SEPTEMBER 30, 2023

Italian Digital
Media Observatory

IDMO – DIGITAL MEDIA LITERACY GAPS AND NEEDS

Co-financed by the Connecting Europe
Facility of the European Union

Co-financed by the Connecting Europe Facility of the European Union

IDMO - DIGITAL MEDIA LITERACY GAPS AND NEEDS

In collaboration with

LUISS Data Lab

Disclaimer

This report was written as part of the Italian Digital Media Observatory project under EC grant agreement INEA/CEF/ICT/A2020/2394428. The information, documentation and figures available in this deliverable were written by the Italian Digital Media Observatory project consortium and do not necessarily reflect the views of the European Commission. The European Commission is not liable for any use that may be made of the information contained herein.

Statement of originality

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation, or both.

Credits

- RAI UFFICIO STUDI: directed by Francesco Giorgino, edited by Alessandra Paradisi, with the collaboration of Alessandra Pratesi
- T6 ECOSYSTEMS: edited by Simona De Rosa, with the collaboration of Andrea Ancona, Andrea Nicolai and Chiara Pirozzi
- TIM: edited by Felicita Di Rosa, with the collaboration of Maria Grazia Guidone
- LUISS: translation by Salvatore Custureri

How to quote this document

IDMO (2023), *Digital Media Literacy Gaps and Needs*

Index

List of figures and tables

Executive Summary

Objective of this research on digital needs, edited by Rai, T6 Ecosystems and Tim, in collaboration with LUISS and with the institutional support of the Ministero dell'Istruzione e del Merito, Direzione generale per i fondi strutturali per l'istruzione, l'edilizia scolastica e la scuola digitale, was to investigate, with the support of a survey aimed at the school world, the needs and requirements of teachers and students in terms of Media Literacy in order to provide useful recommendations for educational paths schools and a wide-ranging educational offer.

The need for a targeted Survey rests on the fact that, at least in its most advanced form, Media Literacy is still a young teaching subject, mostly included in the teaching hours reserved for civic education (digital citizenship), recently reintroduced in schools. It is therefore natural that there is not yet a consolidated literature on the subject, even if there are numerous and meritorious initiatives developed at an academic level and by qualified associations of teachers and trainers to promote and spread digital culture and Media Literacy on everything the national territory, within the framework of actions for digital citizenship.

When we talk about digital innovation within schools, therefore, we must think about a real change in programs and methodologies that calls into play the digital skills of teachers and students, listening to the voices of the protagonists to know the needs and requests of those who work and live in the world of school. Hence the need to develop a Survey based on a questionnaire to be distributed in schools.

Research on Digital Media Literacy gaps and needs is the natural complement to Media Literacy versus Fake News Research (MLvFN)[1] which, by providing, among other things, the definitive framework of reference, has outlined the areas of in-depth analysis covered by this Report and, in particular, by the questionnaire used for the survey.

Compared to a functionalist vision of Media Literacy, the definition taken up in the MLvFN Research and which is proposed here, in line with the approach adopted by the European Commission in 2007 (Communication 2007/883/CE), sees Media Literacy as a key factor of digital citizenship, i.e. as "*the ability of an individual to consciously and responsibly make use of virtual means of communication*" and with the ability to develop a critical sense towards the information received, transforming from a passive receptor of information into an active subject .

It is in this interpretation that Media Literacy is combined with Media Education, becoming a fundamental prerequisite for countering the risks of misinformation.

From this analysis it emerges that the digital skills gap can only be overcome through Media Education actions that go beyond some limits of Media Literacy, which risks shifting some system responsibilities onto the individual. This is because digital skills require cultural, political, and social contextualization, for "*the exercise of full, active and informed citizenship*". Furthermore, the

[1] https://www.idmo.it/2022/05/19/fake-news-rai-cattolica/

importance of standardizing teaching paths both for Digital Literacy and, even more urgently, for the teaching of Media Literacy.

The complexity of a fact-finding investigation carried out by subjects external to the scholastic world, was acknowledged by the authors of this Research, and the difficulties encountered, are an integral part of the fact-finding process and analysis and constitute useful lessons for the purposes of similar future initiatives.

Preface - Francesco Giorgino

We live in an era of rapid and continuous transformation. Changes are occurring at such an intense and widespread pace that only truly conscious and flexible approaches, together with rigorous analytical methodologies of macro and micro socio-cultural phenomena, can produce sharp and forward-looking photographs of the relevant context.

Post-modernity, moreover, is a paradigm that the social sciences (from different disciplinary spheres) have recently declined through various conceptual categories starting precisely from the impact of *digital transformation* in the collective and individual dimensions: horizontality versus verticality; culture of the result versus the generic concept of performativity; complexity versus complication; individual micro-narratives versus collective macro-narratives, as Jean-François Llyotard put it; individual versus person; determinism versus probabilism. In relation to the latter, I think it is worth pointing out that the probabilistic approach is one thing; the deterministic approach is quite another. As the Toronto School teaches, from Harold Innis onward, technological determinism hands over to the *tèchne* the task not only of accompanying social change, but even of determining it to the point of producing evident consequences in disparate areas, in structures and superstructures, which, precisely for the reasons just stated, give rise to reciprocal processes of substitution especially in terms of positioning within the most significant value hierarchies.

Among the sectors that have certainly felt and are feeling the influence of digital is *education*. As economist Joseph Schumpeter argued many years ago, innovation can be "process" and/or "product" innovation: the former is certainly more complex than the latter, but also more challenging to address and manage. With process innovation, in fact, one grasps the value, but also the problematic nature of changes in production logic, *mindset*, *problem solving* modes, and organizational models.

It is within this framework, at once epistemological and empirical, that the topic of *Media Literacy* fits. It was the European Commission itself that gave a clear definition of this expression that has now entered common parlance, meaning "the ability to access media, to understand and critically evaluate different aspects of media and their content and to create communications in a variety of contexts." In this definition, which is semantically very capacious, reference is therefore made to the ability - the result of knowledge and skills - to "access," to "understand," and to "evaluate". These are three verbs that signal a conscious attitude of the users of the platforms through which content is produced and reproduced, often according to the cynical laws of virality. We are, after all, in the age of the *platform society* to use a scientific label dear to sociologist Jan van Dijk, but we are also dealing with the philosophy of the *content continuum* within contexts of production and reception that have radically altered the posture of the audience. Indeed, the latter has moved from the hyper-passivity of the 20th century (as certified by the suggestive socio-psychological theory of the "magic bullet" as early as the late 50s) to the hyper-activity and even inter-activity of the first decades of the 21st century. Interactivity and hyperactivity are situations both documented by the experience of the co-creation of content by the emitters and receivers of the communicative process, at least according to the old (but still relevant) conceptual scheme proposed by Harold Lasswell. A process that evidently has not spared the world of schooling (how could it?), albeit within the broader and more general *framework* of juxtaposing the horizontal sequences of knowledge transfer and acquisition

with the more vertical and linear ones of the past, according to a scheme that provides, along with the commitment of those involved in training on the teaching side, a greater responsibility of those intent on presiding over the dynamic territories of learning.

It is basically the idea of responsibility delivered to us by Max Weber, that is, the ability (and thus the sensitivity) to assess the consequences on others of one's communicative actions, wanting to remain anchored in the taxonomy of Jurgen Habermas and his scientific theory.

Teaching and learning are two sides of the same coin, in the same way that "digital skills" on the one hand and "digital culture" on the other are two sides of the same coin. The latter, moreover, also relevant because of the obvious anthropological and pedagogical implications involved, given that digital man is certainly very different from analog man: our cognitive systems have changed; the way we experience emotions has changed; the way we observe reality has changed, but also the way we work and the way we are consumers and citizens; we human beings have become "media"; we produce and at the same time undergo enormous amounts of data; our intelligence is increasingly measured by artificial intelligence and *machine learning*, net of the most recent oxymoronic provocation carried out by Noam Chomsky; the Internet of Things has flanked the Internet of People; and so on.

In Idmo's research edited by the Rai Ufficio Studi, which I have the honor of directing, together with T6 Ecosystems and Tim, in collaboration with LUISS, a significant analysis of digital *gaps* and *needs is* developed, starting precisely from the concept of "digital competence". A concept that in the initial pages of this work is declined by virtue of the different areas of intervention, also through the use of a diachronic methodology elaborated on the basis of the need for a reconstruction of the normative, European and national dictate. All according to an application trajectory that goes from the basic to the advanced level, passing, of course, through the intermediate level.

From this point of view, the advantage of a shared reflection and action in which the different agencies of secondary socialization and the different educational agencies stand side by side, in the perspective of a full exploitation of the two most relevant strands of research: "educating to the media" and "educating with the media," is quite evident. In the first case, it is a matter of socializing to the languages, formats, and production modes of the media, but also to their way of affecting knowledge. In the second case, on the other hand, it is a matter of maturing once and for all the conviction that in the late-modern era even media and news-media content contribute to education and culture, the latter word proposed in these lines not as "genre" but in the broader meaning of "universe of knowable knowledge". A necessary operation, all the more so if the reasoning is developed around Generation Z. So, a shared reflection and action, also with the intention of designing and implementing a real educational alliance. An alliance that can only be initiated by acknowledging the need to place *Media Literacy* and *Media Education* programs within the school curriculum, certainly with more strength and consistency than in the past. An option that must be implemented without running the risk of their marginalization from the lessons enjoyed by students on traditional subjects and without, at the same time, running the risk of an underestimation of these knowledge/skills by teachers.

Digital culture differs from digital skills precisely because, while starting from the knowledge and know-how needed to manage the transformative processes triggered by this major technological transition, it recovers the most authentic meaning of value frameworks, normative principles,

practices of meaning, and experiences of participation and sharing, emphasizing the individual and the group, individuality and at the same time the community and, therefore, society as a whole.

The research the reader has in his or her hands maps the digital needs of Italian teachers and students in order to develop recommendations that will be able to facilitate a rapid and complete transition from the sphere of good intentions to that of consequent actions and concrete results. There were more than a thousand secondary school students involved, as well as more than three hundred teachers who agreed to answer the twenty questions administered to them over the course of 2023. So, a significant sample that allows, also thanks to the collaboration with the Ministero dell'Istruzione e del Merito, to take a reliable snapshot and to elaborate a picture of the future lines of intervention, of the necessary and urgent profiles of collaboration among the actors involved, of the *issues of* greatest social impact, and of the cause/effect relationship of many of the *items* related precisely to the model of *Media Literacy*.

One of the terrains on which it is possible to measure the impact of this multi and interdisciplinary approach, an approach that does not renounce the power of contamination of knowledge and experience, is represented by the contrast to what the scientific literature and the lexicon of European institutions have been defining for some time now with the category of "*information disorder". A* category that in concrete terms can be divided into three defining macro groups: *disinformation*, i.e., that situation created when false or plausible information is intentionally shared in order to create harm to someone; *misinformation*, i.e., that situation created when users are unaware that they are publishing false content; and *misinformation*, i.e., the dissemination of authentic information in order to create harm (e.g. public disclosures of private information). Countering *information disorder* comes primarily through the ability to govern the pitfalls associated with the blurring of the boundary that exists between the true and the false and the much more insidious and widespread boundary between the true and the plausible.

It is the raising of critical spirit on the part of students, the increased awareness on the part of students and teachers of the risks associated with the proliferation of digital content, some of it without ascertained authorship, and the determination of the cultural and educational systems to carry out activities to discern true content from false or plausible content that make *Media Literacy* one of the most useful and high-performing tools. A task that Rai, as Italy's public service broadcasting company, carries out with conviction and determination, also in order to make a qualified and authoritative contribution to the management of galloping disintermediation and the contrast, precisely, of *fake news* while respecting political, cultural, value, social, and territorial pluralism.

As Manuel Castells argues, one of the most important transformations in recent decades is the slippage of mass communication into mass self-communication. We are in the midst of an interactive communication process, which has the potential to reach a very large audience, but in which message production is self-generated, message retrieval is self-determined, and the reception and re-production of content by electronic communication networks are self-selected. Castells reminds us that horizontal communication networks and unidirectional forms of communication such as television, radio, and the mass press have for years been engaged in a series of actions and reactions that are the result of functional hybridization, essentially giving rise to a mixed system that uses the flexibility of digital technology to move from a generic and uniform hypertext to a diversified and individualized "my text". Which ultimately means "my hypertext", "my prime time", my self-selected agglomeration of images and words, etc.

The opening of the new school year (moreover, the first with the use of generative and conversational artificial intelligence) has seen a stance taken by the Swedish government that certainly cannot be underestimated in this analytical forum. Education Minister Carlotta Edholm, after noting from the *Progress in International Reading Literacy Study* research the declining achievement of students in her country, has decided that they should use hard copy textbooks and reduce the use of tablets and computers in order to get used to handwriting. On this point, the debate is very open and probably, as Pier Cesare Rivoltella argues in the elaboration of his "algorithmic pedagogy", in the face of the digital jungle we need to take more the path of hope than the path of fear. He, for example, urges us to move along three directions: to educate with artificial intelligence, including by developing assistive technologies as the European Union's "*EngageMe"* project demonstrates; to educate artificial intelligence, since we are not yet dealing with sentient machines and therefore it is also important to cultivate that strand called "algoretics" that guarantees, precisely, the added value of an ethical approach; and to educate on artificial intelligence through a computer and digital literacy activity that sees schools and families at the forefront. It comes back to the idea, mentioned earlier, of the educational pact. An idea that cannot fail to develop a clear *call to action* towards public service broadcasting and the university system.

I might add that Rivoltella's invitation, as well as that of many other scholars, translates at bottom into an exhortation to seek a third way between the old "apocalyptic"/"integrated" bipolarity, of which Umberto Eco long ago became the interpreter and spokesman. A third way that we might call of the "committed" to governing the ongoing digital change and transition.

It is there for all to see, especially for the new generations, the primacy of audiovisual and multimedia in the various forms of representation and narration of reality or specific segments of it. A primacy that has posed and poses also the issue of the possible distance that is created between reality as it is and reality as it is perceived, all the more so if this operation (highlighted in an age without either *mass* or *personal media* already by Immanuel Kant) is conducted by resorting to what Daniel Kahneman calls "fast thinking". Low-cognitive, intuitive, impatient, impulsive thinking, which is contrasted with the obviously elaborate and more thoughtful "slow thinking."

For years we thought that our choices were the result of mostly rational decisions. We had underestimated the weight of emotions, shortcuts and what he calls "inaccurate heuristics". We had also underestimated the weight of biased evidence.

Media Literacy gets people used to reversing course. It also trains one to pursue the goal of finding a balance, dynamic but still a balance, between fast thinking and slow thinking, but without stopping change, which is moreover unstoppable and at times necessary.

It is an operation that moves in continuity with the great challenges related to the transition from the old to the new millennium, with the need for each of us, young people and adults, to acquire the right antibodies. Antibodies that are, at the same time, technical and cultural.

Happy reading!

Francesco Giorgino is Director of the Rai Ufficio Studi and Anchor of the Rai 1 program "XXI Century". He teaches Content Marketing & Brand Storytelling, Political Marketing, Newsmaking at Luiss. He directs the Luiss second-level Master's degree in Political and Institutional Communication and Marketing.

Premise

The Research Digital Media Literacy Gaps and Needs is part of the Media Literacy actions envisaged by IDMO - Italian Digital Media Observatory, i.e., the national Media Observatory for countering disinformation.

The Observatory is created within the framework of the European call for proposals "The Connecting Europe Facility (CEF) - Telecommunication Sector" launched by the European Health and Digital Executive Agency (HaDEA)[2] on behalf of the European Commission CEF project co-funded at the European level (Agreement number: INEA/CEF/ICT/A2020/2394428 for the Action No 2020-EU-IA-0289 entitled "Italian Digital Media Observatory" (IDMO). The Italian Consortium sees the participation of LUISS (leader), Rai-Radiotelevisione Italiana, TIM, T6 Ecosystems, News Guard, Pagella Politica, Gedi, Tor Vergata University.

IDMO operates within the network of national hubs that support and implement the work of the European Digital Media Observatory (EDMO). Within this framework is the collaboration between the Rai-Radiotelevisione Italiana Ufficio Studi, TIM, T6 Ecosystems and Luiss. The scientific collaboration aimed to investigate, with the support of a field survey, the needs and requirements of teachers and students in terms of Media Literacy to provide useful recommendations for school educational pathways and broad educational offerings.

One of the tasks of the IDMO project was to give an overview of the state of the Media Literacy actions already in place in Italy. The work started by conducting an analysis of the Media Education context at the Italian level (school and national territory) and a specific focus on Media Literacy activities led by Rai. After that, the aim was to continue the investigation of Media Literacy gaps and needs in the secondary school conducting an in-depth analysis. The aim of the study was to collect evidence allowing IDMO to deliver recommendation on how to improve digital and media skills and capabilities for students and teachers.

To carry out such analysis, the process started by reviewing public policies on Digital and Media Literacy in Italy and at EU level (chapter 1). The strategies to improve Media Literacy actions conducted by other European hubs funded under the same IDMO program together with the topic of Media Literacy were then reported, reviewing the literature on methods and analysis tools (chapter 2). In chapter 3, after having retraced the evolution of the definition of Media and Digital Literacy in institutional and academic documents, the approach to investigating the state of gaps and needs in Media Literacy and digital in Italian schools. The results and main findings of the study were then reported. The Research ends with some considerations and recommendations for Italian policy makers to improve the curriculum for Media and Digital Literacy in secondary schools (Chapter 4).

[2] The HaDEA Agency, operational from 1-4-2021, is in charge of managing projects and funding from the Connecting Europe Facility (CEF)2 program and in particular, the telecommunications-related portfolio, which includes EDMO, active from June 1, 2020, and IDMO, active from September 1, 2021.

1. Public policies on Digital and Media Literacy

1.1. The European context

Since the 2000s, in a clear systemic design, major international organizations including the European Union[3] have been addressing the issue of the skills and competencies needed to ensure the development of citizens in the knowledge society, increasing their ability to adapt to change.

With this in mind, in 2006, the European Parliament and the Council of the European Union**,** in the wake of the OECD promoted 2003 study "*Definition and Selection of Competencies"* (De.Se.Co)[4], adopted the Recommendation[5] on the eight European key competencies[6] for lifelong learning. In it, member states are urged to develop *"the provision of key competencies for all as part of their lifelong learning strategies, including strategies for universal literacy,"* making use of the European "Key Competencies for Lifelong Learning" reference framework.

In the document, digital competence is identified primarily in functional terms: "*digital competence consists of being able to use information society technologies (IST) with familiarity and critical thinking for work, leisure and communication. It is supported by basic ICT skills: the use of computers to find, evaluate, store, produce, present and exchange information as well as to communicate and participate in collaborative networks via the Internet"*.

In parallel, the European Commission between 2000 and 2008 launched several initiatives to promote Digital literacy and Media Literacy[7] as part of a strategy to develop a knowledge economy. These initiatives culminated in the 2007 promulgation of the *European Audiovisual Services Directive*[8] by which Media Literacy was institutionalized as one of the measures to be promoted in all sectors of society (Recital 37).

And it was also in 2007 that the Commission clearly defined Media Literacy as "*the ability to access media, understand and critically evaluate different aspects of media and their content, and create communications in a variety of contexts"* (Communication 2007/883/EC)[9].

In 2010, the process of creating the *Digital Competence Framework for Citizens* (*DigComp)* is initiated by the Joint Research Centre (JRC) on behalf of the Directorate General for Education and Culture, which led to the publication of the first DigComp Framework 1.0 in 2013.

---

[3] See on this point Commission Communication: *Rethinking Education: Investing in Skills for Better Socioeconomic Outcomes* COM (2012) 669 final.
[4] Rychen and Salganik (2003).
[5] European Parliament and European Council (2006).
[6] The eight key competencies outlined by the DigComp Framework are: (*1) communication in the mother tongue; (2) communication in foreign languages; (3) mathematical competence and basic skills in science and technology; (4) digital competence; (5) learning to learn; (6) social and civic competencies; (7) initiative and entrepreneurship; and (8) cultural awareness and expression.*
[7] Among the major initiatives activated by the Commission in the early 2002: the *Safer Internet; e-Learning; e-Inclusion*; and MEDIA programs; the establishment of the High-Level Experts Group and the Media Literacy Expert Group; and the promotion of various studies and research: Understanding digital literacy, Public Consultation, Current trends and approaches to Media Literacy in Europe.
[8] European Parliament and European Council (2007).
[9] European Commission (2007).

In summary, with the DigComp framework, the JRC transposes the general definition provided in the Recommendation into a scheme with 5 focus areas and 21 specific competencies described on 5 dimensions.

The DigComp has become the conceptual model (framework) for achieving the EU's goals on improving the digital competencies of the entire population. Indeed, from 2013 to the present, the DigComp, in its updates, has been used for various purposes, particularly in the context of employment, education and training, and lifelong learning. Thus, the DigComp also provides the European reference framework for schools[10].

In addition, DigComp having made it possible to unify language at the European level to identify and describe key digital skills areas, it was adopted to construct the Digital Skills Indicator (DSI) and used to set targets and monitor the Digital Economy and Society Index (DESI)[11].

