradigm interprets the role of the school in functionalist terms, assigning it the task of preparing workers for productive processes and closely linking education and productivity. This approach, however, risks reducing the value of education to its economic benefits alone. Alongside this paradigm, Baldacci presents the human development approach developed by Amartya Sen and Martha Nussbaum, which conceives of development as the expansion of individuals' substantive freedoms. From this perspective, freedom is understood as the capability to achieve the kind of life one considers worth living. The concept of *capability* makes it possible to integrate the *life chances* theorised by Ralf Dahrendorf, showing that it is not enough to have resources or formal rights: one must also possess the internal capabilities to turn them into actual functionings.

Within this framework, school competences take on the meaning of internal capabilities that make it possible to convert opportunities into real life possibilities, freeing education from direct subordination to the productive system.

5. General education, work and democracy

Drawing also on the thought of Karl Marx, Baldacci contrasts vocational training with a general education, geared to developing habits of mind able to adapt to continual technological and social change.

The school is thus called to project the formation of the human being into two great spheres, work and democracy, without being reduced to an instrument serving the immediate needs of the market.

6. The teaching level

At the level of teaching, Baldacci proposes integrating individualisation and personalisation. Individualisation aims to ensure that all pupils reach a common threshold of fundamental knowledge and competences, while personalisation allows each pupil to develop their own formative goals. These two dimensions are not alternatives but complementary.

The transmission of knowledge remains essential for cultural continuity, but it must be accompanied by experiences of research, problem solving and the production of pieces of work. Through such practices, students develop habits of mind linked to disciplinary inquiry, which contribute to the formation of general and flexible cognitive strategies, the fruit of indirect and long-term processes.

7. The institutional level

At the institutional level, Baldacci criticises the model of the school as a company, which tends to turn the school into a merely instrumental organisation, characterised by hierarchical structures and managerial logic. As an alternative he proposes the model of the school as a community, understood as a place for sharing meanings and democratic values.

From this perspective, the role of the head teacher is pedagogical rather than managerial. The head teacher is called to foster teachers' professional growth and their informed participation in decision-making, promoting not only organisational efficiency but above all the formative effectiveness of the school.

8. The ethical level: equity and merit

Finally, Baldacci addresses the relationship between equity and meritocracy. A just school must first and foremost guarantee equality of educational opportunity, ensuring that everyone possesses the fundamental knowledge and competences needed to compete on equal terms.

Only once these conditions have been guaranteed can and must genuine merit be recognised and valued.

4. *The Anxious Generation*, Jonathan Haidt

Introduction. Brief summary

Jonathan Haidt's book *The Anxious Generation*, published in 2024, analyses the marked deterioration in adolescent mental health from the early 2010s onwards, a phenomenon that appears simultaneously in many Western countries and particularly affects Generation Z. The author argues that this deterioration cannot be explained by the economic, political or cultural factors traditionally invoked, but is linked to a profound rewiring of childhood and adolescence. The central thesis of the book identifies two converging trends: on the one hand, the overprotection of children in the real world; on the other, a substantial lack of protection in the digital world. According to Haidt, this combination has produced a 'phone-based childhood', characterised by a drastic reduction in the embodied, synchronous and socially rich experiences that are fundamental for healthy development. The author traces the historical shift from a childhood based on free play to a childhood mediated by the smartphone, showing how the spread of devices connected twenty-four hours a day and of social media has profoundly changed the ways in which adolescents relate to others, learn socially, manage their emotions and build their identity. The book is divided into four parts: the empirical analysis of the tidal wave of psychological distress; the historical and cultural background; the identification of the specific harms of digital childhood; and, finally, a series of practical proposals for families, schools, institutions and technology companies.

Main themes addressed in the book

1. Adults and minors: the usefulness of social media for adults, the vulnerability of pre-adolescents

Haidt draws a sharp distinction between the use of social media by adults and by minors. He stresses that the platforms can be useful to adults and valued by them (for information, work, relationships, shopping, political organisation), while acknowledging that adults too can develop forms of addiction. The decisive difference, for the author, concerns minors: in pre-adolescence and at the onset of puberty young people are particularly vulnerable, because the brain areas linked to reward mature earlier, while the frontal cortex (self-control, delayed gratification, resistance to temptation) reaches full maturity later. This is why Haidt compares early access to social media with practices that society restricts for minors (tobacco, alcohol, gambling): for adolescents the '***costs***' are higher and the benefits lower than for adults.