The DigComp 1.0 defines digital competence as a combination of 21 competencies grouped into five main areas (Information, Communication and Collaboration, Content Creation, Security, and Problem Solving). The DigComp 1.0 framework identifies three levels of mastery of each competency falling under digital competence (basic, intermediate, and advanced)[12] .

The DigComp is updated for the first time in 2016 with the DigComp 2.0 version, which revises the 21 competency titles and descriptors and modifies the five reference areas (information and data literacy; communication and collaboration; digital content creation; security; and problem solving), without changing the three competency levels.

In 2017, the new version DigComp 2.1 increased from three to eight the levels of mastery of the competency under the Framework (dimension 3) and offers new examples for the two scenarios - employment and learning - of applying the competency[13] (dimension 5 of the Framework)[14].

The tool is divided into five dimensions that allow its applicability in different educational or learning contexts: the first dimension consists of the Competency Areas that are part of the digital competencies; the second dimension is devoted to the competency descriptors and titles relevant to each area. The third dimension refers to the level of mastery of each competence; the fourth dimension deals with the practical examples of articulation of each specific competence, as defined by the Council of the European Union (DigComp 2.2:3) in terms of knowledge, skills and attitudes[15] ; finally, the fifth dimension deals with the use cases in which the competence can be exercised.

At the same time, as part of this articulated EU strategy aimed at all citizens, in light of the changes in the skills required in the international context, in May 2018, the Council of the European Union

[10] *https://www.schooleducationgateway.eu/en/pub/resources/publications/digcomp-22.htm*
[11] DigComp 2.2: available at: *https://publications.jrc.ec.europa.eu/repository/handle/JRC128415*
[12] https://competenze-digitali-docs.readthedocs.io/it/latest/doc/competenze_di_base/sezione2.html . Note: A fourth "highly specialized" level was added to the three levels at the last revision of the framework.
[13] DigComp (europa.eu);
[14] https://competenze-digitali-docs.readthedocs.io/it/latest/doc/competenze_di_base/sezione1.html ; DigComp 2.2, digital skills of citizens: what the update (forumpa.co.uk)
[15] The 21 DigComp competencies consist of 3 basic components: Knowledge: "It is defined as the result of assimilating information through learning. Knowledge is the set of facts, principles, theories and practices related to a field of work or study". Skill: "It is the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework (in English EQF), skills are described as cognitive (when they involve the use of logical, intuitive and creative thinking) or practical (when they involve manual dexterity and the use of methods, materials, tools and instruments)". Attitudes: "Attitudes are conceived as motivating factors of performance, the basis for consistent and competent performance. They include values, aspirations and priorities" (DigComp 2.2: 3).

approved a new Recommendation on key competencies for lifelong learning[16] which includes the European Reference Framework and is flanked by the Recommendation on Common values, Inclusive Education and the European Dimension of teaching (2018b)[17].

The Recommendation (2018a) recognizes the importance of developing skills such as "*problem solving, critical thinking, ability to cooperate, creativity, computational thinking, and self-regulation*". The Recommendation then defines the concept of competence as "*a set of knowledge, skills and attitudes"* and updates the eight European key competencies[18] that EU member states are required to transpose, facilitating their acquisition by citizens, including digital competence.

This Recommendation (2018a) includes Media Literacy for the first time in digital competence: *"Digital competence involves the safe, critical and responsible use of digital technologies and their use in learning, work and participation in society. It includes information and data literacy, communication and collaboration, Media Literacy, digital content creation (including programming), security (including digital wellness and cybersecurity skills), intellectual property issues, problem solving and critical thinking*[19]**"**.

On July 1, 2020, the *European Skills Agenda* was published[20], promoting digital skills for all, supporting the goals of the *Digital Education Action Plan*[21] approved in September 2020, which aims to (i) improve digital skills and competencies for digital transformation and (ii) promote the development of a high-performance digital education system. The *Digital Compass* and *the European Pillar of Social Rights Action Plan* then set the ambitious goals of EU: to reach at least 80% of the population with basic digital skills and to have 20 million ICT specialists by *2030.*

In September 2020, the European Union adopts the Digital Education Action Plan (2021-2027) [22], defining a common vision of high-quality, inclusive, and accessible digital education in Europe, aiming to support adaptation of the education and training systems of the Member States to the digital age[23]. As part of the implementation of the Plan, the Commission adopts two proposals for Council Recommendations to help Member States bridge the digital divide: 1) Proposal for a Recommendation on key enablers for the success of digital education and training[24]; 2) Proposal for a Recommendation on improving the provision of digital skills in education and training[25]. The proposals accompany the "European Digital Skills Certificate" pilot project, aimed at facilitating the recognition of digital skills certification across the EU.

---

[16] European Council 2018a https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604(01)
[17] European Council 2018b https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0607(01)
[18] 1) Functional literacy competence; 2) multilingual competence; 3) mathematical competence and basic competence in science and technology;4) digital competence; 5) personal, social and learning-to-learn competence; 6) social and civic competence in citizenship; 7) entrepreneurial competence; 8) competence in cultural awareness and expression
[19] European Council, 2018a.
[20] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0274
[21] https://education.ec.europa.eu/focus-topics/digital-education/action-plan ; available at: DigComp 2.2 The Digital Competence Framework for Citizens (innovation.gov.uk)
[22] eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0624
[23] On the European strategy and goals for digital see also: Europe's Digital Decade | Shaping Europe's digital future (europa.eu); *https://digital-strategy.ec.europa.eu/en/policies/europes-digital-decade*
[24] https://education.ec.europa.eu/sites/default/files/2023-04/CR%20Proposal%20on%20key%20enabling%20factors%20for%20successful%20digital%20education%20and%20training.pdf
[25] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023DC0206

The Commission is preparing the six remaining strategic initiatives of The European Education Area to be adopted by 2025 and is supporting Member States in implementing all European Education Area Strategic Initiatives[26].

The *Action Plan* responds to the Commission's dictated digital agenda with a number of policy documents. Specifically: *A Europe Ready for the Digital Age*[27] *, NextGenerationEU*[28]*, and the Recovery and Resilience Facility*[29] *(RRF)*. The *Action Plan* is a key factor in achieving a *European Education Area* by 2025[30]. It contributes to the objectives of *the Skills Agenda for Europe*[31]*, the Action Plan on the European Social Pillar*[32] *and the Digital Compass 2030: The European Model for the Digital Decade*[33]*.*

In summary, according to the *Communication on the realization of the European Education Area by* 2025[34] approved in 2020, the overall approach to the realization of the European Education Area is based on the "*reform of the system of European cooperation together with a reformed governance framework for cooperation and co-creation; a range of EU targets to measure progress; and various EU actions to support implementation in member states".*

The DigComp 2.2[35], published in March 2022, supports *the EU Digital Education Action Plan 2021-2027:* the DigComp 2.2, compared to DigComp 2.1, updates only the fourth dimension, actualizing the essential aspects for the definition of digital competence and providing more than 250 new examples of "knowledge, skills and attitudes" (KSAs) that help citizens in the informed use of digital and emerging technologies (AI, remote working, etc.). The update did not change the descriptors of the conceptual reference model[36]. The DigComp Report 2.2 collects the main reference documents on DigComp that can facilitate its application in different fields[37] .

In Decision (EU) 2022/2481 of December 14, 2022, the European Parliament and the Council of the European Union established the *Strategic Program for the Digital Decade 2030*[38]*,* which, among other things, provides for a monitoring and cooperation mechanism for the implementation of the Program, for "*the achievement of digital goals at the Union level by 2030 on the basis of* measurable *indicators".*

The growing institutional awareness of the importance of Media Literacy is evidenced by its explicit mention among the digital competencies (Ch. II, 4.c and Ch. V, 22.a) in the *European Declaration on Digital Rights and Principles for the Digital Decade* (2023/C 23/01), signed on December 15,

[26] https://op.europa.eu/en/publication-detail/-/publication/a5ef3055-66f5-11ed-b14f-01aa75ed71a1/language-en
[27] A Europe fit for the Digital Age
[28] NextGenerationEU
[29] https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility_en#:~:text=The%20device%20for%20the%20recovery%20and%20resilience%20(RRF)%20%C3%A8,pi%C3%B9%20strong%20and%20pi%C3%B9%20resilient. The RRF that will last until August 2026 is the centerpiece of the Next Generation EU
[30] European Education Area explained | European Education Area (europa.eu)
[31] European Skills Agenda - Employment, Social Affairs & Inclusion - European Commission (europa.eu)
[32] *The European Pillar of Social Rights Action Plan*
[33] Europe's Digital Decade: digital targets for 2030 (europa.eu);
[34] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0625
[35] DGCOMP version updated in March 2022: https://publications.jrc.ec.europa.eu/repository/handle/JRC128415
[36] Digital Republic | From today, DigComp 2.2 speaks Italian (innovation.gov.it)
[37] https://www.forumpa.it/riforma-pa/competenze/report-digcomp-2-2-ecco-il-nuovo-framework-delle-competenze-digitali-per-i-cittadini/
[38] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022D2481; https://digital-strategy.ec.europa.eu/en/policies/europes-digital-decade

2022, by the Parliament from the Commission and the Council of the European Union[39] which presents the EU's commitment to a safe, secure and sustainable digital transformation.

The digital rights and principles enshrined in the Declaration complement existing rights, such as those set out in the EU Charter of Fundamental Rights. The proposed rights and principles are: 1) Putting people and their rights at the center of digital transformation; 2) Supporting solidarity and inclusion; 3) Ensuring freedom of choice online; 4) Promoting participation in digital public space; 5) Enhancing the safety, security and empowerment of individuals; and 6) Promoting the sustainability of the digital future.

The Commission will provide an assessment of the implementation of the digital principles in the annual State of the Digital Decade Report. In addition, the Commission will conduct an annual Eurobarometer survey to monitor follow-up measures in member states. The Eurobarometer will collect qualitative data, based on citizens' perceptions of how the digital principles are being put into practice in different member states.

The Declaration supports the goals of the *Digital Compass 2030*[40] and is an integral part of The *Digital Decade Policy Program 2030*. The goal of the Digital Decade is to ensure that all aspects of technology and innovation serve people[41].

The *Digital Decade Policy Program 2030* is based on an annual cooperation mechanism involving the Commission and Member States. The Commission will develop in consultation with the Member States the EU's planned trajectories for each target, which in turn will propose national strategic roadmaps to achieve them[42].

Implementing the provisions of the Program, in June 2023 the Commission adopted Key Performance Indicators (KPIs) and issued Guidance to Member States on the preparation of the national Digital Decade strategic roadmaps[43]. Member States are required to adopt national roadmaps by October 9, outlining their national trajectories and the policy measures they intend to take as a contribution to the EU's collective effort to achieve the digital goals by 2030[44] .

---

[39] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023C0123(01)

[40] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Region, *2030 Digital Compass: the European way for the digital decade* com(2021) 118 final, Brussels, 9.3.2021 https://eur-lex.europa.eu/resource.html?uri=cellar:12e835e2-81af-11eb-9ac9-01aa75ed71a1.0001.02/DOC_1&format=PDF ; https://eur-lex.europa.eu/resource.html?uri=cellar:12e835e2-81af-11eb-9ac9-01aa75ed71a1.0001.02/DOC_2&format=PDF

[41] The overall framework for the Digital Decade, in addition to the Declaration on Digital Rights and Principles, includes the policy agenda, targets, objectives and multinational projects. The main goals can be summarized in four points: 1. a digitally qualified population and highly skilled digital professionals; 2. secure and sustainable digital infrastructure; 3. digital transformation of enterprises; 4. digitization of public services. Europe's Digital Decade | Shaping Europe's digital future (europa.eu).

[42] The planned cooperation mechanism consists of: a structured, transparent, and shared monitoring system based on the Digital Economy and Society Index (DESI) to measure progress toward each of the 2030 goals; an "Annual Report on the State of the Digital Decade" in which the Commission assesses progress and provides recommendations for action strategic roadmaps adjusted biennially by member states to outline actions taken or planned to achieve the 2030 goals; a mechanism to support the implementation of multi-country projects. The Commission will review the targets by 2026 to take stock of technological, economic and social developments.

[43] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023XC0630(01)

[44] https://digital-strategy.ec.europa.eu/en/news/2030-digital-decade-commission-adopts-indicators-monitor-europes-digital-transformation-and-issues

The first annual State of the Digital Decade[45], was published on September 27, 2023, contains the trajectories along which progress will be tracked. Then, within nine months, member states will submit their first national strategic roadmaps, which will launch the cooperation cycle[46].Actually, as early as 2020, The Joint Research Council of the European Commission developed the DigCompSat: a Self-Assessment Tool (SAT) on the 21 competencies provided in DigComp, with particular reference to the basic to advanced levels of competence (levels 1-6 of the framework). In detail, the tool asks the individual to position themselves against a set of statements so as to stimulate awareness of their digital competence[47].

1.2. The Italian context

DESI 2022 indicators[48] show that while Italy has made significant progress in digitization levels over the five-year period 2017-2022, still has several positions to climb in the European ranking concerning basic digital skills.

While Italy ranks 18th in the DESI ranking among EU Member States, concerning the "human capital," it ranks 25th. This result is particularly affected by the gap in the basic digital skills of the population. In fact, only 46 percent of the population possesses of basic digital skills (54 percent the average for EU countries). The gap narrows when considering advanced digital skills (23 percent compared to the EU average of 26%).[49]

Italy has a very low percentage of graduates in Information and Communication Technologies (ICT) (just 1.4% of Italian graduates choose ICT disciplines), and in the labor market the percentage of ICT specialists is 3.8% of total employment (in both cases below the EU average).

For a recent comparative analysis with European countries, see also *The Comparative Monitoring Report of the Education and Training Sector 2022* (SWD (2022) 751): articulated around the seven EU-level goals, for each chapter it highlights the situation in Member States[50].

As mentioned in the *Desi 2022 Report* itself, as part of the national digital skills strategy and related operational plan, the government has stepped up efforts to support initiatives aimed at fostering digital skills development.

It should, in fact, be pointed out that Italy has made significant investments in human capital, which have been intensified over time both thanks to the National Digital School Plan (PNSD)[51] and thanks

[45] https://digital-strategy.ec.europa.eu/en/library/2023-report-state-digital-decade

[46] Europe's Digital Decade: digital targets for 2030 (europa.eu); Digital decade (europa.eu).

[47] The instrument was tested in Ireland, Lithuania, and Spain with individuals between the ages of 16 and 65 in order to assess its validity and internal consistency. The final item bank consists of a total of 82 questions, with an average completion time of about 30 minutes, and can be viewed online within the report on the trial at the link: https://publications.jrc.ec.europa.eu/repository/handle/JRC123226

[48] https://digital-strategy.ec.europa.eu/en/library/digital-economy-and-society-index-desi-2022

[49] https://www.astrid-online.it/static/upload/desi/desi_2022__italy__eng.pdf See also Second Monitoring Report of the National Digital Skills Strategy.

[50] https://op.europa.eu/webpub/eac/education-and-training-monitor-2022/en/country-reports/italy.html

[51] https://www.istruzione.it/scuola_digitale/allegati/Materiali/pnsd-layout-30.10-WEB.pdf

to the National Education Operational Program[52] which, initially limited to southern regions, was then extended, albeit with different funding, in the 2014-2020 period to all regions and all Italian public schools (including preschools).

Within this framework, the actions promoted on digital skills have thus entered into a synergistic relationship with the Italian Digital Agenda and the policies developed by various framework programs.

In addition to the Plan for digitization of schools (School Plan 4.0) and on the strengthening of research and technology transfer centers included in the Recovery and Resilience Plan, (PNRR) "*Italy has started the implementation of a series of reforms of the vocational education and training system. Computer programming and digital didactics have been included in teacher training programs as priority areas as of the 2022/2023 school year; as of the 2025/2026 school year, digital skills development should be included in the curricula of schools of all levels* "[53].

It is natural that to close this gap with the rest of Europe a central role should be played by schools, as on the other hand recognized by Italian institutions. In fact, teacher training in digital didactics is one of the pillars of the *PNRR Education* and is a key measure under *School Plan 4.0*. In particular, the investment line "Integrated Digital Didactics and Digital Transition training for school staff" is strongly interconnected with *School Plan 4.0*[54].

In a declination of digital competencies in the paradigm "*media education and with media"* , the PNSD defines in Action #14 the (digital) skills for the final profile of competencies (age 14) on the basis of the National Directions since the first cycle of education as the conscious use of "*communication technologies to research and analyze data and information, to distinguish reliable information from those that need deepening, checking and verification and to interact with different subjects in the world.*" An orientation also confirmed for older children (age of obligation 16) with the goal in the certification model of "*appropriate use of information and communication technologies*".

As the PNSD reminds us, *"the new definition of digital skills passes through the acceptance of a great social, civic and economic challenge that the digital throws at our time: forming "digital citizenship" (...)*.

While the challenge is clear, as pointed out in the National Digital School Plan itself, "*digital-related educational pathways are not yet solidly codified in a well-defined corpus or library: in the face of numerous best practices and pioneering examples, digital issues are only now appearing in the mainstream and thus need a design effort to build curricular coverage pathways that can be used extensively".*

[52] PON 2014-2020 "Per la Scuola – competenze e ambienti per l'apprendimento" https://www.istruzione.it/pon/ilpon.html
[53] https://digital-strategy.ec.europa.eu/en/policies/countries-digitisation-performance; https://digital-strategy.ec.europa.eu/en/policies/desi-italy
[54] The School Plan 4.0 (M4C1 Investment 3.2) https://www.miur.gov.it/documents/20182/6735034/PIANO_SCUOLA_4.0.pdf/

2. EDMO and Media Literacy action

2.1. EDMO's national hubs and Media Literacy strategies briefly

According to the relevancy that Media and Digital Literacy acquired over the last years, thanks to the work done by the European Commission, specific strategies have been established at national level.

Since 2021 the European Commission has funded 14 national hubs to fight disinformation. Aim of the hubs is to "*contribute to the creation of a multidisciplinary community to create a network capable of detecting and analyzing disinformation campaigns, organizing media literacy activities at national or multinational level and other activities supporting the fight against disinformation*"[55]. As mentioned by the EC, Media Literacy activities are among the crucial tasks that each hub must accomplish by the end of the project. However, each hub is free in defining the activities according to the specific needs of the country in which it operates. For the scope of this research, the strategies of all the hubs started in 2021 have been revised to identify commonalities and differences. The revision was performed according to the contents and materials published on the projects' websites and in line with what reported in the series of online seminar organized by the Media & Learning Association together with the European Digital Media Observatory (EDMO) on the topic of Media Literacy[56].

France

In the De Facto project, CLEMI, the "French Media and Information Literacy Center", is assigned the coordination of Media and Information Literacy activities. CLEMI also works for the French education system, providing a better knowledge of the news media system and building children's citizenships. Teachers are trained by professionals in the subject to act in national schools providing students with skills and tools to decipher news and help them in developing critical thinking of media and information. The great coordination between academics allows them to organize what is recognized as their most important event in Media Information Literacy - MIL since 1990: "Press and Media Week at School". According to data gathered in 2019, this event involves 4 million students, 230,000 teachers, and 18,240 schools. They invite professionals in Media and Information to talk about the risks and the existing tools for a better understanding of the world, all through competitions, among students and workshops. They currently have a partnership with the government of Québec and are planning, shortly, to establish one with Belgium too. CLEMI oversee the training of teachers, thanks to their over 1800 public-private partnerships, mainly with major media companies, public institutions (such as the French Ministry of Education, the French Ministry of Culture, and the French Secretary of State for Gender Equality) and international organizations and associations. CLEMI provides each year several pedagogical resources addressed to teachers, trainers, families, and pupils, to support their mission in Media Literacy. Other than videos and podcasts, some of the most important and successful examples are the guide "La famille tout-ecran", which teaches good use of media, and the comic book "Dans la tete de Juliet," which through colorful and visionary illustrations, teaches

[55] Available at https://digital-strategy.ec.europa.eu/en/news/eu-anti-disinformation-hubs-now-extend-all-eu-countries#:~:text=La%20Commissione%20ha%20annunciato%20la%20creazione%20della%20diritto%20di%20informaz
[56] More information is available here https://edmo.eu/2022/08/24/wednesday-webinars-on-digital-media-Literacy-in-europe/

kids about addiction to social media in a way that is more entertaining and effective. A card game, developed by CLEMI, and used by teachers in schools across France, is another way to teach students on how to assess information quality and critical thinking. It consists of children roleplaying as journalists: it teaches them how to investigate, research a story, find truthful sources and it ends with writing essay or a news. These initiatives shown great results, according to CLEMI, because they consist of calibrating policies according to the specific culture of the French territory, making the materials more usable and effective. One of the new areas of interest for CLEMI is digital parenting. After some observations, they concluded that one of the most important weaknesses of their system of teaching Media Literacy is connected to the complexity of the French school system and how difficult it is to monitor how they apply the outline on all the territory; they are trying to face these obstacles by focusing on including families in their education plan, using mainly podcasts, to guarantee "information flowing both inside and outside schools".

Spain and Portugal

As illustrated on their official website, IBERIFIER is the digital media observatory focused on the Spanish and Portuguese territory[57]. Coordinated by the University of Navarra it is made up of twelve universities, five fact-checking organizations and news agencies, and six multidisciplinary research centers. In Portugal, mandatory education is from 6 years old to 18 years old. According to the "Schools' Autonomy and Curricular Flexibility Project" (2017), schools have the possibility of managing up to 25% of the curriculum, therefore choosing individually how to implement Media Literacy. The "New education law" (2020) describes a curriculum based on competencies, civic and ethical values education, and a mandatory daily moment to approach audio-visual communication and digital competence. Media Literacy is mentioned both in the Primary and Secondary education decree-law of 2022[58]. The training organized by IBERIFIER is aimed both at the teachers and the journalists (differentiating from other observatories).

In Portugal, there is also a digital transition action plan which is divided into: providing teachers digital empowerment, guaranteeing schools digital development, creating digital educational resources for increasingly better learning outcomes. In 2022 on a total of 150,127 teachers in Portugal more than 48 thousand have finished their training and over 52 thousand are currently enrolled in the training sessions. The observatory provides different certified courses on the subject and promotes a Master in "Media and Information Literacy and Digital Citizenship" in collaboration with the University of Porto. In Portugal there is a specific obligation of the public television service to design an action plan to promote media literacy in an accessible way, the main practices implemented are the "Agencia Lusa" (the National News Agency which created a site dedicated to tackling disinformation) and the "Pùblico na Escola" (a daily newspaper that created a "National Competition of School Newspapers" and provides training in journalism and debunking).

In Spain, the observatory provides training for teachers to accomplish the *Marco de Referencia de la Competencia Digital Docente*, which comprehends a differentiation based on the progression of competences of teachers. In Spain the *General Audiovisual Communication Law* (2022)[59] provides

[57] Website available at https://iberifier.eu/iberifier-en/
[58] More information is available here https://eurydice.eacea.ec.europa.eu/national-education-systems/spain/national-reforms-school-education#:~:text=Il%20decreto%20reale%20157%2F2022%20%C3%A8,%C3%A8%20garantito%20dalla%20propria%20formazione%20completa
[59] Law No. 13/2022 of July 7, 2022 (especially Articles 10,11, 51,151) https://www.boe.es/eli/es/l/2022/07/07/13

that all media organizations have to "*take measures for the acquisition and development of Media Literacy skills in all sectors of society, for citizens of all ages and for all media, and will regularly assess progress made*". The main practices are "Fundacion Atresmedia" (that created the prize "Mentes AMI" to recognize educational initiatives in this field), "(In)formate" (an initiative of Google, Fad and the Government of Spain with the support of mainstream media to provide resources for Primary and Secondary school (aiming critical thinking) and resources for teachers), "Maldita" (offers tools for fact-checking and gives out helpful information for teachers and useful for academic research).

Belgium and the Netherlands

BENEDMO is the hub aimed at preventing and counteracting the spread of online disinformation in the Netherlands and the region of Flanders[60]. Several studies highlighted how the culture and e-linguistics differences could affect the observatory's practices, for example there are significant differences in social medias use by citizens, though there are the same tendencies in usage and trust in media. BENEDMO concentrates its studies in the Dutch regions of Belgium (the Flanders) so it is not multilingual. In Belgium and in Netherlands, there is a concentration of media ownership in just a few organizations. BENEDMO provides Media Literacy for journalists preparing them for the digitalisation of news and its impact on disinformation. The observatory aims to implement citizens' skills by organizing workshops for students in journalism to give them a better understanding of how disinformation spreads, its impact, and different strategies. Another practise is a "Factcheck marathon", it is organized for journalists in training to let them work with professionals during elections to check politicians' debates and to assess the information that they choose to communicate. This initiative provides learning in real life context. BENEDMO created the "Retina toolbox": a digital toolbox where librarians can find the essential input and inspiration for setting up a learning route on the topic of misinformation. One of the partners of BENEDMO is the "Media Literacy Network Organization". The Dutch network organization consists of over 1200 partners involved in Media Literacy such as libraries, media producers, research institutes and cultural institutions. Some of their best practices are Bad News Game and Media Masters. The former consists in creating fake news by putting players in the place of those who create them. Researchers observed that the game improves the ability to spot manipulating techniques and increases confidence in using medias wisely; it also prevents them from sharing information before fact checking so it prevents spreading. The latter is a game that comprehends different versions based on the age of the students that are playing. The most important version is for 10-12-year-olds and the themes vary from fake news and cyberbullying to sexting and grooming. There is a national competition during the "Week of Media Literacy" (usually the 3rd to 11th of November), which consists of an awareness campaign involving more than 300 activities with schools. The story is divided into episodes watched daily and the students need to face those problems and find solutions.

Denmark, Sweden, Norway, and Finland

NORDIS is a consortium of researchers and fact-checkers from Denmark, Sweden, Norway and Finland. As shown in their presentation, the FactBar EDU project works with fact-checking experts, journalists, media specialists and pedagogues to create Digital Information Literacy tools to support teachers in dealing with social media issues in the classroom context; to empower students with

[60] Website available at https://benedmo.eu/english/

critical thinking and digital information literacy skills to resist mis and disinformation, and to activate citizens to verify their social media content. To tackle disinformation in Northern countries these issues the program developed a Digital Information Literacy Guide explaining how it's linked to democracy and active citizenship. Digital natives, according to research, are inexperienced in evaluating sources and information and, during the Covid pandemic and the Ukraine War people were informing themselves online, especially on Tiktok and Instagram. After analyzing the broad context of misinformation in our modern society, NORDIS identified the most effective methods proven to tackle disinformation (prebunking, debunking, strategic ignorance, lateral reading, civic online reasoning, click restraint strategy). The project also paid specific interest to political propaganda based on psychological manipulation and how disinformation is its most important tool. Other than creating competent citizens with Media Literacy, the project aims to bring awareness to one's emotions while facing news and how they are used by media providers to influence our reactions and thoughts; specifically, they try to teach how to evaluate a scientific claim (particularly relevant especially during the pandemic) and build "algorithm awareness" (both on how contents are selected, their digital footprint and users' privacy). In collaboration with SITRA, the Finnish Innovation Fund, NORDIS developed a digitrail survey and a digipower investigation[61] . "These studies revealed in concrete terms the large-scale operation of data collection ecosystems, the countless different entities that process our data and the huge amount of data that is generated about us and stored for unknown companies to use. The findings of both surveys also revealed how poorly data giants comply with European data protection legislation. The digipower investigation also sought to understand whether data and profiling can also be used to influence societal decision-making“. One of the most interesting initiatives is the development of a digital behavior assessment tool ("digiprofile test"), which assesses one's knowledge, attitudes and online behavior, creating a personalized digital profile and, consequently, personalized tips on how to improve your Media Literacy. Most of their work with schools consists in publishing reports and guidelines for teachers (constantly adjourned) and in Facts4All, an Open Online Course that *"empowers primary and secondary teachers to develop and implement effective whole-school approaches to foster critical thinking and tackle online disinformation through intergenerational collaboration and community engagement".*

Czech Republic, Poland, and Slovakia

CEDMO, the hub covering Central Europe (mainly the Czech Republic, Slovakia and Poland), provides lectures for journalists and teachers, as well as handbooks for participants[62]. The training is mostly coordinated through webinars and workshops. They also provide an online guide for parents, videos and podcasts. Media Literacy Education in Czech Republic is a cross-cutting theme that involves different school subjects, but it's a decision to be taken by schools whether they want to implement it or not, so in reality there are some difficulties in adopting ML in school curriculum. In this country, it's especially important the role of Non-Governmental Organizations since they are the ones that provide teachers with constantly adjourned handbooks on Media Literacy. According to recent surveys, not so many teachers are educated in this field, even though it is reported on official documents. CEDMO focuses on targeting attitudes, values, and emotions. One of their most important goals is to teach pupils the value of truth and how easily it could be manipulated, making practical examples with the history of their country. CEDMO implement handbooks for children with exercises with optical illusions, to show how sometimes things are not how they look like and help

[61] Information available at https://www.sitra.fi/en/themes/about-sitra/
[62] Website available at https://cedmohub.eu/

them in developing critical thinking and self-reflection. One of the most important issues that they faced was parents' restraint to make children participate in activities when these where involving topics considered "political", such as vaccines, the pandemic etc. This is the reason why the materials that they choose to use at schools have to be strictly apolitical and most of the time this creates difficulties in tackling disinformation on major subjects. CEDMO in Poland has developed video content, such as brief YouTube films and interviews, but also 40 minutes podcasts. They chose to use these kinds of tools after the results of a "broad global survey on Internet usage" which stated that online videos are often used as a source of learning and, according to the PWC Research Centre[63] (2023), younger adults listen to podcasts and almost half of them do it for learning purposes.

Ireland

In the Irish context, the first Media Literacy policy was developed in 2016. The activities promoted by the Irish Hub can rely on a consortium coordinated by the Dublin City University (DCU) Institute for Future Media, Democracy and Society, joined by The Journal FactCheck, NewsWhip, and the University of Sheffield. In its recent report[64], the Ireland hub provided an overview of the so called "disinformation trends". Considering recent and current events, there is a specific focus on activities by right-wing extremists. Disinformation is "consistently promoted" by people with mostly conspiratorial, extremist, and antidemocratic views or a nativist ideology (connected to the crisis in accommodation for asylum seekers and refugees), that arise on secondary platforms, but are making their way to the mainstream ones. *"Other major narratives relate to general conspiracy theories; health and wellness, especially in relation to Covid-19 vaccines; gender and sexual identity; and science and the environment including climate change".* The hub focuses on four specific roles:

- COORDINATE Media Literacy activities and to be "first port of call" for Media Literacy information. The goal is to make it accessible and easy for people to use their website and check information.
- COMMUNICATE to foster debate and discussion about Media Literacy and the different policies to tackle disinformation. It is promoted through social media accounts, newsletters, websites, with the aim to not only communicate with members, but the public too, creating a sort of open organization. EDMO Ireland organizes webinars on different topics and an annual conference.
- PROMOTE. Since 2019, the organization created the "Be Media Smart" campaign, broadcasted on online platforms, TV and radio thanks to many different stakeholders (Sky, Virgin media and using social media like Twitter and Facebook). The campaign's goal is to promote a "media conscious behavior" and encourage people to "stop, think and check" when encountering information. The campaign shows a specific website that contains accessible and understandable guidelines for fact-checking and reliable resources.
- INNOVATE. The Hub recently introduced the "Media Literacy Award" to recognize the best practices.

One of their most important initiatives is the national campaign with libraries. It involves over 330 library branches around 31 local authorities and approximately 1600 librarians. The campaign

[63] More information is available at https://www.pewresearch.org/journalism/2023/04/18/podcast-use-among-different-age-groups/
[64] Culloty 2023.

capitalizes on the fact that Irish people recognize libraries as a reliable source, and they are very numerous considering the size of the territory. Also, according to a pilot study of the College of Dublin, there is a huge demand for Media Literacy training from librarians, since they already work with Information Literacy. The study *"sought to develop and pilot a cutting-edge curriculum, incorporating a creative and flexible approach to media literacy training for public library staff"* (Kerrigan et al., 2023). By training librarians, EDMO Ireland can create a system of guidance for the general public. By the end of 2023, the Hub wants to launch a new "Be Media Smart" campaign inviting people to go to local libraries for further information. Meanwhile, the Organization will develop new Media Literacy websites, with a section for training and one containing in-depth materials. EDMO Ireland promotes training sessions and webinars. The Teacher training is both developed in "Arts in Junior cycle" (with students that are between 12-15 years old provided with a not compulsory program for Media Literacy) and at Trinity College (higher education training for those who will be secondary school teachers).

Belgium and Luxembourg

EDMO BELUX is a cross-community, multilingual collaboration between Vrije Universiteit Brussel, Université Saint-Louis - Brussels, Mediawijs, Média Animation, EU DisinfoLab, Agence France-Presse, RTBF, RTL Luxembourg and Athens Technology Center[65]. Media Literacy activities implemented by BELUX are campaigns, training events for professionals (teachers, librarians, youth workers) and a repository of educational materials. Belux is a multilingual and multinational hub, since its activities are both translated into Flemish and French, Belux coordinates its actions in the best possible way to guarantee consistency in their policies. The repository is divided by language group. It was built analyzing teachers' practices, and diving into P2P databases (looking up all the materials that teachers shared with each other on platforms like "KlasCement" and "E-class.be") and desk research. Afterwards, a feedback panel was organized, that led to the selection of most relevant content, the improvement of some existing materials and the translation. KlasCement is a platform made by the Flemish government for Education. Because of its algorithm, the platform tends to promote the material created and uploaded by teachers, rather than what is published by organizations, since it's a P2P platform, both teachers and organizations can upload different materials regarding different topics to create a network to inspire teachers organizing lessons. It is used by Belux because of its rating functions: teachers can rate the material and comment about the pros and cons. According to their research, of the 136 items tagged with disinformation on the website, most of them were downloadable (videos, apps, articles, interactive online exercise, workshops, physical materials). Looking at the teachers' comments, they need material that it's ready to use and related to current events. Teachers also prefer different kind of activities and sometimes ask to be provided with tests solutions. The second platform used is the E-CLASS. It was created to support the education system and is accessible to teachers in the French-speaking part of Belgium. Its purpose is to provide quality resources, and content is organized by levels of education. On the platform there are more than 7000 educational contents and 408 are about Media Literacy. The offer is extremely diverse, it comprehends videos, fact checking websites, pedagogical webs, interactive activities and lot of videos in partnership with RTBF (which is the public broadcaster in the French-speaking southern region of Belgium). E-class provides educational tools to tackle disinformation, and these are provided in partnerships with media and public authorities. One of the

[65] Website available at https://belux.edmo.eu/

goals of BELUX is to address disinformation notably with "Journalists in the classroom". This activity was born because of the partnership with the Association of Professional Journalists. It brings students in contact with journalists, through web, radio or TV, and they also produce an educational dossier on disinformation.

Italy

The Italian Digital Media Observatory assigned high priority to the Media Literacy tasks and activities. Indeed, the entire work package has been structured to give relevance both to research activities and practical dissemination of high-level contents for the public.

RAI, due to its history and its position in the Italian communication system, intended to provide the project of the Italian Digital Media Observatory with specific technical and editorial know-how.

In fact, since its beginning, Rai has played a decisive role in the country's literacy process, promoting social cohesion, and over time has consolidated a free educational offer on its networks (particularly throughout RAI Cultura and Rai Ragazzi) also developing partnerships with the school world.

Based on its experience, RAI divided its action in IDMO on Media Literacy into four areas: research, Media Literacy campaigns and productions, technological field, communication.

In this framework, thanks to the specific know-how and network, the Research Department (RAI Ufficio Studi) coordinates the activities and, mostly with the support of T6 Ecosystems, promotes scientific research.

In the specific area of Media Literacy, RAI Ufficio Studi promoted two research studies. The first one, in cooperation with Università Cattolica di Milano collected data on Italian innovative experiences on Media Literacy. *Media Literacy versus Fake News* is a survey aimed to collect and select the available documentation related to the media-educational experiences on online disinformation, in schools and at territorial level. This was complemented by a reconnaissance part of the historical experience of the Italian Public Broadcasting Service in the area of Media Literacy, with a focus aimed at countering misinformation. Thanks to the analysis, it was possible to rebuild an overall view of what has been achieved, providing tools for modelling, and rationalizing the process of Media Literacy, useful to enhance future experiences.

The second one, subject or the current document, jointly conducted with T6 Ecosystems and with the support of TIM, on the identification of Digital Media Literacy gaps and needs. This research was developed in cooperation with LUISS and with institutional support of Italian Ministero dell'Istruzione e del Merito – Direzione generale per i fondi strutturali per l'istruzione, l'edilizia scolastica e la scuola digitale.

RAI, through the commitment in IDMO of RAI Cultura and Rai Contenuti Digitali (which took over the activity initially implemented by the Department Rai per il Sociale), with an articulated communication approach, realized audio-visuals products capable of attracting different types of audiences, ensuring a great effectiveness of Media Literacy campaigns, as audience data show. Accordingly, RAI has worked on two kinds of TV production: the first one addressed to subject-matters experts and educators, the second one addressed to general audience, as follow:

RAI Cultura, starting from a consolidated experience of working with schools, realized and aired: a) 5 episodes, of 30 minutes each, spin-off of the TV program "Invitation to reading" (more than -

1,100,000 total audience), focused on Media Literacy through the use of the innovative school library; b) 4 special episodes, of 30 minutes each, of the TV program "Digital World" (more than 1,000,000 total audience) as a glimpse of the new realities of the digital ecosystem, read through the experience of IDMO and its actors, with the aim of implementing awareness on disinformation and promoting the acquisition of new critical skills.

Rai Contenuti Digitali produced and aired three literacy campaigns, consisting in 30 short video contents (pills): ***"****United against Disinformation",* with the aim to reach general audience, giving to all citizens some essential and appropriate tools to develop their critical sense and exercise their digital citizenship. The content of pills is designed for online and linear TV channels.

The audience of the pills were very high: 1st series more than 270,000,000 total reaches; 2nd series more than 280,000,000 total reaches. The 3rd series, already available on RAI digital platform (Rai Play), will be on air on RAI tv channels in September 2023.

Moreover, with the aim of raising students' awareness on disinformation, RAI has developed training activities, involving its journalists and correspondents, targeting the school world. In this framework, RAI organized 29 online meetings (webinars) with schools, concentrated in winter and spring of 2022 and 2023, involving more than 4500 students in total.

Accompanying all IDMO activities, in strict coordination with IDMO leader (LUISS), RAI organized several events to promote IDMO activity on Media Literacy, to disseminate and promote its actions to counter disinformation - often in collaboration with institutions - involving publishers, audiovisual operators, experts and educators.

To support work package, TIM intended to develop a Digital Literacy training strategy, based on the experience, know-how and passion of a company that produces technology and develops digital tools and has gained consolidated experience in training its more than 40,000 employees.

Starting from the experience gained through digital training courses offered to schools, TIM has developed a training pathway that delves into the key digital communication tools to understand their potential and opportunities and gain awareness of the risks to which their incorrect use exposes.

Designed for young people, the Media Literacy courses aim to overcome students' natural distrust of those who invite them to deepen and consolidate their knowledge of digital tools by creating engagement and leveraging topicality and emotion.

In each appointment and educational pill, TIM experts bring concrete examples and convey messages through languages and images that are familiar to kids.

The training program is dedicated to high school students and teachers. Until the moment of drafting the Research TIM reached out 60 schools and 12,000 attendances. Schools that have participated to date are evenly distributed across the country, with a slight prevalence in central Italy. The average age of the participants is between 15 and 18 years old.

The courses have a maximum duration of 10 hours and consist of 4 live events available via webinar or in-person courses for a restricted number of schools, taught by TIM experts in misinformation to promote encounter and discussion between different generations and different points of view. Completing the course 4 e-learning modules to take up the topics covered in the webinars, reflect

on one's own behaviors and identify personal strategies to counter misinformation and 4 interactive games to test the knowledge acquired.

Students and teachers who pass the tests can obtain certificates of participation in the program. Participation in the program by school staff can also be certified on the Ministero dell'Istruzione e del Merito training platform and become part of teachers' training curriculum. The schools that participate will be awarded the title of Digital Media Educator.

TIM also contributed at some of the events organized by RAI and LUISS with its Innovation Lab experts who described how technology has changed and will change the way people communicate and interact, what opportunities digital innovation introduces in communication tools, and what potential risks it exposes.

2.2. How to assess Media Literacy: a literature review of methods and tools

As anticipated, one of the suggestions of the HLEG is to develop or improve the teaching of Media Literacy in schools. However, to start implementing or improving programs for Media Literacy education the first step should be an assessment or measurement of competencies and skills at various levels. This issue has been approached in various ways by different researchers[66]. Despite of the extensive body of literature on this topic, a universal assessment framework that could encompass all aspects of such a complex concept has never been established. The following paragraphs summarize recent studies on the assessment of media and digital competencies reporting about the methodologies adopted and main results.

The criteria used to select the papers are three. First, it was performed a review of recent papers published on academic and scientific journals specifically addressing the assessment and measurement of Digital and Media Literacy competencies. Then, the selection was made by focusing on the most recent works published. Indeed, as reported by Maksl et al (2015) *"research to develop methods for studying and evaluating the usefulness and effectiveness of Media Literacy education continues to grow":* it was decided to focus on how other researchers have recently investigated skills and competencies. The third criterion was to select only studies focused on case studies based on teachers and students to be able to retrieve lessons learned for our analysis and narrow the scope of our investigation. As a matter of clarity, the list of papers cannot be considered exhaustive, but it has been sufficient to help us in designing a useful approach and tool for analysis.