2. 'Growing up on Mars': Gen Z's puberty with a 'portal' in their pocket

The author presents Gen Z as the first generation to go through puberty always carrying a device that draws them away from the relationships close at hand into an 'alternative universe', perceived

as exhilarating but unstable, addictive and unsuitable for children and adolescents. In that digital setting, social success requires continual work managing one's personal brand, which is needed to win peer approval and to avoid online shaming. Haidt describes the habit of spending hours scrolling through content posted by friends, acquaintances and influencers, and watching autoplay videos served up by algorithms designed to maximise time online; at the same time, the time and quality of face-to-face interaction (playing, talking, looking each other in the eye, contact with family and friends) diminish.

3. The central thesis: overprotection in the real world and underprotection in the virtual world

The book attributes the 'anxious generation' to two simultaneous dynamics:

- Overprotection in the real world, with restricted independence and the decline of free play.
- Underprotection in the virtual world, with early access to smartphones and social media platforms and a digital ecosystem that exposes young people to social pressure and addictive mechanisms.

4. The 'real world' and the 'virtual world': structural differences in interaction

Haidt defines real-world relationships by four features: they are embodied; synchronous; mainly one-to-one or one-to-several, with only one interaction at a time; and located in communities with a high bar for entry and exit, which motivates investment in relationships and the repair of conflicts.

The virtual world, according to the author, has the opposite features: disembodied interactions (possible with AI too), often asynchronous (posts and comments), many one-to-many communications in parallel, communities with a low bar for entry and exit (blocking, logging off), and more 'disposable' ties. This difference in relational architecture is central to his explanation of the effects on childhood and adolescence.

5. The wave of distress since 2010: patterns, indicators and the scepticism discussed by the author

Haidt describes the rise in anxiety, depression and self-harm from the early 2010s, with a greater impact on girls and a more complex pattern for boys (often smaller increases, except for suicide, and sometimes earlier ones). He points out that the growth concerns above all internalising disorders (anxiety, fear, sadness, hopelessness, rumination, withdrawal) and that, since 2010, both sexes have shown more internalising and less externalising.

He addresses three grounds for scepticism (self-reporting, greater willingness to report diagnoses, the possible pathologising of ordinary distress) and points to indicators that are not self-reported: visits for psychiatric care, hospital admissions for self-harm and trends in suicide; he reports that self-harm among adolescent girls rose sharply between 2010 and 2020 and that suicide rates are higher among boys.

6. The 'second wave' of the internet: smartphones plus social media as the turning point

The author distinguishes a first phase (the 1990s to 2001: computers plus the internet) with no evident negative effects on young people's mental health, and a second phase (2012–2013) in which the combination of smartphones and social media coincides with the rapid deterioration, especially among girls. He reports data on uptake: in 2011 many teenagers had a mobile phone but few had a smartphone; by 2016 the share of smartphones among teenagers, and also among children aged 8 to 12, had grown significantly. He describes the increase in screen time (several hours a day) and the growth in the number of adolescents who are 'almost constantly online' from 2015 to 2022. He also mentions certain technological and platform developments (the front-facing camera, the launch and spread of Instagram as a mobile app, the selfie-plus-social-media ecosystem) as factors that rapidly transformed social habits, emotions and sleep.

7. The decline of play-based childhood: three evolved motivations (free play, attunement, social learning)

Haidt argues that evolution has 'prepared' children with three motivations that serve their development:

- Free play: activity chosen and directed by the participants and undertaken for its own sake; the author insists on the importance of physical outdoor play, including a modicum of risk, as a natural training ground for social skills and emotional self-regulation.
- Attunement: *serve-and-return* interactions (turn-taking and timing) and, as children grow, experiences of synchrony and ritual (doing the same thing together), regarded as deep components of human relationships and necessary for children.
- Social learning: conformity bias (imitating what is most common) and prestige bias (imitating those who appear most successful). According to the author, social networks 'hijack' this learning by directing attention towards influencers and weakening the culture of the family and the local community.

8. 'Experience blockers': overprotection and smartphones as reducing the embodied experiences young people need

Haidt describes smartphones and overprotection as 'experience blockers': they make it harder to have the embodied experiences young people need (risky play, cultural learning, rites of passage, romantic relationships). The book also links this approach to a thesis that recalls cognitive behavioural therapy: in emotional development what matters above all is '***experience***', more than information imparted by adults.

9. Antifragility, defend mode and safetyism: why 'risky play' is considered necessary

The book introduces two modes of the brain: discover mode (approaching opportunities) and defend mode (protecting against threats). Haidt states that young people born after 1995 tend more towards defend mode, with vigilance and alertness consistent with anxiety.

He argues that children are 'antifragile': to develop strength and self-reliance they need to encounter obstacles, failures and small shocks. Overprotection interferes with this process and fosters fragility and anxiousness. Safetyism is defined as the worship of safety above all else: an attitude that hinders learning how to manage risk, conflict and frustration. The attachment system is also discussed: anxious parenting keeps children too close to the 'secure base', reducing the experiences needed for growth.

10. Puberty, stress and the transition to adulthood: acute and chronic stress and the 'ladder' of responsibility

Drawing on Laurence Steinberg, Haidt describes adolescence as a phase of greater vulnerability to the effects of prolonged stress, which can encourage disorders such as generalised anxiety and depression. He distinguishes chronic stress (more harmful) from acute stress (brief, typical of ordinary conflicts) and recalls an 'inverted U' relationship between stress and well-being: a little stress can be useful, too much is harmful. The author also observes that online, age tends to become 'irrelevant', whereas in the real world age marks progressions and transitions; he therefore proposes the idea of norms or milestones (for example, the even-numbered birthdays from 6 to 18) associated with new freedoms and responsibilities, to support a sense of a step-by-step path.

11. The four foundational harms of phone-based childhood

Haidt groups the effects into four main harms:

- Social deprivation: a drastic fall in time spent in person with friends; for the United States the book reports a collapse in face-to-face time between 2012 and 2019, and stresses that social distancing predates the pandemic.
- Sleep deprivation: a deterioration in quantity and quality immediately after the switch to smartphones; longitudinal studies and the known effects on mood, learning, performance and safety are cited.
- Attention fragmentation: frequent notifications and constant interruptions reduce the possibility of thinking without distraction; the author links fragmentation, in cases of problematic use, to interference with the development of executive functions.
- Addiction: the use of behaviourist techniques to 'hook' users; the dopamine dynamic (pleasure without lasting satisfaction, increased craving) and the resemblance to slot-machine mechanisms are discussed; withdrawal symptoms such as anxiety, irritability, insomnia and dysphoria are cited.

12. Why social media harms girls more: social comparison, reputation, emotional contagion and the risk of harassment

Haidt argues that social media harms girls more and cites evidence from correlational and experimental studies: reducing or giving up social media for a few weeks is associated with improvements in mental health; 'quasi-experiments' (the arrival of Facebook at universities or of high-speed internet in particular areas) show declines in mental health above all among girls and young women.

The reasons given include:

- girls' heavier use of social media and preference for visual platforms (Instagram, TikTok), which are more exposed to social comparison;
- greater sensitivity to visual comparison and to judgements about face and body; reference to the 'sociometer' (an internal gauge of social standing) and to 'socially prescribed perfectionism';
- aggression among girls that is more often relational or reputational: social media extends the tools for damaging relationships and reputations;
- greater emotional sharing: with hyperconnectivity, girls with anxiety or depression can influence others; reference to vulnerability to 'sociogenic' illnesses (driven by social influence);
- the greater ease with which men can approach or stalk girls and behave badly without immediate consequences; pressure to share sexual images; contact from older men.

The author describes social media as a 'trap' that promises connection and communion but multiplies relationships while lowering their quality and making it harder to spend time with close friends in real life; he links this to the rise in loneliness among girls in the early 2010s.

13. What is happening to boys: withdrawal into the virtual, failure to launch, pornography and video games

Haidt states that boys too became more depressed and anxious in the early 2010s, but places the phenomenon within a longer trajectory: a slow decline (since the 1970s) in achievement and engagement at school, at work and in the family. According to the author, boys shift time and investment from the physical world to the virtual one; the risk of 'failure to launch' (NEET) increases, and extreme cases of social withdrawal (hikikomori) are cited.

The book also points to:

- a change in patterns: an increase in internalising traits and greater risk avoidance (even more than among girls);
- the role of the smartphone in moving social life online and in the decline in well-being;
- the impact of unlimited free access to pornography, interpreted as satisfying desires without developing skills useful for the transition to adulthood;

- video games: recognition of their benefits but also their risks, especially for a subgroup (around 7%) that develops problematic use or addiction, with worsening mental and physical health, family conflict and difficulties in other areas;
- the 'quantity versus quality' dynamic of online interaction: more interactions but lower quality, with growing loneliness; for some, video games strengthen real groups, for others they facilitate withdrawal.