The issues concerning the assessment of Media Literacy Level, the importance of Media Literacy education (MLE) and the challenges associated with assessing Media Literacy skills are discussed by Schilder et al. (2016). What emerges in the study is that, despite the growing emphasis on MLE, there is little consensus on how to effectively measure Media Literacy. The lack of consensus is reflected in the multiple methods used to assess Media Literacy, making it difficult to draw a comparison between studies. While there is a general understanding of Media Literacy outcomes,

[66] Among the others: Schilder et al., 2016; Adjin-Tettey, 2022; Simons et al., 2017; Pereira and Moura, 2022.

they are often not explicitly defined and measured[67]. Scholars and professionals in the field are urged to be more precise in defining the concepts and skills included in MLE, as well as developing standards or criteria for assessment. Schilder et al. (2016) note that there has been limited systematic research on Media Literacy assessment challenges. The challenges identified in the literature include the lack of systematic implementation of assessments, unclear definition of Media Literacy criteria and outcomes, the multidimensional and complex nature of Media Literacy, and the difficulty in assessing complex thinking skills such as analyzing, evaluating, and producing media messages. Schilder et al. (2016) seeks to explore the challenges faced by Media Literacy professionals and scholars regarding assessment. They use qualitative interviews to identify these challenges and to develop a quantitative survey to validate and expand the findings with a larger sample. The goal is to provide insights that can help policymakers, scholars and educators address the challenges of Media Literacy assessment. The study uses mixed methods, combining qualitative and quantitative approaches, to investigate the challenges of Media Literacy assessment. In the first phase, qualitative interviews were conducted with a small sample of Media Literacy experts. The findings from these interviews were used to develop a quantitative survey, which was then administered to a larger sample of Media Literacy professionals and scholars from around the world. The qualitative interviews involved 10 participants who were selected purposively based on their expertise and varied backgrounds. The interviews were conducted online, recorded, and transcribed for analysis. The qualitative data analysis resulted in the identification of themes and challenges related to Media Literacy assessment. In the second phase, a quantitative survey was developed based on the qualitative findings. A total of 133 respondents completed the survey, representing 35 countries. The survey data were collected anonymously and analyzed using statistical software.

The main challenges identified in both the qualitative interviews and the survey included:

1. Context-dependent assessment methods and criteria: there is no consensus on standardized measurement tools for Media Literacy assessment, and assessment approaches vary depending on the specific learning context and cultural factors;
2. Difficulty in assessing complex thinking skills;
3. Issues of interpretation and interrater reliability: there is a lack of agreement and consistency among teachers and researchers in interpreting and evaluating students' Media Literacy competencies. Different perspectives and philosophical orientations can lead to varied interpretations of assessment criteria.

The study findings highlighted the need for clearer definitions, standards, and practices in Media Literacy assessment. The challenges identified have implications for the development of effective assessment methods and the establishment of a common understanding of Media Literacy across different contexts. Finally, the paper discusses the need for reliable assessment methods in the field of Media Literacy education (MLE) to enhance its credibility. Participants recognized the importance of valid and reliable research methods but acknowledged the challenges in developing a single or large-scale assessment due to contextual factors such as geography, history, culture, and assessed groups. It is noted that quantitative and standardized tests may not capture complex skills integral to MLE, despite the desire to assess critical thinking, analysis, evaluation, and creative production of media messages. The study highlights the difficulties faced in moving beyond lower-order skills and content knowledge assessment, including limited teacher preparedness, and the absence of a single correct response for complex thinking skills. The study recommends more critical examination of

[67] Livingstone & Thumim, 2003.

existing assessments, comparative studies across countries, and research on the retention of knowledge, skills, and attitudes after MLE.

Researchers worldwide have sought to identify the best approach to analyzing achieved levels of Media Literacy and addressing any remaining gaps through numerous methodologies, while being faithful to the concept of Media Literacy, despite the constantly changing reality. Some scholars determined the different levels of Media Literacy through the execution of exercises requiring the use of MIL related tools. In the case of the study conducted by Adjin-Tettey (2022)[68] a total of 187 voluntary third year students from a public university in Ghana were considered, representing more than half of the students in the class. The respondents were divided into two groups, with only one group being provided with Media Literacy tools to identify the truthfulness of a news item. Subsequently, both groups of students were presented with contents in the form of posts or articles and asked to express their opinions on them, including whether they considered them reliable or would share them on social media, along with reasons for their responses. The collected data were analyzed using the SPSS software (Statistical Package of Social Science).

Another example is Maksl et al. (2015), who adapt Potter's cognitive model of Media Literacy *"to news Media Literacy, to test the relationships between knowledge and individual differences suggested by that model, and, thereby, to begin to develop a measure of news Media Literacy useful in creating and evaluating training programs and curricula as well as examining correlations among news Media Literacy, news media use and other variables. The results provide support for all those aims"*. Findings are based on a phone survey of more than 500 teenagers suggesting that Potter's model provides a useful framework for defining and assessing news Media Literacy.

Another important cue of analysis is provided by teachers. Indeed, Unesco points out in its own 2013 report [69], on curriculum for teachers that *"enhancing Media and Information Literacy among students requires that teachers themselves become Media and Information Literate".* This initial focus on teachers is a key strategy to achieving a multiplier effect: from information literate teachers to their students and eventually to society at large. Media and Information Literate teachers will have enhanced capacities to empower students with their efforts *"in learning to learn"*, learning autonomously, and pursuing lifelong learning. By educating students to become media and information literate, teachers would be responding first to their role as advocates of an informed and rational citizenry, and second, they would be responding to changes in their role as educators, as teaching moves away from being teacher-centred to becoming more learner-centred. For this reason, this Research investigates on gaps and needs on teachers and students.

To make an example of analysis focused on teachers, a study was conducted by Simons et al. (2017). According to the authors, educational institutions have a significant responsibility in promoting Media Literacy. It is essential to ensure that teachers' preparation meets the challenges presented by the evolution of media and technology and that policies can be calibrated based on assessments of their skills. The aim was to measure both the personal media usage skills of teachers and their ability to produce teaching materials for educating students in this subject. In this case, the analysis was carried out through a questionnaire completed by 454 teachers and 219 prospective teachers. The study was conducted in five phases:

1. A list of all Media Literacy competencies was compiled.

[68] Adjin-Tettey 2022
[69] UNESCO (2013), Media and Information Literacy curriculum for teachers, Paris: UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000192971

2. Four researchers evaluated the clarity, tangibility, and specificity of each competency considered. The competencies were formulated to be as generic as possible to maintain the questionnaire's relevance over time. The three core areas of the questions were media usage, media understanding, and media production/participation.
3. Fifteen experts evaluated whether all the main Media Literacy competencies were covered by the questions.
4. Three teachers and two student teachers verified the comprehensibility and unambiguity of the questions.
5. The questionnaire was completed by the selected sample.

One of the difficulties encountered by experts was adapting the statistical measurement of quantitative analysis to skills and knowledge that are strongly dependent on the analysis of various contexts and critical thinking.

As we have seen before, the concept of Media Literacy is very broad, and finding an evaluative measure that fully reflects the skills of the interviewees is extremely challenging. In their article, Pereira and Moura (2022) reflect on the considerations following the results of their study in Portugal (questionnaire completed by 679 students aged between 17 and 18 years, in 46 different public schools) to assess the level of Media Literacy. As stressed by the authors, competence can be understood as concrete abilities or skills, as well as knowledge, values, and behaviors[70]. The concept of Media Literacy implies an analytical understanding of vast and interconnected contexts, a level of critical thinking, reasoning, and interpretation that cannot always be evaluated solely based on a single performance. According to Pereira and Moura (2022), quantitative assessment in this area may result in excessive simplification, making the results unreliable. To encompass all aspects of Media Literacy, they formulated a questionnaire that assigned a score of up to 100 at the end. Three levels of Media Literacy competencies were defined based on the responses given to the questions, which could be considered correct, partially correct, or incorrect. Additionally, each question was assigned a level of difficulty based on the total number of incorrect answers and theoretical evaluations. The questionnaire included partly open-ended questions based on the resolution of specific tasks.

This type of response would lead to more diversified results and allow interviewees to apply the "critical thinking". Multiple-choice questions were also used to assess knowledge of facts that did not require further explanation.

Researchers tried to gather data about MIL levels asking participants to self-evaluate their competencies, to track any gaps in Media Literacy. Tandoc et al. (2021) conducted a study in Singapore to explore the competencies perceived by social media users as necessary to avoid problems on social media. The study used a mixed-methods approach, including focus group discussions and online surveys, and identified four areas of perceived competencies: technical competency, social relationships, informational awareness, and privacy and algorithmic awareness. The study developed and validated a 14 item of Perceived Social Media Literacy (PSML) scale and found variations in perceived competencies based on sociodemographic factors such as age, gender, education, income, and frequency of social media use. The study supports the idea that Social Media Literacy is multifaceted and encompasses technical, social, and cognitive competencies. It highlights the importance of understanding and managing social interactions,

[70] Guzmán Marín, F. (2012), *El concepto de competencias* in “Revista iberoamericana de educación”.

assessing information authenticity, and being aware of how information is presented and curated on social media. The findings suggest that Social Media Literacy is potentially developed through informal learning contexts, although formal teaching can also be beneficial. The practical implications of the study include designing interventions that target specific groups based on their perceived competency gaps. The developed PSML scale can be useful for researchers interested in studying Social Media Literacy and assessing the impact of educational interventions. The study also emphasizes the importance of discussing privacy and algorithmic awareness, a dimension not extensively explored in previous research on social Media Literacy.

Another example of a study using a mixed-method approach to gather data on students' Media Literacy is the one conducted by a university in Turkey by Akcayoglu and Daggol (2019), with 189 students participating in the preparatory year program. Quantitative data were collected using a Media Literacy Level Determination Scale, while qualitative data were collected through open-ended questions. The data were analyzed using descriptive statistics and content analysis. The findings were based on participants between 17 and 22 years old, and most of them were male. Many students had access to personal computers and the internet, with internet usage being higher than TV watching. The participants had varying levels of familiarity with the term "Media Literacy", and their definitions of “Media Literacy” included accessing, using, and interpreting media, understanding implicit messages, and thinking critically about messages. The quantitative data analysis indicated that the participants had a good understanding of media messages and their purposes. They also showed the ability to analyze and react to media content. However, their awareness of hidden messages and the influence of sponsors was relatively lower.

In conclusion, the review of the tools used in the literature for the evaluation of Media and Digital Literacy skills was fundamental in designing the Survey process conducted for the purposes of this study. The research design and related results are therefore reported in the next chapter.

3. The Idmo Survey

3.1. Definition of Media, Information and Digital Literacy.

According to the European Commission (EC), Media Literacy is defined as *"the ability to access the media, to understand and critically evaluate various aspects of the media and their content, and to create communications in a variety of contexts"* (Communication 2007/883/EC). This definition highlights the different areas and perspectives under which this topic should be analyzed and consequently improved. This definition, derived from that used already in 1992 by the Aspen Media Literacy Leadership Institute, is quite general to be adapted to the rapidly evolving technological developments. Another similar definition is provided by the Centre for Media Literacy: *"Media Literacy is a 21st century approach to education. It provides a framework to access, analyze, evaluate, create and participate with messages in a variety of forms, from print to video to the Internet. Media Literacy builds an understanding of the role of media in society as well as essential skills of inquiry and self-expression necessary for citizens of a democracy"*[71].

The Commission returns to the topic in 2009, recommending the promotion of Media Literacy in all sectors of society as a precondition for the development of active citizenship in the information society, better intellectual and emotional understanding of Digital Media, awareness of Europe's audiovisual heritage and cultural identities, social inclusion of different age groups, media pluralism and independence, democracy and political participation, copyright, and privacy[72].

Revisiting the academic literature, the definition goes beyond the classical notions of Media and Information Literacy (Hobbes, 2010; Buckingham, 2008 and 2015) emerged in the 70s also embracing Data Literacy and Security Literacy (Alava et al., 2017) and focusing on the awareness and understanding of how personal data is used and treated. In 2018, the final report of the *Commission High-Level Expert Group (HLEG) on Fake News and Online Disinformation*[73] - a major document for the strategies to address disinformation at European level - the definition looks at the topic of Media Literacy more broadly stressing that *"in the context of the contemporary information age, media and information literacy (MIL) is acquiring a strategic importance for digital citizenship as basic educational competences were for citizens of the industrial age"*. As reported by Hobbes (2008), *"Media Literacy, defined generally as the ability to access, analyze, evaluate and communicate messages in a wide variety of forms"*.

According to the HLEG, indeed, Media and Information Literacy has become "*an essential competence as it is the starting point for developing critical thinking and good personal practices for discourse online, and consequently also in the offline world. It aims at building a citizenship based on fundamental rights like freedom of expression, and at enabling an active and responsible participation in the online public sphere*". In light of these reflections, the working group recommends

[71] See https://www.medialit.org/media-Literacy-definition-and-more
[72] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009H0625
[73] https://digital-strategy.ec.europa.eu/en/library/final-report-high-level-expert-group-fake-news-and-online-disinformation

the EC both short-term and longer-term responses to tackle disinformation. Among the five pillars[74] on which these responses should be based there is a specific point on the promotion of Media and Information Literacy. To promote it, the HLEG suggests two main strategies: 1) Actions in support of Media and Information Literacy programs for citizens of all ages and 2) Actions promoting a reassessment and adjustment of educational policies.

This second point of action is the fundamental scope of this research run in IDMO. The HLEG suggests, indeed, that European institutions and national governments *should "recognize Media and Information Literacy as core literacy, adding it into school curricula". The EU "should make this a stated priority with the aim of integrating critical Media Literacy into the core literacies guaranteed to all schoolchildren in Europe, with formal status in national school curricula*". The HLEG also states that "teacher-training schools" should be created including critical Media Literacy modules.

3.2. Monitoring and mapping Media Literacy experiences: the Italian case

The importance of monitoring the teaching of Digital and Media Literacy in Italy is shown to be particularly useful, considering that the lack of standardization of digital educational paths becomes even more pronounced for the teaching of Media Literacy, as symptomatically evidenced by the absence of a national database on Digital and Media Education and Media Literacy practices, as reported in the Research "*Media Literacy versus Fake News*" (MlvFN), carried out by RAI Ufficio Studi and Università Cattolica del Sacro Cuore di Milano [75].

The Piano Nazionale Scuola Digitale (PNSD) provides for a Digital Observatory to periodically monitor the implementation of the measures in the Plan. However, the data from the Observatory's surveys seem to be accessible only to schools (through the SIDI platform) and, to the best of our knowledge, have not (yet) delved into Media Literacy issues.

Interesting surveys on digital skills and needs developed by Indire in 2016 and 2018 in the framework of the National Operational Programs (NOPs), referring to some southern regions, are available online, and they certainly provide a general framework on the digital needs of teachers and learners, but again, Media Literacy is not covered[76] . In fact, the survey focuses mainly on how students and teachers use technologies in their daily lives.

As for boys, it should be noted that 78% of respondents believe they have good or excellent digital competence. This figure the authors of the research point out - appears consistent with the section

[74] The others are: i) enhancing transparency of online news, ii) develop tools for empowering users and journalists to tackle disinformation, iii) safeguard the diversity of the European news media ecosystem, and iv) promote research on the impact of disinformation in Europe.

[75] The *Media Literacy versus Fake News (*MLvFN) Research, carried out, again within IDMO, between the end of 2021 and the beginning of 2022. The study is the result of a scientific collaboration between Rai Radiotelevisione Italiana Ufficio Studi and Università Cattolica del Sacro Cuore of Milan - and in particular its two Research Centers, OssCom (Center for Research on Media and Communication) and Cremit (Center for Research on Media Education Innovation and Technology). The scientific collaboration aimed to identify and locate (map) the most significant and innovative educational experiences developed in Italy and aimed at young people (best practices) to stimulate in them a full critical awareness in relation to online disinformation. https://www.idmo.it/2022/05/19/fake-news-rai-cattolica/

[76] https://www.istruzione.it/archivio/web/istruzione/pon/programmazione_2007_2013/valutazione.html

of training needs, in which improving digital skills appears, for boys, to be a non-priority goal[77]. With regard specifically to training needs on digital, among students (both first and second cycle) the need to perform school activities in a more effective and enjoyable way appears to be significantly more widespread. Specifically, for secondary school this percentage reaches 58%, tied with the need to develop a skill to recognize reliable and useful content online (58%) and is followed by the ability to better use communication tools (41%).

Regarding the training needs of teachers, the Indire survey for secondary schools shows that the greatest obstacle in the use of digital varies in relation to the subject area of reference[78]. When questioned about what training needs to be developed on digital, teachers seem to point out that there is no specific issue that they consider to be much more urgent than others, but rather the issue in general of digital skills, in which Media Literacy is fully included.

It is precisely from the evidence of the importance of a questionnaire aimed at schools with a precise focus on Media Literacy that this survey project was born. The need for a targeted survey rests on the fact that, at least in its most evolved form, Media Literacy is still a young teaching subject, mostly included in the amount of teaching hours reserved for civic education (digital citizenship), recently reintroduced in schools. Quite natural, then, that there is still no consolidated literature on the subject, although there are many meritorious initiatives developed at the academic level and by qualified associations of teachers and trainers to promote and disseminate digital culture and Media Literacy throughout the country, at different levels, as part of the actions for digital citizenship.

The objective of this Digital Media Literacy Needs Survey realized by Rai, T6 Ecosystems and Tim, in collaboration with LUISS, and with the institutional support of Ministero dell'Istruzione e del Merito - Direzione generale per i fondi strutturali per l'istruzione, l'edilizia scolastica e la scuola digitale, was to to investigate, on the basis of a field survey, the needs and requirements of teachers and students in terms of Media Literacy in order to provide useful recommendations for school educational pathways and broad educational offerings.

The Research *Digital Media Literacy Needs* thus stands as the natural complement of the *Media Literacy versus Fake News* Research[79] which by providing, among other things, the definitional framework outlined the areas of in-depth study subject of this Report, and in particular of the questionnaire for the Survey.

Compared to the functionalist view of Media Literacy such as the one, for example, used in the North American context by NAMLE[80] which seems to trace it back only to a "*tool for encoding and decoding* media *messages*," the definition taken up in the MLvFN Research and which is reiterated here, in line with the approach adopted by the European Commission in 2007 (Communication

[77] At the top of the training needs, young people indicate in order: foreign languages (82% of the young people with a value between 4 or 5 on the interest ranking); getting closer to the world of work (79%); improving organizational skills (78%); the ability to communicate more and better (71%). Only a smaller share of the sample (67%) indicates important for their future the improvement of digital skills.

[78] In general, for teachers of humanities disciplines the greatest obstacle is the lack of adequate teacher preparation; for teachers of technical, service and engineering disciplines it is the difficulty of integrating digital into school time; for other teachers it turns out to be the lack of technical support for teachers. The most frequent use (about 65%) of digital in the classroom is related to fruitive and informational activities and only to a lesser extent to content creation activities (about 30%). The percentage falls further regarding teachers (about 10%) who frequently implement activities aimed at fostering students' independent and informed use of digital resources.

[79] https://www.idmo.it/2022/05/19/fake-news-rai-cattolica/

[80] The *National Association for Media Literacy Education* (NAMLE); Media Literacy Definition https://namle.net/resources/media-literacy-defined/.

2007/883/EC), sees Media Literacy as a key factor of digital citizenship, i.e., as " *the ability of an individual to consciously and responsibly make use of virtual media*" and with the ability to develop critical sense towards the information received, transforming from a passive receptor of information into an active subject.

It is in this key that Media Literacy is combined with Media Education, becoming a fundamental prerequisite for countering the risks of misinformation, and it is in this key that the MLvFN Research that, in mapping the best and most recent initiatives developed by Italian entities nationwide on Media Education has thus returned "*a snapshot of the many activities to counter fake news that have matured in the broader framework of promoting Media & Information Literacy skills in our country.*"

In particular, from the documentation tracked down through desk analysis by Università Cattolica del Sacro Cuore di Milano, it is revealed that "*the most accomplished form of intervention was probably to be found in the training projects offered to schools and aimed at both teachers and* students", with a preponderance of secondary school students and teachers (28 projects), followed by those in the lower grades (21 projects) and finally those in primary (12 projects)[81].

The MLvFN Research has thus highlighted that the thematic perspective brings the subject of fake news back within broader contexts: from digital citizenship to online safety to educational technologies. Within this framework*,* the digital competence*,* in all its dimensions*,* emerges as an increasingly relevant element for school innovation (including Media Literacy matter), according to the criteria defined by MLvFN Research as the "*eleventh marker*" (or indicator) of good design[82] .

Taking up succinctly what Prof. Cesare Rivoltella pointed out in his recent work "*Nuovi Alfabeti. Educazione e culture nella società post-mediale*", digital competence includes at least three conceptual dimensions: the critical dimension, the ethical dimension, and the aesthetic dimension*.*

The synthesis of dimensions (not to be confused with those of DigComp) represented in the diagram made by Cremit and illustrated in the MlvFN Research (Figure 1), which is reproduced here, can provide a clear and immediate picture of the extreme articulation of the three mentioned dimensions of digital competence.

[81] Thus, the sum of projects implemented on individual school grades is higher than the number of projects filed.

[82] Based on the documentation collected, the Research subjected the mapped experiences to a qualitative analysis aimed at identifying possible good practices. In order to recognize the projects as such, an analysis grid based on the detection of eleven indicators (or 'markers') was then developed on the basis of the scientific literature. The eleventh marker is represented by the dimension of competence: its explication and discussion allow those who lead or participate in the activities to have a full awareness of the path and the framework in which one moves.