14. Community, norms and anomie: unstable networks and the loss of meaning

Haidt argues that the Great Rewiring draws young people away from real communities (families included) and produces a childhood spent within multiple, shifting networks. The result would be '***anomie***' (normlessness), because a binding moral system cannot form if context and members change continually. Drawing on Durkheim, the author links anomie to despair and suicide, suggesting that, albeit by different paths, boys and girls arrive at a sudden increase in the feeling that life is 'meaningless'.

15. 'Spiritual degradation' and elevation: effects on children, adolescents and adults

In part three Haidt concludes with a reflection on how phone-based life alters everyone (children, adolescents and adults), describing a 'downward' movement in a dimension he calls spiritual; he also notes that he presents '***six ancient spiritual practices***' that help people to live better (with no further details in the notes provided).

16. The book's practical proposals (families, schools, governments, companies)

a. The four 'foundational' reforms

Haidt proposes four basic reforms for a healthier childhood in the digital age:

1. '***no smartphones before high school***' (before the age of 14: basic phones, with limited apps and no browser);
2. '***no social media before 16***';
3. '***phone-free schools***' during the school day (phones and connected devices stored in lockers or locked pouches);
4. **far more unsupervised play and independence.**

b. What governments and technology companies can do

The book holds governments responsible both for overprotection in the real world (over-zealous enforcement of vague neglect laws) and for underprotection online (ineffective and outdated legislation). It proposes laws like those in the United Kingdom that impose an additional duty of care on companies towards minors, and suggests raising the age of internet 'adulthood' to 16. It also calls for

better age-verification features and for tools that allow parents to set devices as unsuitable for age-restricted content until their children are old enough. For the real world, it suggests narrowing neglect laws and encouraging free play and recess; it also calls for investment in vocational training and programmes to support, in particular, boys' transition to adult life.

c. What schools can do

Haidt proposes two major interventions that can be implemented immediately at minimal cost: an effective ban on phones (not only in class but throughout the school day, with phones stored in lockers or locked pouches) and the transformation of schools into 'play-full schools'. He gives examples such as the Let Grow Play Club (phone-free afternoons, loose parts and minimal supervision) and the Let Grow Project ('doing something you have never done on your own before', agreed with parents) to increase competence and independence and reduce anxiety. He also calls for measures to engage boys (more workshops and vocational training, more male teachers) and for a preventive approach from primary and lower secondary school onwards.

d. What parents can do

Haidt uses the metaphor of 'carpenter' parents (who shape) versus 'gardener' parents (who create a space in which to grow). In the real world, he sets as priorities more unsupervised free play and gradually increasing independence; in the virtual world, delaying full entry into phone-based childhood (later smartphones, coordinated with other parents). He also suggests settings that strengthen roots in the real world (technology-free summer camps, camping, activities with peers without smartphones, part-time jobs, exchange programmes, outdoor activities, a gap year). He mentions recommendations for limiting screens in early childhood, the use of parental controls and the creation of device-free zones and times, as well as vigilance for signs of addiction or problematic use.

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Index of concepts

The page references point to significant discussions in the chapters and appendices, not to every occurrence. The explanations in brackets clarify how the concepts are used in this report.

A

academic integrity [Honesty in declaring the use of AI, sustained by inner motivation.]....91, 188, 189
active teaching [Designed experiences that engage students, without methodological automatism.]....88, 89
adult stepping back [as intentionally leaving space while remaining present, taking on trust and risk.]....44, 45, 154
affective learning [Knowledge received within a relationship that offers personal meaning.]....132, 135
age of access to technology [as an open educational question, to be graduated with protection and accompaniment.]....71, 198, 199
agentic AI [Proactive systems to which actions are delegated, raising new questions of responsibility.]....66, 119, 188
AI hallucinations [False outputs to be recognised through questioning and checking sources.]....69, 145
algorithmic profiling [Calibrating and measuring the subject in ways that can reduce the richness of identity.]....134, 209
antifragility [as the need for small risks in growing up, in Haidt's reading.]....231
appropriation of knowledge [Making knowledge one's own, rather than receiving or reproducing information.]....90, 135, 191
artificial intelligence [as a transformation of knowing and of relationships, not a mere technical resource.]....17, 37, 38, 211
assessment dialogue [Personal feedback on progress, difficulties and goals, beyond the mark.]....153
authenticity and profile [as the tension between building the self and a designed digital representation.]....21, 210, 211

B

basic trust [Foundational relationships that recognise worth and possibility beyond performance.]....21, 210, 212