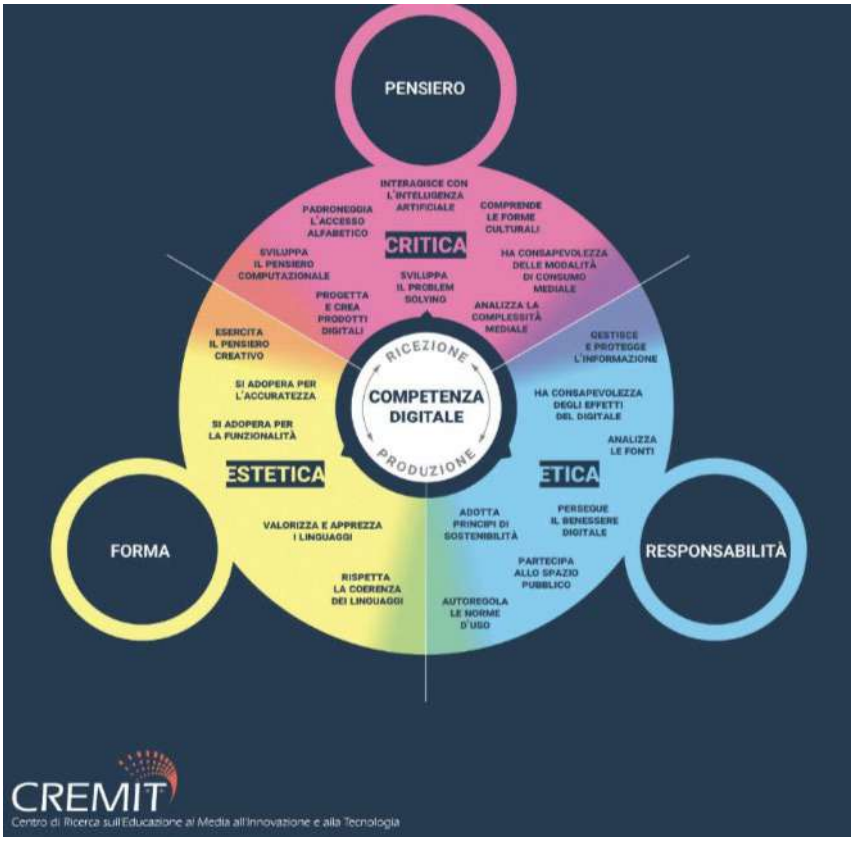

Figure 1. The dimensions of the digital competence (Rivoltella, 2020).

Specifically, the activities analyzed by the MLvFN Research on the point showed in the various projects a focus on combining the critical and ethical dimensions (i.e., on the side of analyzing and breaking down fake news), and on the side of responsibility, while underdeveloped, if not absent, was the aesthetic dimension, "*precisely in relation to the package of knowledge and skills needed by the trainer/teacher/educator conducting the course.*"

This analysis shows that the digital skills gap can only be combated through Media Education actions that overcome some of the limitations of Media Literacy. This is because of the very nature of digital skills, which cannot be reduced to functional teachings but require cultural, political and social contextualization for "the exercise of full, active and informed citizenship".

When we talk about digital innovation within the school then we have to think about a real change in programs and methodologies that necessarily calls into play the digital skills of both teachers and learners. To develop *the eleventh marker*, and the three dimensions of digital competencies, as defined, it is essential to listen to the voices of the protagonists, knowing the needs and demands of those who work and live in the school world, above all: students and teachers. Hence, the need to develop a questionnaire to be distributed in schools.

Starting from the considerations offered by the mapping carried out in the MLvFN Research, it was decided to focus on upper secondary schools (III, IV and V classes) through an experimental survey approach.

The complexities of a cognitive survey carried out by parties outside the school world were well in the minds of the drafters of this Survey. The difficulties encountered are an integral part of the cognitive process and analysis and are useful lessons for similar future initiatives (see on Conclusion the point 4.2: Lessons Learned).

3.3. Objectives and summary of methodology

The goal of the survey is to map the digital needs of students and teachers in terms of Media Literacy to develop useful recommendations for school educational pathways and broad educational offerings.

The survey involved a total of 1079 secondary school students in grades III, IV and V, over the age of 14, and by 325 teachers from more than 200 schools with 3 classes in each school (see attached methodology for more detail).

In the survey, 20 functional questions (structured as a questionnaire) were included to investigate perceived levels of disinformation in relation to a broad set of variables, and assess the best functional tools to build Media Literacy skills, as well as the importance attached to this process.

As stated by the High-Level Expert Group (HLEG) on Fake News and Online Disinformation, Media and Digital Literacy "*is an important action line as a response to disinformation because it can empower individual users and mass empowerment of users will lead to greater social resilience against disinformation and perhaps other disorders of the information age*"[83].

3.4. Main results of the Study

The main findings from the analysis of responses to the two questionnaires addressed to teachers and students, respectively, are briefly presented in this chapter.

In Figure 2 is reported the perceived level of exposure to disinformation (on a scale from 1 to 5, where 1 is "not at all," and 5 is "definitely") for both students and teachers.

[83] Available at https://digital-strategy.ec.europa.eu/en/library/final-report-high-level-expert-group-fake-news-and-online-disinformation

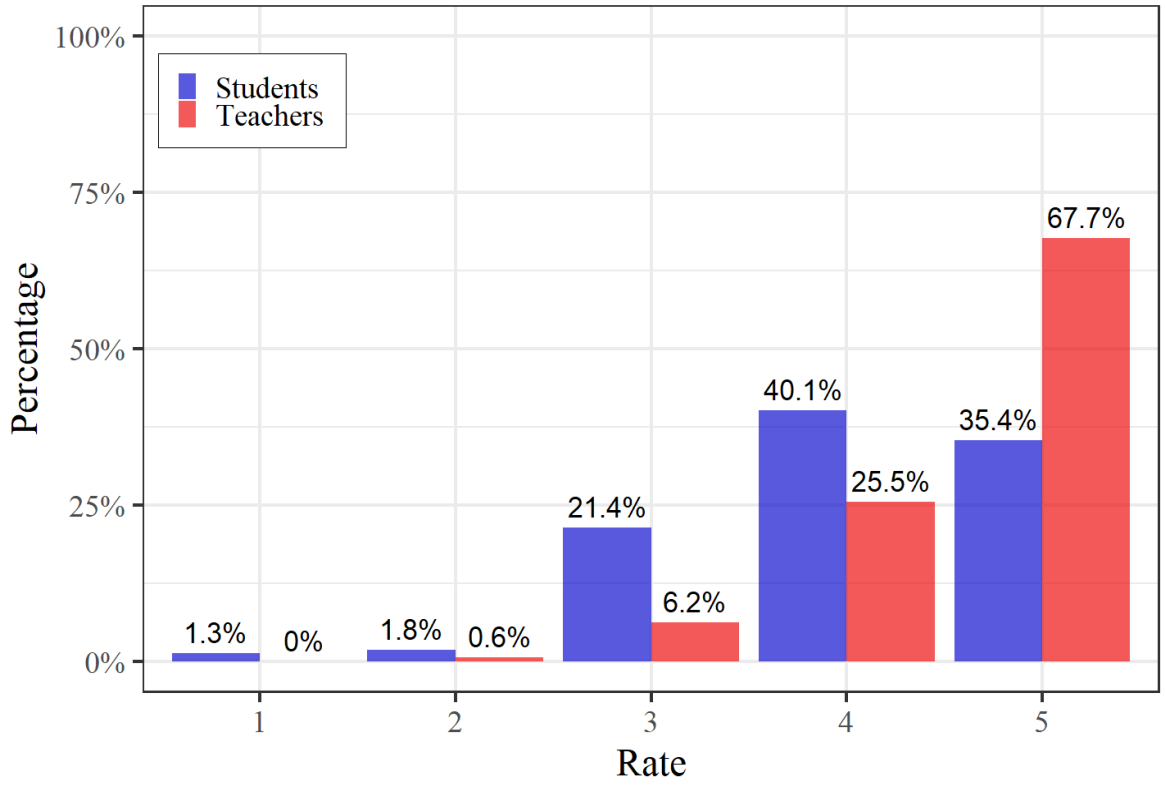

Figure 2*: *Perceived level of disinformation across students and teachers.

The first insight is related to the fact that the perceived level of disinformation across teachers is much higher than within the student group. The average response to this question is indeed 4.07 among the students and 4.60 among the teachers. However, both values are remarkable, confirming the urgency of addressing disinformation in the schools.

The distribution is smoother in correspondence with the perceived level of disinformation through traditional media such as television, newspapers, etc. (in a scale from 1 to 5, where 1 is "not at all," and 5 is "definitely") as evident from Figure 3. The average difference between the two groups remains almost stable compared to the overall result. In fact, the average response to this question is equal to 2.83 from the student side and 3.37 for the teachers. This difference is consistent also considering the perceived level of disinformation through social networks (on a scale from 1 to 5), where the average responses increase up to 3.18 for the students and 3.74 for the teachers, respectively. The distribution of the responses to this question over the two groups is reported in Figure 4. Therefore, what emerges here is that both students and teachers feel more exposed to disinformation via social networks compared to traditional media. However, these results may come from two different dynamics. Regarding the student group, the perception of disinformation is higher in relation to those channels that they use more frequently. Indeed, only 8.9% of them affirm not to use any social media as an information channel. On the contrary, a consistent number of teachers (37.5%) does not recur to social media to gather information, revealing that their risky perception is mostly related to unknown mechanisms ruling social networks.

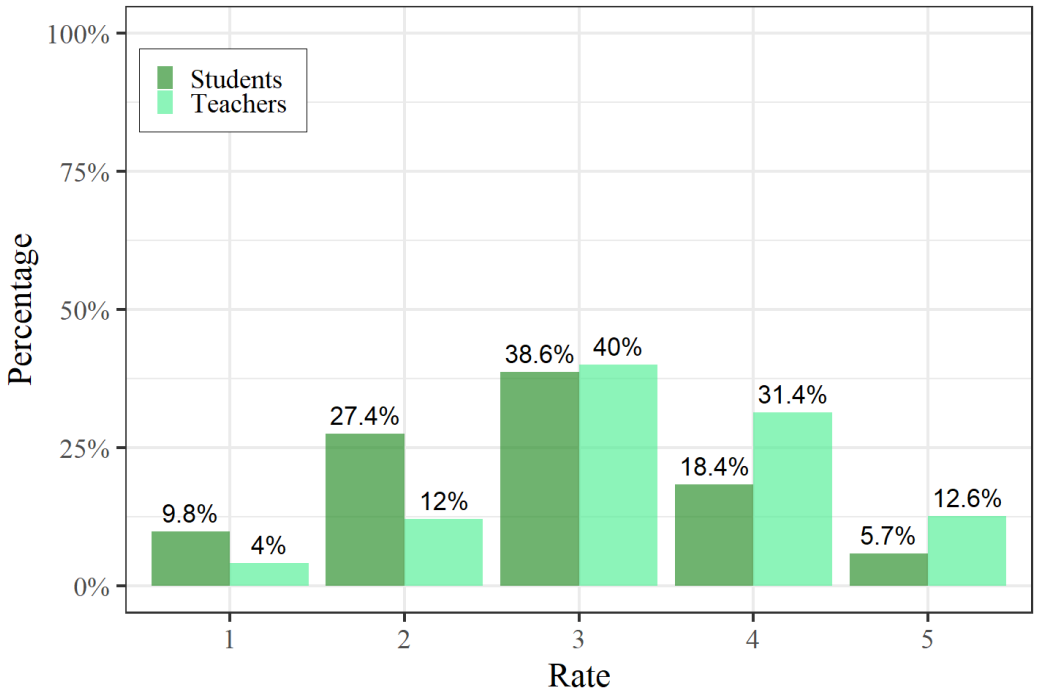

Figure 3: Perceived level of disinformation through traditional media among students and teachers.

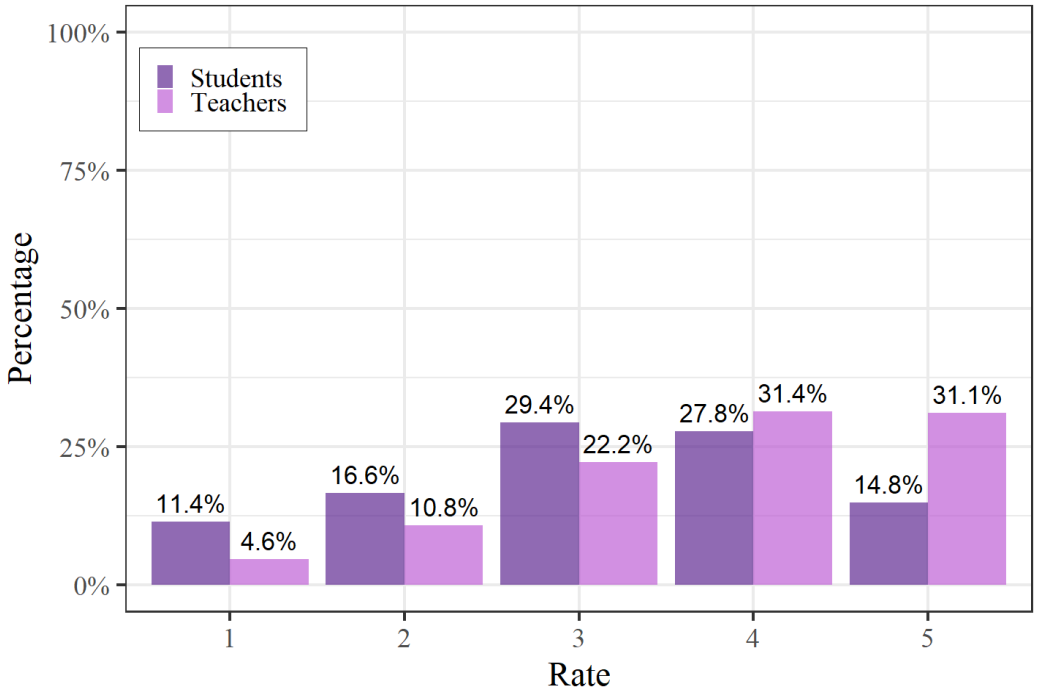

Figure 4: Perceived level of disinformation through social networks among students and teachers.

The distribution of responses to the questions, as well as the related average values, also highlight a first inconsistency in the responses. When disaggregating values by the two major sources of information (i.e., traditional media and social networks), the average level of perception decreases for both students and teachers compared to the average response to the overall level of perceived disinformation. This aspect suggests that there is a high perceived risk of being exposed to fake

news, but when the questions become more specific, the respondents are much more cautious, proving an acknowledged notion of disinformation that is quite abstract.

Moreover, it was asked to the students and the teachers to self-assess their capability to identify fake news. The percentage of replies are equal. For the students, 51% state to be able to do that, 45% state not to be able and 4% select maybe. The same percentage is observed for the teachers: 51% state to be able to do that, 45% state not to be able and 4% select maybe. It was also asked the same question to understand if students consider their colleagues able to identify fake news, and only 13% of them state yes, while 33% no and 54% maybe. This means that there is the possibility that students overestimated their own capabilities or underestimated their colleagues' ones. On the other hand, asking teachers if their colleagues can identify fake news, 34% state yes, 12% no and 54% maybe, showing more confidence in their colleagues.

Focusing on the analysis of the student group, it was interesting to see how the responses about their level of perceived disinformation vary across groups with different characteristics (from Figure 5 to Figure 8). This analysis is necessary to design more tailored recommendations for Media Literacy programs. First, it was investigated how the perceived level of disinformation changes based on the enrolment year of the students. As evident from Figure 5, there is a positive relationship between the perceived level of disinformation and the progressive enrolment year, namely the older the students the higher their awareness on such a potential threat. Moreover, it is possible to assume that the students are more sensitive to disinformation because of an increased capacity for critical analysis, which is reasonable with the course of the education path.

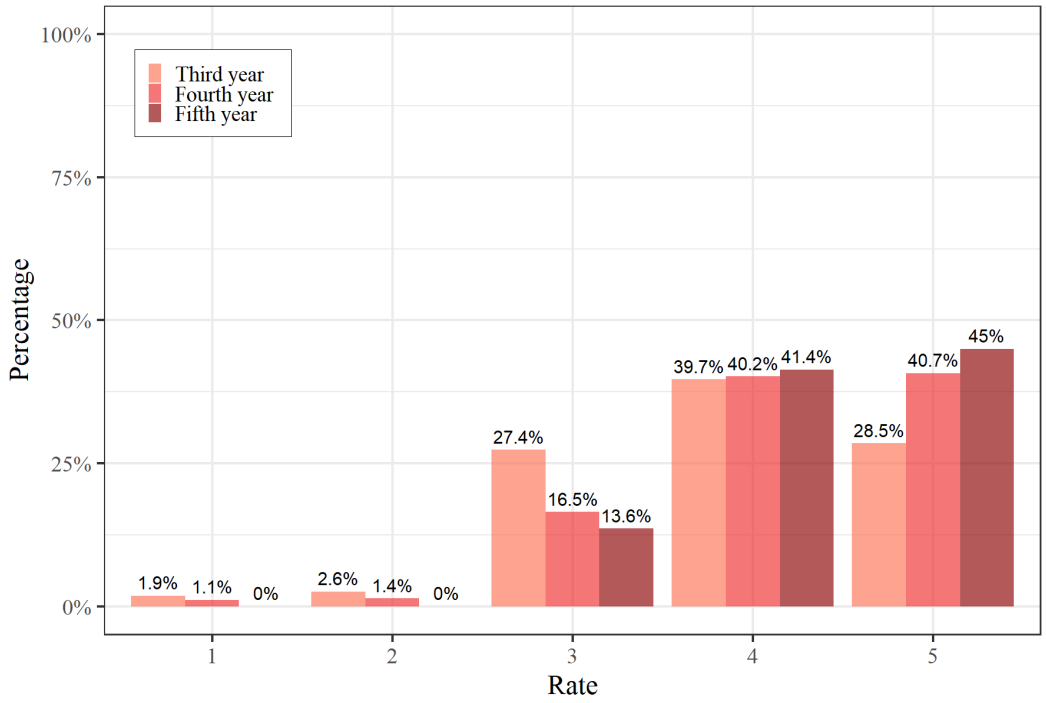

Figure 5: Perceived level of disinformation across students differentiating by enrolment year.

Considering the gender variable (restricted to male and female only), there is not a strong difference across students, as shown in Figure 6. The average perceived level of disinformation is equal to 4.14 for female students and 3.98 for male ones, revealing a slightly higher perception within the first group.

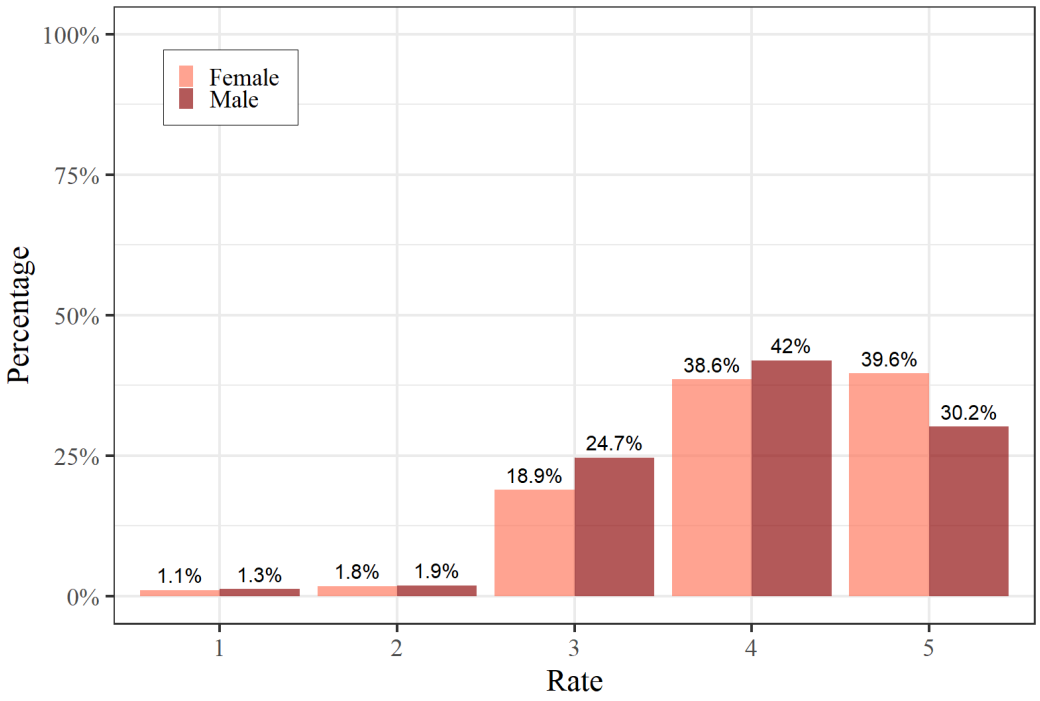

Figure 6: Perceived level of disinformation across students differentiating by gender.

No particular differences emerge between different macro-regions. The distribution of the responses over South and Islands, Centre, and North are similar to each other (as represented in Figure 7). In fact, the average response to this question is 4.19 for South and Islands, 4.14 for Centre, and 3.91 for North, i.e., there is only a thin lower level of perceived disinformation in the North compared to the other macro-regions.