C

capability and human development [Inner capacities that turn formal opportunities into real possibilities for life.]....226
chatbots and artificial companions [Digital interlocutors that can appear to replace occasions for human relationship.]....23, 166, 186
cognitive activation [as a criterion for judging whether AI makes students think more.]....65, 123
cognitive delegation [The outsourcing of activities, which can impoverish the processes that learning needs.]....16, 133, 138, 139
cognitive effort [as the work of thinking, to be safeguarded when it supports understanding.]....134, 139, 192
cognitive *empowerment* [the strengthening of cognitive capacities.]....210, 215
cognitive pride [Valuing one's own intellectual voice as a safeguard against delegation.]....41, 189
cognitive surrender [Giving up one's own thinking instead of engaging critically with AI.]....66, 188
communities of practice [Ongoing exchange among teachers that supports learning and professional development.]....98, 164, 165
conceptual learning [Understanding principles and relationships beyond execution and memorisation.]....15, 99
cosmotechnics and technodiversity [Techniques rooted in different cosmologies and systems of meaning.]....182
crisis of desire [Inner energy and direction threatened by the immediate succession of stimuli.]....27, 28, 181, 182
critical thinking [Connecting, questioning and evaluating information to build understanding.]...69, 206
cura personalis [Care for the whole person, beyond academic performance alone.]....48, 162

D

deculturation [The breakdown of shared frameworks of meaning in the context of technical efficiency.]....174, 175
deep learning [Meaningful processing, as distinct from the mere superficial acquisition of information.]....15, 99
desirable difficulties [as productive challenges that make students think, distinct from pointless obstacles.]....192
deskilling [The risk of losing competences repeatedly entrusted to the machine.]....18, 213
digital citizenship [Critical and ethical responsibility in relationships and in the use of data.]....42, 57, 198
digital competences [Critical and educational capacities that presuppose solid basic skills.]....198, 202
digital divides [Differences in the use of digital tools.]....75, 205

digital natives [Familiarity with devices, which does not guarantee critical literacy.]....16, 199, 202, 203
digital restraint [Graduated use of devices according to age and educational purpose.]....87, 88
discerning foresight [Exploring possible futures in order to guide present decisions together.]....193, 194
dystopia [as narrative exaggeration that makes reductions and possible educational gaps visible.]....130, 131, 141

E

early school leaving [Dropping out and the loss of meaning of the school pathway.]....55, 197
educational conflict [as a difficulty to be worked through with support, without creating a hostile environment.]....73, 153
educational convocation [as a proposal of shared work to which the student adheres with interest.] 43, 147
educational experimentation [as small pathways to be reviewed and revised according to the quality of learning.]....86
educational pact [as the need to make the idea of school explicit and share it with families.]....101, 137, 215
educational relationship [A transformative encounter between the teacher's initiative and the student's personal adherence.]....45, 46, 135
emotional literacy [Understanding emotions without skipping the step of judgement.]....45, 132, 133
error and learning [as an opportunity for revision and discovery, not only an outcome to be penalised.]....19, 180, 224
experience, reflection and action [A summary of the Ignatian process linking lived experience, personal rereading and present commitment.] 82, 136, 187
extended mind [The integration of external supports into the cognitive process, with the subject remaining the agent.]....68, 138

F

formative assessment [Descriptive feedback and participation that support learning and transformation.]....59, 152, 224
formative feedback [Descriptive feedback on work that guides revision and progress.]....99, 100, 152
fragmentation of subjects and timetables [The separation of knowledge and short time slots that hinder lasting connections.]....54, 55, 147
furor sanandi [The illusion of resolving and controlling every outcome of the educational process.]....62, 143

G

generative AI [Dialogic interaction with knowledge, to be subjected to critical evaluation.]....17, 124, 125
governance of tools [Institutional choices on configuration, data, costs and conditions of use.]....91, 92

H

human dignity [The worth of the person, not conditional on performance or algorithmic comparison.]....21, 158, 212
human metaphor [Using AI as a critical interlocutor without abdicating one's own thinking.]....66, 188, 189
human relationships [Bonds with a history, limits and imperfections that cannot be removed by programming the other.]....24, 211, 212
human-machine hybridisation [as an already existing interweaving of cognitive functions, tools and ways of living.]....176, 178

I

Ignatian pedagogy [Pedagogy that refers to St Ignatius of Loyola and the Society of Jesus.]. .82, 162, 187
illusory listening [as apparent availability that avoids truly recognising the young person's identity.]....30, 107
implicit dropout [A diploma obtained without the expected competences, as discussed by INVALSI.] 58, 200
information and relational bubbles [Algorithmic selection that narrows discussion and encounter with those who are different.]....32, 130