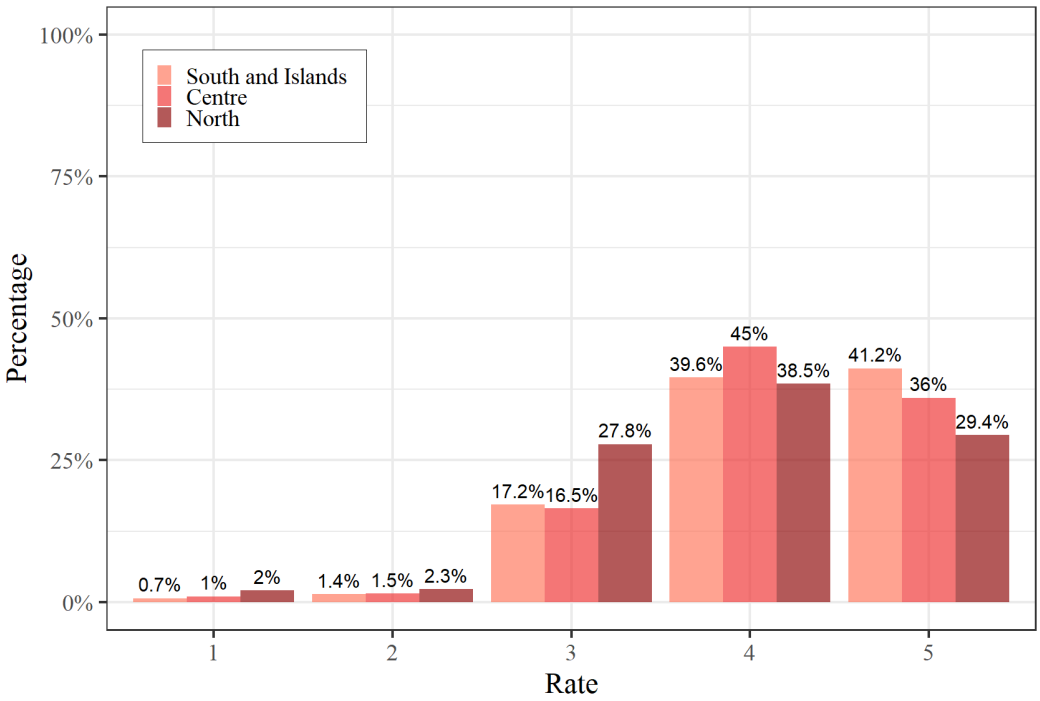

Figure 7: Perceived level of disinformation across students differentiating by the macro-region.

Finally, insights can be drawn from the analysis of the perceived level of disinformation among students based on the different types of institutes. As better detailed in Appendix 1, as a comment to Figure 16 when describing the variables of the analysis, almost all professional institutes are in the North, and are related to third year students. Thus, to disentangle the effects of the institute from those of the macro-region and the enrolment year, the responses from that subsample of third year students from northern regions were analyzed. In this way, it is possible to investigate how the responses vary according to the type of institute in a "ceteris paribus" condition (i.e., it is analyzed how the responses vary depending on the institute the students belong, in the same region and in relation to the same enrolment year, so that the only remaining effect differentiating among students is the one related to their institute). The distribution of these responses is shown in Figure 8.

As it is possible to notice, the perceived level of exposure to disinformation is much higher among high school students than within professional institutes, while technical schools are in the between. In particular, 79.7% of high school students feel highly exposed to disinformation (i.e., they answer 4 or 5 to the question asking for their perceived level of disinformation), whereas the percentage decreases to 63% and 53.7% in correspondence with technical schools and professional institutes, respectively.

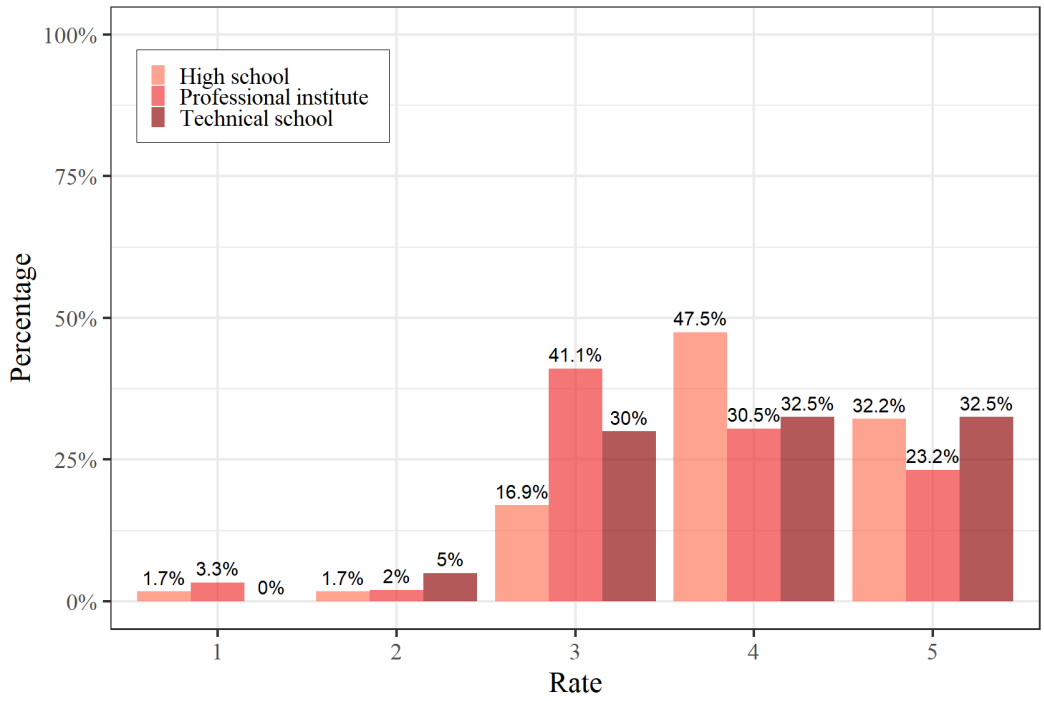

Figure 8: Perceived level of disinformation across students differentiating by type of institute[84] .

Given the emerging trend of increasing level of perceived disinformation over subsequent enrolment years, it was examined how this trend (in terms of average level of perceived disinformation) was related to the frequency of use of traditional and social media as information channels. It was taken into account the use of TV programs, social media pages, newspapers, podcasts, and also friends

[84] This analysis is performed on the subsample of third year students from northern regions, as motivated in Appendix 1 in the section called “The variables”.

and relatives in order to see how the students' habits regarding the use of different sources of information evolve over time. In this case, the responses could range from 1, corresponding to "never," to 5, corresponding to "always". The different trends are reported in Figure 9.

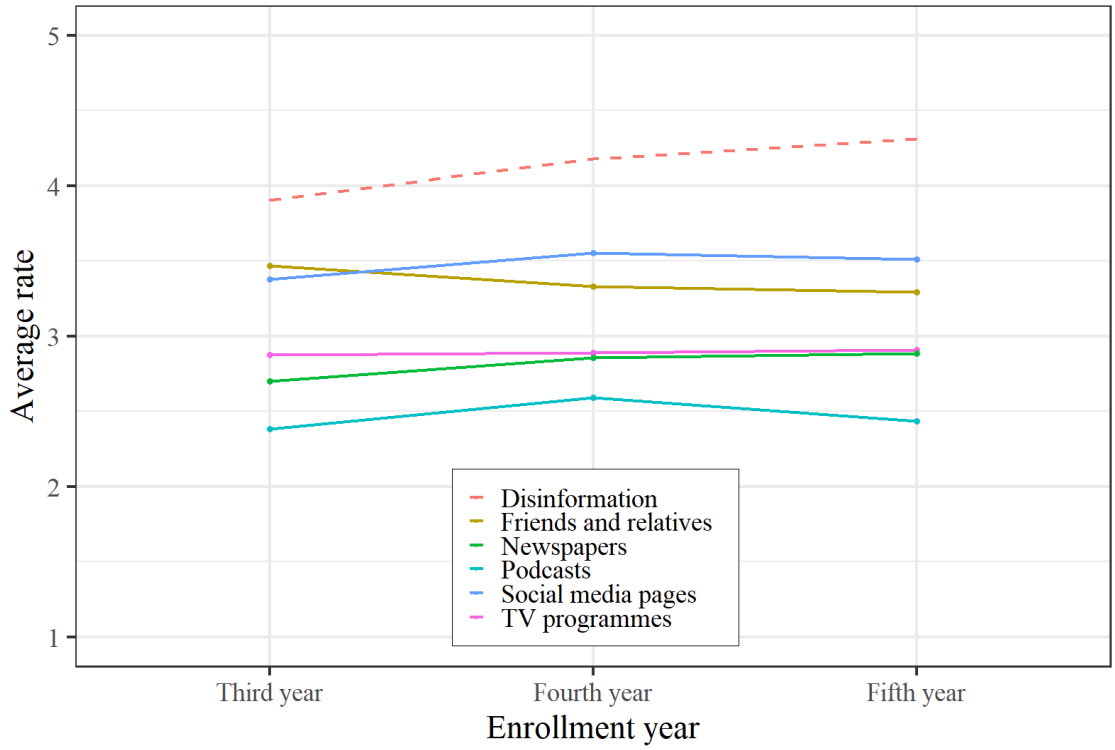

Figure 9: Comparison between the average level of perceived disinformation and the average frequency of use of different information channels over subsequent enrolment years.

It is interesting to notice that the students' habits change over time, and the use of traditional media generally increases over the course of the education path. On the contrary, friends and relatives, which are the first source of information among third year students, steadily decrease their "frequency of use" as an information channel over time. The dynamic of social media instead, is more peculiar since it does not show a monotonic trend, but for both podcasts and social media pages the higher usage frequency appears in correspondence with fourth year students. In the end, there is no clear correlation emerging between the perceived level of disinformation (expressed through the dashed line) and the frequency of use of different information channels over subsequent enrolment years.

In terms of competencies and use of digital tools and devices, it was asked to self-assess a series of skills. The emerging trend shows that for most of the students the use of digital devices is related to the search for online contents connected to the personal interests or the school's needs. The most significant result is that the students have self-confidence using digital tools according to their basic functionalities, but they become less confident in self-assessing their capabilities in understanding the peril of disinformation. An aspect to stress is that most of the respondents are interested in knowing more about privacy and GDPR, while they are not interested in participating in the public

debate online. It also emerged that the schools are not promoting participation to events, workshops, or fairs to learn more about digital competencies.

More specifically, in relation to the necessity of increasing the debate on trusted information and disinformation in the schools, students would like to have the opportunity to learn more about specific topics that can be affected by disinformation campaigns (e.g., pandemic, vaccines, etc.) and have the chance to learn from different points of view to develop critical thinking.

Finally, it was investigated the interest of students in developing Media Literacy competencies, and the interest of teachers in attending courses to build competencies as Media Literacy educators.

Based on their responses, 39.9% of the students would like to acquire more competencies on Media Literacy. To this aim, the majority of students state that the best figures to talk about disinformation in the classes to increase their awareness on this theme should be topics' experts and researchers. On the other hand, the most suitable figure to help them build Media and Digital Literacy competencies is the media educator, i.e., an expert on digital media, followed by trained teaching staff, journalists, and their own teachers. These results are represented in Figure 10. Notice that here the students could select more than one response; thus the sum of the values is greater than the number of respondents. Finally, to increase their Media and Digital Literacy, students would appreciate short courses organized by fact checkers, or free access to a catalogue of topics where to find relevant and reliable sources.

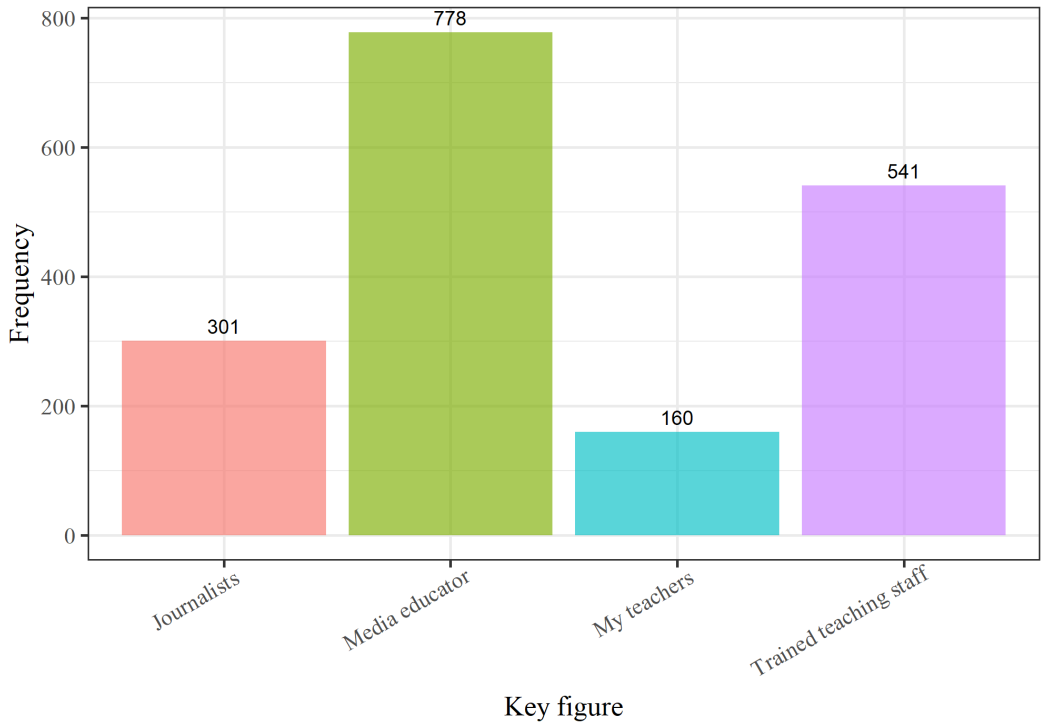

Figure 10: Key figures to build Media Literacy competencies according to the students.

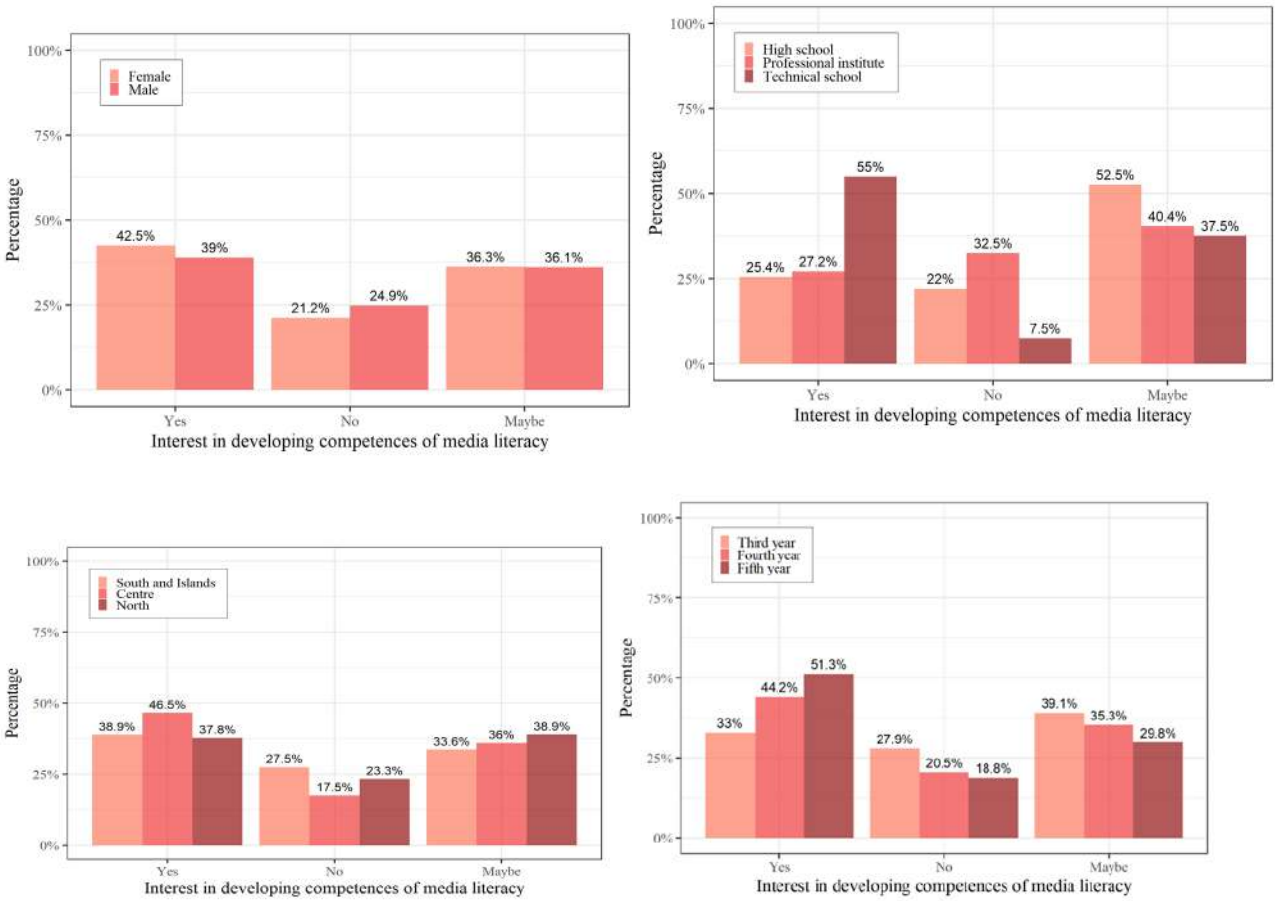

Figure 11: Students' interest in developing Media Literacy skills differentiated by the different variables[85] .

In terms of interest in developing Media Literacy competencies (Figure 11), no gender effect emerges among the student group. Similarly, there is no critical difference between macro-regions, except for a significant interest in developing Media Literacy competencies from the Centre of Italy. The most interesting insights come from the analysis by enrolment year and institute (considering the subsample of northern third year students as for the previous analyses performed at the institute level). In fact, the students' interest increases as the enrolment year progresses, consistently with the growing perception of disinformation., while it is lower among high school students, differently from the perceived level of disinformation, where this category is the most sensitive one.

As for the teachers, they also were asked to indicate the best figure to talk about disinformation in the schools, and their preferences went to science communicators and researchers. Moreover, it was asked them to rate from 1 to 5 the most appropriate figure to teach digital and Media Literacy to the students (where 1 corresponds to "not at all" and 5 corresponds to "absolutely"), and most of them expressed a preference (considering rates equal or higher than 4) for the media educator,

[85] The institute level analysis (in the upper right corner of the figure) is performed on the subsample of third year students from northern regions, as motivated in Appendix 1 in the section called “The variables”.

followed by trained teaching staff (Figure 12). Reasonably, teachers do not feel confident to play this role in absence of appropriate trainings.

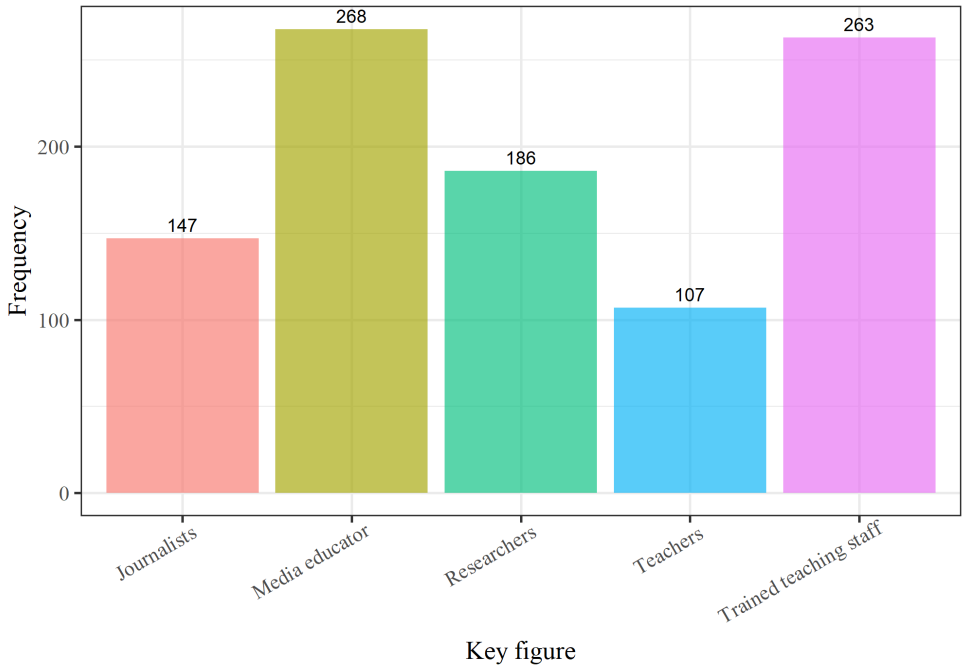

Figure 12: Key figures to build Media Literacy competencies among students according to the teachers.