L

learning by refraction [a contemporary rewriting of the Ignatian Pedagogical Paradigm.]....50, 51, 191, 195
living intelligence [Embodied thinking that includes affections, finitude, meaning and open questions.]....39, 40, 175, 177
loneliness [as a relational need to which the machine's availability offers an ambiguous answer.]....24, 178

M

mark fetishism [as the attribution of absolute value to a number, separated from learning.]....224
mathematical metaphor [as the need to protect the acquisition of a competence before allowing it to be automated.]....65, 187, 188
mature integrity [The adult capacity to open up experiences, talents and hope without blocking them.]....29, 212
measured enthusiasm [Openness to AI combined with continuous discussion and attention to risks.]....186
metacognition [Awareness of one's own processes and ways of learning, including in the use of AI.] 67, 90, 122

N

networked thinking [Widespread connections between fields of knowledge and contexts, beyond linear sequence.]....15, 96
non-neutrality of technology [Technical choices and uses embody interests, values and cultural conditions.]....10, 37, 38, 159

O

otherness [An encounter with another who cannot be reduced to a controllable interlocutor.]…211, 212, 215

P

parental control [as surveillance that can hinder autonomy, separation and educational trust.] 32, 145, 146
personal data [any data that can be used to distinguish, trace or identify a specific individual.]....91, 92, 198
personalisation [Personal pathways and goals, discussed within the relational dimension of learning.]....73, 127, 128, 190, 227
phármakon [Technology as remedy and poison, to be understood in its ambivalence.]....14, 171
phone-based childhood [as the reconfiguration of bodily and social experience in Haidt's thesis.]....22, 228
process and product [as the distinction between the transformation brought about by learning and the quality of the final piece of work.]....67, 187

Q

quantified self [Personal worth measured through data, images and external reactions.]....21, 210

R

reductionism [The reduction of the person and of intelligence to functions, calculation and performance.]....20, 131, 173
relational withdrawal [as recourse to a chatbot that takes away occasions for relying on other people.]....25, 166
reverse mentoring [A formative exchange between generations and competences, not a mere reversal of roles.]....87

S

school as a community [A shared place of meaning and relationships, not merely a productive organisation.]....48, 49, 227
school as cognitive resistance [Safeguarding the body, doubt and relationship in the face of the pressure of technical immediacy.]....43, 176, 177
slow time and useless time [Space for boredom, mistakes and depth that cannot be reduced to efficiency.]....16, 134, 151
social individualisation [Lives centred on the individual within less stable community reference points.]....29, 172
social learning [Imitation and community relationships in Haidt's evolutionary reading.]....230
socio-technical networks [An interweaving of people, technologies, rules and practices to be observed together.]....122, 123
student agency [The capacity to remain an active subject of one's own process of knowing.]....98, 138
symbolic adulthood [An adult presence able to hand on trust in the world and hope.]....29, 30, 212, 214

T

teacher agency [Personal autonomy and responsibility in pedagogical choices that cannot be delegated.]....85, 187, 191
teacher training [as reflective and relational development, not mere instruction in tools.] 84, 164, 165, 195
teaching that starts from questions [Starting from questions and goals, not only from content to be covered.]....55, 56, 90
technological literacy [Understanding how tools work, their limits and implications before using them.]....145, 179, 184
thinking body [The unity of the person who learns by living bodily experiences and relationships.]....19, 131
transversal competences [Capacities observable in complex real-life situations, not additional isolated subjects.]....59, 149
trust in the adult [Reliance on a consistent educational presence, which technical availability cannot replace.]....28, 127, 184

U

Universal Design for Learning (UDL) [A methodological and educational framework for designing flexible and inclusive learning environments.]....63, 101
universal destination of goods [Goods, cultural ones included, accessible to all and not reserved for a few.]....11

'A school does not exist to preserve itself, but to respond courageously to the challenges of the present and the future'

– Pope Francis

This dossier traces the path of a research project that began within the Istituto Leone XIII and grew through dialogue between the school, academic research and different areas of expertise. It is now entrusted to the schools of the network of the Euro-Mediterranean Province of the Society of Jesus as a tool for study, formation and work: not to offer definitive answers, but to continue experimenting and discerning together ways of safeguarding and serving the human person as they grow, in a time of digital transformation and artificial intelligence.

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