They were also asked if they are interested in building competencies as media educators: 36% selected yes, 41% maybe and 23% no. The 36% of teachers answering yes showed their willingness to invest (in terms of time expenditure) in their own education as a media educator as follows: 52% select one month, 30% one semester and 6% one year (12% of teachers answer "other"). In general, they are available to pay for the course but 86% state that they prefer doing it by using the funds already granted to teachers (e.g., the *carta docente).* Asking more in detail how much they could consider to spend for the course, 82% state up to 250€, 14% between 250€ and 500€ and 4% of them between 500€ and 1000€. Finally, regarding the type of activities they would prefer to do to become media educators, the majority selected as a first option the possibility to be trained by experts of fact checking, and secondly having access to a catalogue to discover tools and sources to fight disinformation.

Concerning the teachers' interest in building competencies as media educators, in Figure 13 it is reported the distribution of responses by age (excluding the groups under 30 and groups over 60 as they are overlapping with northern and southern regions, respectively), macro-region, and subject (restricted to scientific and humanities because of comparable size), while it is not analyzed the data aggregated by gender as the two sets (i.e., male and female) are too different in terms of size.

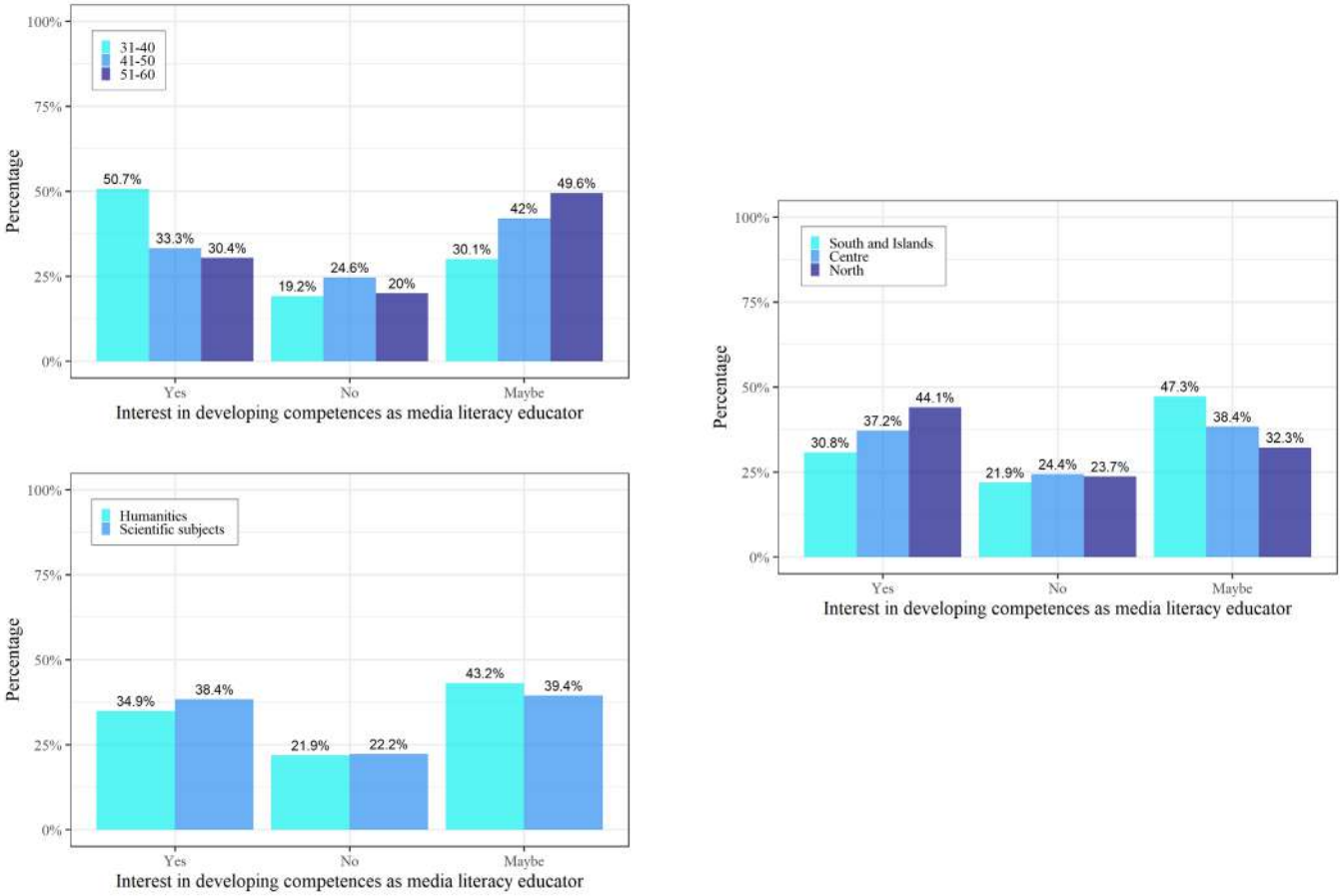

Figure 13: Teachers' interest in attending courses to build competencies as Media Literacy educators differentiated by the different variables.

As it is possible to notice, the major differences are between groups of different ages and from different regions, whereas the responses are similar based on the subject taught. More specifically, teachers in the range between 31-40 years old are much more interested in attending courses to develop competencies as Media Literacy educator compared to older groups. At the same time, teachers from northern institutes are more willing to attend such courses rather than teachers from central and southern regions.

Finally, it was asked to the teachers if they would be in favour of engaging students' families to reflect on the topic of disinformation: the majority (70%) states yes, 21% maybe and 9% no.

As anticipated, the questionnaire also embedded some self-evaluation questions focused on the use of technology and digital devices to better understand the respondents' level of competencies and awareness. It was asked to the students to rank different activities that imply the use of technology and digital devices based on the related frequency of usage. What emerges is that most of the students use digital devices to access information online, both for personal needs and school reasons. In parallel, they express a positive feeling regarding the potential of technology and digital devices to improve the tools and means aimed to increase the learning process at school. On the other hand, very few respondents state that they use digital devices for advanced activities (e.g., coding). Regarding the relationship with the schools, most of the students state that they do not take part with the schools in large events on digital citizenship, nor in events related to technology. They

were also asked to indicate how they select the digital devices to use on daily bases. The vast majority of the students state that they use digital devices and their main functionalities, being able to select the most appropriate device according to the specific kind of activities (shifting from PC to mobile phone, tablet, etc.). Concerning social media and the technology related to their usage, students state to use just the basic functionalities (e.g., creating post, sharing a news), while a lower percentage of students affirm to be able to use advanced functionalities (e.g., creating a blog, share a video on YouTube). A very low number of students (70 respondents out of 1079) state to use social media to participate in the public debate. Evaluating their awareness regarding the use of media, 600 students out of 1079 state that they need to navigate different sources of information, whereas a lower number of respondents are confident in assessing their knowledge of the techniques and methods to share information online.

By comparing the values collected on the capability and awareness of teachers and students in dealing with technology and disinformation, it is possible to affirm that the results showed higher value of awareness and digital skills among the teachers rather than among the students. Results have revealed that teachers are more aware about the risks deriving from the use of technologies. This is particularly true for the questions related to information exploitation. Teachers, indeed, selected higher values to rate their capabilities to benefit from different sources, develop an own opinion and share only reliable and verified news. It is interesting to notice that both groups of respondents express high interest in the topic of data privacy and copyrights issues.

4. Conclusions

4.1. Preliminary reflections

The current analysis helped to clarify how complex the assessment of digital and media skills can be. As widely reported in the literature, there are no unique methods and procedures to do it. Investigation can vary a lot from study to study. Furthermore, there are no available points of reference in terms of numbers for the sample investigated.

Accordingly, for the aim of this Report, the most important action was to derive some lessons based on the scientific literature to apply to our own case. Thanks to the review of the scientific papers published it was possible to design out methods and tools.

According to the findings gathered, this Report shows that there are no major differences in terms of responses from northern, southern and central Italian regions. Students and teachers' responses are quite homogeneous showing that more than territorial differences there are age gaps.

In terms of information exploitation, students inform themselves mainly via social media and the preferred ones are Instagram and TikTok. On the other hand, teachers do not use social media widely, but in case they use it the preferred platform is Facebook. In a similar way, both students and teachers feel more exposed to disinformation via social networks compared to traditional media.

Findings show that young students in the first years rely on friends and relatives to be informed. Then, growing up they start using their own source of information and progressively using traditional sources of information.

Disinformation risk perception increases with the enrolment in the education system: the students from fourth and fifth years are more aware of the risk rather than the students from the third year. Also, it emerges that the risk perception is higher in high schools rather than in technical schools and professional institutes. But it is important to stress that students from technical institutes are more interested in exploring digital issues in their curriculum compared to students from high schools and professional institutes. Generally, the interest in developing competencies of media literacy is not very high: it is urgent to start some awareness campaigns to let the students really understand how crucial these skills are in their life.

Both students and teachers agree that inviting topic experts and researchers could be an incentive to increase awareness on the topic in the schools. On the other hand, concerning Digital and Media Literacy education, both stakeholders prefer to have a specific figure expert in Digital Literacy, a proper "media educator". In fact, teachers do not express a strong interest in exploring and increasing their competences in Digital and Media Literacy, probably due to the current and heavy workflow to which they are exposed, so the "media educator" should really fill this gap in the school system.

Furthermore, both stakeholders welcome the use of an open access catalogue with trusted sources, games, and tools for fact checking and debunking to use on their own to increase their skills and

competencies. This is a practice also exploited in some of the EDMO hubs which could be good to consider.

It is also interesting to stress that a high interest is reported regarding privacy and data issues from both students and teachers showing that this is a sensitive issue or an issue where awareness is sufficiently increased.

4.2. Lessons learned

The entire and articulated process followed to develop the Survey can give some important suggestions for future rounds of investigation and for further studies on the topics involving schools.

The main shortcoming is related to the fact that it has been hard to get the commitment of the schools to respond to the survey. Even if the questionnaire design was conceived to be simple and quick, the response rate was low compared to the result expected, having also an impact on the timing for data collection, analysis and Report writing.

At a general level, the need for in-depth and ongoing Media Literacy awareness work in line with PNSD guidelines is highlighted[86], enhancing the work of schools, the natural hub of Digital Literacy, in greater synergy with the external world.

If Media Literacy is indeed considered a central factor of digital citizenship, it would be important to implement a permanent channel of dialogue between media practitioners, institutions and the school world (nda: there is a working table, but it appears to be not very flexible). In other words, it is a matter of implementing what the PNSD provides for the creation of a *School Innovation Alliance*.

This would allow to fluidify the relationships, overcoming the natural initial cautions that slow down the start of new initiatives, not initially planned in the school calendar, and creating the fertile ground for the development of activities and cross-fertilization of ideas.

Thinking about the dissemination of the questionnaire, it would have been useful to be able to take advantage of a platform or dedicated channel of *non-institutionalized* dialogue – smart and accessible - *but recognized* by schools, to communicate the IDMO project in order to provide the motivation for students and teachers to adhere to the questionnaire.

The email tool has been found to be ineffective and of little grip: schools are often overwhelmed with correspondence and the communication dispersion rate is therefore high.

Throughout the laborious stages of contact with schools, the importance of having a clearly identified project contact person (e.g., prof. Civic Education, media educator) in each school, with whom to interact on a stable basis, emerged. This would allow, among other things, a speeding up of processes, as found in the second phase of the survey in which prior knowledge of the IDMO project

[86] https://www.miur.gov.it/documents/20182/50615/Piano+nazionale+scuola+digitale.pdf/5b1a7e34-b678-40c5-8d26-e7b646708d70?version=1.1&t=1496170125686 ;
https://scuoladigitale.istruzione.it/

and direct interlocution with the reference teacher played an essential role in promoting adhesions to the questionnaire.

Certainly, there is much to be done, especially at the level of involvement and responsibility of teachers, taking into account not only the common elements but also those that distinguish areas, institutes, classes, etc., that emerged in the Survey. For example, the higher interest in developing Media Literacy skills among students in technical schools compared to high schools and vocational colleges, or the greater willingness to take media education courses of teachers from Northern institutes compared to teachers in Central and Southern regions. This in order to identify the best levers for action and incentives (e.g., awarding training credits), calibrating them in relation to different realities.

4.3. Recommendations for Media Literacy programs in Italy

Despite the extensive and continuous process of institutional reflection conducted at the European level, as highlighted above, the concept of *digital competence* declined within the DigComp framework remains functionally oriented, with the risk of making Media Literacy fall within an individual dimension and de-responsibilising system (media and institutional), an aspect of Media Literacy that has been the subject of criticism by some authoritative experts, including the British scholar David Buckingham (Buckingham, Farinacci, Manzoli 2021), author, among others, of the Manifesto for Media Education[87].

For this reason, the rich articulation of DigComp should be exploited to overcome its limitations, clearly positioning "*digital competence" within* the broader context of "*digital citizenship*," and emphasizing the concept of *digital well-being*, the development of critical thinking, and promoting the conscious and, above all, active use of digital technologies.

All of these concepts are already contained (in nuce) in Italian Law No. 92 of August 20, 2019, which, by reintroducing civic education into school teaching"[88], not only identifies Digital Citizenship as one of the three conceptual pillars of the Law[89], but also clearly defines it as "*an individual's ability to consciously and responsibly make use of virtual media".*

To this end, the law recognizes among the essential digital skills and knowledge the *"analyzing, comparing and critically evaluating the credibility and reliability of sources of data, information and digital content".*

Despite this clarity in approach, Media Literacy and Media Education have yet to find proper formalization/legitimization at the curricular level.

So, while there is a general consensus on the need for Media Literacy in academic and institutional circles, which is also reflected in the responses to questionnaires by faculty and students, the

[87] Un Manifesto per la Media Education, Mondadori Università, 2020.
[88] Law Aug. 20, 2019, No. 92, "Introduction of school teaching of civic education" https://www.gazzettaufficiale.it/eli/id/2019/08/21/19G00105/sg (accessed 8/28/2023)
[89] https://www.miur.gov.it/documents/20182/0/ALL.+Linee_guida_educazione_civica_dopoCSPI.pdf/8ed02589-e25e-1aed-1afb-291ce7cd119e?t=1592916355306

different ways of understanding and implementing it deliver a varied educational picture with obvious implications.

To unleash its full "cultural potential", Media Literacy and Media Education should, therefore, be integrated into a unified school curricular framework, while also promoting a more dynamic exchange of experiences throughout the country, both in school and out-of-school settings.

This, as pointed out in the Media Literacy versus Fake News Research, could be fostered through the creation of a place (national database) institutionally deputed to systematically collect documentation related to the implementation of Media Education and Media Literacy training projects.

The need for the inclusion of "*media as an integral resource in educational intervention*" (Rivoltella 2001, p.37) is all the more urgent because of the whirlwind development of communication technologies, especially Artificial Intelligence, with all that this entails and will entail in terms of information management and use.

The results of the present Survey show the need for work on the dissemination and promotion of Media Education, with the involvement of media actors, in synergistic action with school practitioners. A good combination of educational rigor, which can be provided by teachers, and creativity and know-how, provided by information workers (fact-checkers, journalists, media experts), could open new avenues.

The introduction of a *media educator* figure who can cross-integrate digital skills applied to different fields of knowledge, including supporting teachers, could also be the key to introducing innovation while respecting the course of each institute's curricula.

In a nutshell, it is about implementing and relaunching what is encapsulated in the premises of the PNSD, for the establishment of *An Alliance For School Innovation*, bringing different worlds together in the common challenge of knowledge which, through school and with school, intersects the future of society as a whole.

According to the main findings, hereafter the main recommendations for institutes are reported:

1- **Improving schools' programs with the aim to help the students in increasing higher digital skills together with complex thinking skills** (**such as analyzing, evaluating, and producing media messages).** Students are quite confident in using technology and digital devices for basic functions, but they are less confident of advanced functions, and it is the same for the use of social media.

2- **Deploying a special action to support young students in the primary and secondary classes in facing the topic of disinformation and the importance of digital skills**.

3- **Inviting families to join courses or workshops to reflect all together on the topic**. Younger students rely on family and friends to be informed; in parallel, teachers welcome the idea to engage families in facing the issue. This suggestion is specially addressed to the schools.

4- **Investing in the creation of a media educator in all the schools**. From this Report it emerges that a defined figure of a media educator would be appreciated to enhance the

competencies and the awareness. The recommendation is to reflect on a new professional figure to insert in the schools' curricula.

5- **Investing in the creation of an open access catalogue to fight disinformation**. Both students and teachers would like to have access to a free source where to find information and tools to prepare themselves against disinformation. It could be useful to check how other hubs have structured such report replicating the experience.

4.4. Final considerations

The results of the present research lie not only in the outcome of the questionnaire, but in the entire survey process, which enables the acquisition of useful elements of strategies and methods for future similar research studies.

In fact, the research was also a valuable field of experimentation for cooperation and confrontation not only between communication operators (Tim and RAI) and the research sector (T6 Ecosystems) and academic field (LUISS), but also between them and the school world. The constant consultation at all the articulated stages of the research developed an important understanding that enabled the difficulties encountered to be overcome with creative approaches and solutions.

As highlighted in this deliverable, the conceptual and operational tools at both the EU and national levels are not lacking. The issue that arises today is about their practical implementation. In this direction, we argue for the relevance of periodically re-proposing monitoring of digital needs and the state of Media Education and Media Literacy teaching at the national and European levels.

Some concluding remarks that can be drawn from the research:

- The goal of providing tools and methods for the exercise of critical thinking, enhancing the skills and thus the ability of young people to make choices, as students and as citizens, must be the main objective of Media Literacy, brought out of the enclosure of a merely functional conception.

- The educational strategies activated, in the absence of standardization of Media Literacy teaching at the national level, offer a too varied set that hinders the sharing and pooling of practices. Hence the importance of codifying the teaching of Media Literacy in the school curricula of all educational cycles, starting from kindergarten through secondary school.

- The activation of a Documentation Center (national data base) that collects best practices in media education and makes documentation and resources available to schools and local and national associations, experts and institutions can be a valuable tool for dissemination and promotion of Media Literacy, including its aspect of countering misinformation.

- The development of a collaborative network among schools, associations and media practitioners, can be a multiplier factor in the dissemination and consolidation of the most effective and innovative practices.

- The use of a contamination of languages, didactic and media, visual and verbal, analog and digital, can be the right mix to reach all stakeholders more effectively, introducing new knowledge, new languages and contents within the schools. It is therefore a matter of linking educational objectives with the most appropriate intervention tools, developing the integration of audiovisual and multimedia materials, starting with those that are provided by the public broadcasting service in the context of media educational projects.

- In order to fully meet today's educational challenge, it is necessary to promote the creative use of acquired digital skills, both by teachers and students, by encouraging the production of new, flexible materials in the classroom, through the use of multimedia and cross-media toolkits.

- Finally, it seems urgent to incentivize (with adequate resources and tools) the updating of teachers, according to the guidelines of the National Digital School Plan (PNSD), enriching teachers' training courses with media educational skills and providing for the inclusion and integration of the figure of the media educator, as a strategic role in the development of this discipline teaching, both in school and out-of-school settings.

-In this way, it will be possible to fully and concretely implement what the PNSD advocates for active participation in the digital society, transforming *"students from mere consumers into critical consumers and producers of digital content and architectures, capable of developing skills across all sectors and occupational fields; able to solve problems, concretize ideas, acquire autonomy of judgement, creative thinking, awareness of their own abilities, pliability and flexibility in the search for* solutions"[90].

[90] https://scuoladigitale.istruzione.it/pnsd/ambiti/competenze-e-contenuti/

Main References

Akcayoglu, D. I., & Daggol, G. D. (2019), *A study on the perceived Media Literacy level of preparatory year students in a university setting*, "Contemporary Educational Technology", 10(4), 416-429.

Alava, S., Frau-Meigs, D., & Hassan, G. (2017), *Youth and violent extremism on social media: mapping the research*, UNESCO Publishing.

Buckingham, D. (2008), *What do young people need to know about digital media*, in Colin Lankshear, Michele Knobel (eds.), "Digital literacies: Concepts, policies and practices", Peter Lang Pub Inc.

Buckingham, D. (2015), *Defining digital Literacy-What do young people need to know about digital media?*, in "Nordic journal of digital Literacy", 10(Jubileumsnummer), 21-35.

Buckingham, D., Farinacci, E., Manzoli, G., (2021), *Media Education in the Digital Age: An Interview with David Buckingham*, in "Media e/o alfabetizzazione? Didattica dei media, didattica coi media", Sociologia della comunicazione 62(XXXII), Franco Angeli, Milano.

Dame Adjin-Tettey, T. (2022), *Combating fake news, disinformation, and misinformation: Experimental evidence for Media Literacy education*, "Cogent Arts & Humanities", 9(1), 2037229.

European Commission (2007), *Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions. A European Approach to Media Literacy in the Digital Environment*, Commission Communication 2007/883/EC, December 20, 2007. https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:52007DC0833

European Commission (2009), Recommendation on Media Literacy in the digital environment for a more competitive audiovisual and content industry and an inclusive knowledge society, (2009/625/EC) https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009H0625

European Commission (2012), *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions: "Rethinking Education: investing in skills for better socioeconomic outcomes", Strasburgo, 20.11.2012 COM(2012), 669 final* https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:52012DC0669

European Commission, Directorate-General for Communication Networks, Content and Technology (2018), *A multi-dimensional approach to disinformation. Report of the independent High level Group on fake news and online disinformation*, European Union http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=50271

European Commission (2020a), *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee Of The Regions: "A Skills Agenda for Europe for Sustainable Competitiveness, Social Equity and Resilience"* {SWD(2020) 121 final}, {SWD(2020) 122 final eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0274&from=EN

European Commission (2020b), *Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions On Making A European Area Of Education By 2025*, {SWD(2020) 212 final} eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0625

European Commission (2020c), *DigCompSAT A Self-reflection Tool for the European Digital Competence Framework for Citizens* https://publications.jrc.ec.europa.eu/repository/handle/JRC123226

European Commission (2021), *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: "2030 Digital Compass: the European way for the Digital Decade"*, Brussels, 9.3.2021 COM(2021) 118 final https://commission.europa.eu/system/files/2023-01/cellar_12e835e2-81af-11eb-9ac9-01aa75ed71a1.0001.02_DOC_1.pdf

European Commission (2022a), Directorate-General for Education, Youth, Sport and Culture, *Progress towards the achievement of the European Education Area – Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions*, Publications Office of the European Union, 2022, https://data.europa.eu/doi/10.2766/059480

European Commission (2022b), *The Digital Economy and Society Index (DESI)*, The Digital Economy and Society Index (DESI) | Shaping Europe's digital future (europa.eu)

European Commission (2023), *DESI Country profile, Countries' performance in digitisation*, https://digital-strategy.ec.europa.eu/en/policies/countries-digitisation-performance

European Council (2018a), Recommendations on key competences for lifelong learning, (2018/C 189/01) https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0604(01)

European Council (2018b), *Recommendations on promoting common values, inclusive education, and the European dimension of teaching*, (2018/C 195/01) https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0607(01)&from=DE

European Union (2023), *European Declaration on Digital Rights and Principles for the Digital Decade*, 2023/C 23/01, PUB/2023/89 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOC_2023_023_R_0001

European Parliament and European Council (2006), *Recommendation on key competencies for lifelong learning* (2006/962/EC) https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:394:0010:0018:it:PDF

European Parliament and European Council (2007), *Audiovisual Media Directive,* 2007/65/EC https://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:32007L0065

European Parliament and European Council (2022), *Decision (EU) 2022/2481: Establishing the Strategic Programme for the Digital Decade 2030* Publications Office (europa.eu)

Guzmán Marín, F. (2012), *El concepto de competencias*, "Revista iberoamericana de educación".

Hobbs, R. (2008), *Measuring the effects of Media Literacy education*, “Journal of Communication”, 58(3), 336-356.

Kerrigan, P., McGuinness, C., Fulton, C., Siapera, E., Carrie, D., & Pope, P. (2023), *Designing a Media Literacy Training Programme for Public Library Staff in Ireland: Preliminary results and observations of a University-Public Library Collaboration*, “Public Library Quarterly”, 42(2), 168-189.

Livingstone, S., & Thumim, N. (2003), *Assessing the media literacy of UK adults: A review of the academic literature*. https://eprints.lse.ac.uk/21673/1/Assessing_the_media_literacy_of_UK_adults.pdf

Maksl, A., Ashley, L. L., & Craft, B. (2015), *The development and validation of the Media Literacy Assessment for K-12 Students (MLA-K-12)*, “Communication Education”, 64(1), 20-41.

Ministero dell’Istruzione, dell’Università e della Ricerca (2015), *Piano Nazionale Scuola Digitale*, pnsd-layout-30.10-WEB.pdf (istruzione.it)

Ministero dell’Istruzione (2022), *Piano Scuola 4.0* https://www.miur.gov.it/documents/20182/6735034/PIANO_SCUOLA_4.0.pdf/

Pereira, S., & Moura, P. (2022), *Assessing Media Literacy competencies: Reflections and recommendations from a quantitative study*, “Journal of Media Literacy Education Pre-Prints”, Retrieved from https://digitalcommons.uri.edu/jmle-preprints/30

Renee, H. (2010), *Digital and Media Literacy: A plan of action*, New York: The Aspen Institute.

Rychen, D. S., & Salganik, L. H. (Eds.) (2003), *Key competencies for a successful life and a well-functioning society*, Hogrefe & Huber Publishers.

Rivoltella P.C. (2001), *Media education. Models, experiences, disciplinary profiles*, Carocci, Rome.

Rivoltella P.C. (2020), *Nuovi alfabeti. Educazione e culture nella società post-mediale*, Scholé - Morcelliana, Brescia.

Schilder, E., Lockee, B., & Saxon, D. P. (2016), *The Challenges of Assessing Media Literacy Education*, “Journal of Media Literacy Education”, 8(1), 32-48.

Simons, M., Meeus, W., & T'Sas, J. (2017), *Measuring Media Literacy for Media Education: Development of a questionnaire for teachers' competencies*, “Journal of media Literacy education,” 9(1), 99-115.

Tandoc Jr, E. C., Yee, A. Z., Ong, J., Lee, J. C. B., Xu, D., Han, Z., Cayabyab, M. Y. (2021), *Developing a perceived social media Literacy scale: evidence from Singapore*, “International Journal of Communication”, 15, 22.

Rai Ufficio Studi e Università Cattolica del Sacro Cuore di Milano (2022), *Media Literacy versus Fake News*, IDMO https://www.idmo.it/2022/05/19/fake-news-rai-cattolica/

UNESCO (2013), *Media and Information Literacy curriculum for teachers*, Paris: UNESCO https://unesdoc.unesco.org/ark:/48223/pf0000192971

Vuorikari, R., Kluzer, S. and Punie, Y. (2022), *DigComp 2.2: The Digital Competence Framework for Citizens*, EUR 31006 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-48882-8, JRC128415 https://publications.jrc.ec.europa.eu/repository/handle/JRC128415

List of main abbreviations

AGCOM	*Autorità per le Garanzie nelle Comunicazioni*
AI	*Artificial Intelligence*
DSA	*Digital Service Act*
EC	*European Commission*
EDMO	*European Digital Media Observatory*
EEAS	*European External Action Service*
EP	*European Parliament*
GDPR	*General Data Protection Regulation*
HLEG	*High Level Expert Group*
SOMA	*Social Observatory for Disinformation and Social Media Analysis*
SSO	*Social Science One*

More information about this document

Project acronym	*IDMO*
Project full title	*Italian Digital Media Observatory*
Grant Agreement no	*INEA/CEF/ICT/A2020/2394428*
Deliverable number	*D5.2*
Deliverable title	*Digital Media Literacy Gaps and Needs*
Deliverable nature	*Report e Survey*
Dissemination level	*Report published on IDMO website*
Work package and Task	*WP5; TASK 5.2*
Contractual delivery date	*01.06.2023* *(cfr. Grant Agreement)*
Actual delivery date (agreed with PO)	*30.09.2023*
Authors	*Francesco Giorgino, RAI* *Alessandra Paradisi, RAI* *Alessandra Pratesi, RAI* *Simona De Rosa, T6 Ecosystems* *Andrea Ancona, T6 Ecosystems* *Andrea Nicolai, T6 Ecosystems* *Chiara Pirozzi, T6 Ecosystems* *Felicita Di Rosa, TIM* *Maria Grazia Guidone, TIM* *Salvatore Custureri, LUISS*
Reviewers	*Federica D'Urso, LUISS*

Work phases	***Date***	***Name***
First draft index	*15/09/2022*	*Simona De Rosa, T6 Ecosystems* *Alessandra Paradisi, RAI*
Research design	*20/09/2022*	*Simona de Rosa, T6 Ecosystems,* *Alessandra Paradisi, RAI*
Questionnaires development	*03/10/22*	*Simona De Rosa, T6 Ecosystems* *Andrea Nicolai, T6 Ecosystems* *Alessandra Paradisi, RAI* *Alessandra Pratesi, RAI* *Felicita Di Rosa, TIM* *Maria Grazia Guidone, TIM*
Methodological note	*10/10/2022*	*Felicita Di Rosa, TIM* *Maria Grazia Guidone, TIM*
Exchange between partners on methodological approach of research	*20/10/2022*	*Simona De Rosa, T6 Ecosystems* *Andrea Nicolai, T6 Ecosystems* *Felicita Di Rosa, TIM* *Maria Grazia Guidone, TIM* *Alessandra Paradisi, RAI* *Alessandra Pratesi, RAI*
Questionnaires setting up	*07/11/2022*	*Alessandra Paradisi, RAI* *Alessandra Pratesi, RAI* *Simona De Rosa, T6 Ecosystems* *Andrea Nicolai, T6 Ecosystems* *Felicita Di Rosa, TIM* *Maria Grazia Guidone TIM*
Schools sample setting up	*23/11/2022*	*Felicita Di Rosa, TIM* *Maria Grazia Guidone, TIM*
Sharing of questionnaires and school sample with the Ministero dell'Istruzione e del Merito - Direzione generale per i fondi strutturali per l'istruzione, l'edilizia scolastica e la scuola digitale.	*24/01/2023*	*Alessandra Paradisi, RAI* *Simona De Rosa, T6 Ecosystems* *Andrea Nicolai, T6 Ecosystems* *Felicita Di Rosa, TIM*
First distribution of the online questionnaires (students and teachers) to the selected schools.	*06/02/2023*	*Simona De Rosa, T6 Ecosystems* *Andrea Nicolai, T6 Ecosystems* *Andrea Ancona, T6 Ecosystems* *Salvatore Custureri, LUISS*
Relaunch online questionnaires (students and teachers) with the selected schools.	*06/03/2023*	*Alessandra Paradisi, RAI* *Alessandra Pratesi, RAI* *Simona De Rosa, T6 Ecosystems* *Andrea Nicolai, T6 Ecosystems* *Andrea Ancona, T6 Ecosystems* *Salvatore Custureri, LUISS*
Second distribution of the online questionnaires (students and teachers) to the	*06/04/2023*	*Alessandra Paradisi, RAI* *Alessandra Pratesi, RAI*

selected additional schools (sample of opportunities).		*Simona De Rosa, T6 Ecosystems* *Andrea Nicolai, T6 Ecosystems* *Andrea Ancona, T6 Ecosystems* *Maria Grazia Guidone, TIM* *Salvatore Custureri, LUISS*
End of online Survey	*09/06/2023*	*Simona De Rosa, T6 Ecosystems* *Andrea Nicolai, T6 Ecosystems* *Andrea Ancona, T6 Ecosystems*
First draft of the Research	*30/08/2023*	*Alessandra Paradisi, RAI* *Simona De Rosa, T6 Ecosystems* *Andrea Nicolai, T6 Ecosystems* *Andrea Ancona, T6 Ecosystems* *Chiara Pirozzi, T6 Ecosystems* *Felicita Di Rosa, TIM*
Review and definition of final text	*12/09/2023*	*Francesco Giorgino, RAI* *Alessandra Paradisi, RAI* *Simona De Rosa, T6 Ecosystems,* *Andrea Nicolai, T6 Ecosystems* *Andrea Ancona, T6 Ecosystems* *Chiara Pirozzi, T6 Ecosystems* *Felicita Di Rosa, TIM*
Sent to translation	*12/09/2023*	*Salvatore Custureri, LUISS*
Preface	*20/09/2023*	*Francesco Giorgino, RAI*
Sent to internal review	*20/09/2023*	*Alessandra Paradisi, RAI*
Submission	*02/10/2023*	*Salvatore Custureri, LUISS*

Appendix 1: Methodological Framework and Survey set-up

The concept

The structuring of the questionnaire, as well as the articulation of the questions, was based on past international experience, which was then calibrated to national specifics, as outlined above.

The process of devising and structuring the Survey was designed and proposed by T6 Ecosystems, and then refined with project partners through an elaboration phase that spanned more than three months. In parallel, the school sampling process was designed, with valuable implantation work done by TIM.

At both stages, special attention was paid to appropriate institutional dialogue and confrontation. In this perspective, to highlight the fruitful interlocution established by RAI Ufficio Studi with the Ministero dell'Istruzione e del Merito - Direzione generale per i fondi strutturali per l'istruzione, l'edilizia scolastica e la scuola digitale, with which the questionnaire and the sample of selected schools were formally shared, in the autonomy of the methodological and management direction of the overall survey process by the IDMO partners, authors of the Survey.

Particular attention was paid to the issue of privacy. The online questionnaire used was designed to be anonymous and voluntary, in order to ensure the maximum degree of freedom in responses by both teachers and students.

The technological implementation and questionnaire administration were handled by T6 Ecosystems, which then aggregated the responses to provide the anonymous outputs (macro-data) useful for the research. Throughout the duration of the survey, followed by the administration of the questionnaires and up to the closure of the questionnaire collection process, the working group ensured constant monitoring, through special SALs and checks on the progress reports of the Survey accessions; the approach adopted allowed for the implementation of corrective interventions, functional to the behaviors of the surveyed population, to ensure adequate significance to the final sample.

The tool used is a structured survey on Google Form with almost all closed questions based on Likert Scale. The reason why we adopted this strategy is to facilitate the data collection. The survey was designed in Italian to encourage participation from the target groups. The survey was completely anonymous and no sensitive information have been collected. To avoid any possible issue related to GDPR, the survey was distributed and compiled only from students of 14 years old or more. Both surveys are based on 20 questions.

It was then chosen to distribute the questionnaire by addressing an e-mail (see documents in the Appendix 2) to the mechanographic addresses of the institutions selected from the IDMO mailbox.

Telephone and email recalls were also conducted by individual IDMO partners between late February 2023 and late March 2023 to further raise awareness of the initiative among schools.

This first phase of the survey did not produce the expected numerical results, probably due to the onerous nature of school curricula and a complex school calendar, and required rethinking the initial sample by expanding the initiative to include other secondary schools previously involved in training activities developed by IDMO, as detailed below.

This second phase, which took place in April and May 2023, achieved an adequate and well-distributed number of responses by geographic area and by type of institution that, despite the change in the sample, is believed to ensure significance of the results. In fact, more than 1,000 students and more than 300 teachers responded to the questionnaires.

The questionnaire

The review of published papers on the assessment of Media Literacy components, provided some insights useful for the methodological approach. In particular: the choice of self-evaluation of competencies as an instrument often used to evaluate how confident people feel about media and digital tools; the target of reference for the investigation (teachers and students). Finally, the use of mixed method approach trying to combine the value of both quantitative and qualitative research. According to these premises, the decision to run the assessment of Media Literacy gaps and needs on students and teacher at the secondary school.

As the target of the investigation were two different groups, the survey was designed using the same structure at the beginning but then differs to collect specific input on different topics. The questions have been structured to respond mainly to two issues:

- what is the perception of stakeholders on the issue of disinformation.
- what are the possible actions and measures to be included in schools for the potential supply of Media Literacy.

The way in which the questions were elaborated always try to use some concepts and information already emerged in the previous collection and analysis activity (IDMO - D5.1) and in the scientific literature review performed. In particular, the survey (attached in the Appendix 2) aimed at collecting feedback on the following issues:

Survey for the students	**Survey for the teachers**
General info on the respondent	General info on the respondent
Self-assessment of the perception of disinformation	Self-assessment of the perception of disinformation
Self-assessment on the skills and capabilities of the use of media and digital the perception of disinformation	Self-assessment on the skills and capabilities of the use of media and digital the perception of disinformation
Input on what students expect to improve media education in schools	Input on how to design media education in the schools from the teachers' perspective

Table 1. Outline of the two surveys

The data collection run from early February 2023 to mid-June 2023 to encourage the participation of the stakeholders as much as possible.

As anticipated, data was collected through online questionnaires in Google Form. The responses to the two questionnaires after being downloaded in Excel format, were analysed in R Studio, a software environment for statistical computing and graphics. All the analyses performed aim to highlight diverging factors between the perceptions of the two groups (students and teachers) about their exposure to disinformation. We also emphasize the emerging gaps and needs, as well as the information habits of both groups of actors, further differentiating by individual level characteristics.

The sampling plan

The sample derivation process constitutes an integral and fundamental part of the research project and was implemented through the cross-sectional involvement of all working group members from the various multidisciplinary entities of the IDMO consortium, namely: RAI, TIM, T6 Ecosystems, and LUISS.

The sample design took into account the cognitive objectives, the target population and the sampling methods most appropriate for the context; in addition, surveys found in the literature for the same target, conducted by relevant research institutes (Invalsi, Istat, Indire, etc.), were referenced.

As previously reported in this report, choices were made to ensure maximum protection of the privacy of the population involved and compliance with current regulations in terms of GDPR; in particular, the Survey is completely anonymous and aimed at students aged 14 years or older, with voluntary participation.

Like the questionnaire, the sampling plan was also submitted for approval to the Direzione generale per i fondi strutturali per l'istruzione, l'edilizia scolastica e la scuola digitale -Ministero dell'Istruzione e del Merito.

In view of the above, the sampling adopted for the survey is complex in nature and was carried out according to the design described below.

Objective of the survey

Mapping the digital needs of students and teachers in terms of Media Literacy in order to develop useful recommendations for school educational pathways and broad educational offerings.

Target population

The set of statistical units involved in the survey consists of secondary school students in grades III, IV and V, over the age of 14, and teachers.

Survey domains

- the entire country
- three geographical areas: North, Central, South and Islands
- Three types of schools; high schools, technical colleges and vocational colleges
- The modes obtained from the intersection of the previous domains.

Sampling design

The sampling implemented is two-stage selection with stratification of first-stage units, and then indirectly of final units. The first-stage units are schools, stratified by geographic area, school type, and size in terms of students. Schools were sampled with probability proportional to the number of pupils.

The second stage is classes, randomly selected from the institutions drawn in the first stage of selection, all students in the classes become part of the sample.

Sample size

The first- and second-stage sample size was defined taking into account both organizational needs and expected significance and consists of 158 schools and 3 classes for each school.

Stratification and selection of the sample of schools

The lists of the total population of schools, used for the stratification and sample selection procedures, are those derived from official ISTAT sources and available as open data [91].

Schools were stratified, according to the domains of interest, into: geographic area (Northeast, Northwest, Central, South and Islands), school type (high schools, technical schools; vocational schools) and size by number of students (small, medium and large schools).

[91] http://dati.istat.it/Index.aspx?DataSetCode=DCIS_SCUOLE

Schools with fewer than 50 students, which typically correspond to night classes, prison schools, hospital education, etc., were excluded from the sample.

The overall sample size of schools was distributed among the strata in proportion to the number of students, with the constraint that each stratum be represented with at least one school.

Sample schools were drawn in each stratum with probability proportional to size in terms of pupils, using the systematic sampling procedure.

Class selection

Each school leader, in the first phase of the survey, was asked to randomly draw one class for school years III, IV and V, for the selected course of study from the sample, with the constraint of involving only students older than 14 years. All pupils over the age of 14 in the class and their teachers become part of the sample. The questionnaire is completed during school hours, under the supervision of a teacher, following the most appropriate access mode for the school and in accordance with the Institute's regulations.

Conducting the survey and solving critical issues that emerged with sample correction

On the extracted sample of 158 schools, several outreach actions were activated to ensure a good level of adherence to the Survey, both in the launch phase and through subsequent multiple recalls, via e-mail and/or telephone.

However, the principle of voluntariness and the difficulty in reaching different school directorates required an intervention to correct the initial sample, which was appropriately shared with IDMO partners and the Ministero dell'Istruzione e del Merito to finalize the survey within the timeframe of the research plan, without further delay.

The survey was therefore extended by supplementing the portion of the initial sample that became available (less than 5%) with an opportunity sample. An additional 48 schools that had previously participated in Media Literacy initiatives conducted by IDMO were thus included, distributed by type of institution and territorial scope.

The increased awareness of the IDMO initiative and the well-established collaborative relationship with the Observatory and project partners thus enabled a higher level of participation in the Survey to be achieved. However, it is believed that the final sampling thus obtained is appropriate to ensure adequate significance of the final sample.

The variables

At the end of the data collection period, it has been received 325 responses from the teachers, and 1079 responses from the students.

Teachers are classified according to their gender (male, female, or prefer not to say), age (less than 30, 31-40, 41-50, 51-60, >60), the macro-region where their school is located (South and Islands, Centre, and North), and the subject they teach (scientific subjects, humanities, technical subjects, legal and economic subjects, support teaching).

Students are classified based on their gender (male, female, or prefer not to say), age (15, 16, 17, 18, 19+), enrolment year (third year, fourth year, fifth year), the macro-region where their school is located (South and Islands, Centre, and North), and the type of institute they attend (high school, professional institute, technical school).

The variables used to classify students and teachers respectively, will be called categories from now on, while the sub-dimensions of each category (e.g., South and Islands, Centre, and North in relation to the category macro-region) are henceforth called groups.

The two datasets are relatively balanced in terms of the categories, as shown in Figure 14 and Figure 15.

As for students, the dataset offers a good representation across genders and ages (except for respondents older than 19). On the other hand, looking at macro-regions, enrolment years and institutes, the distribution over the different groups is less uniform. However, all groups include a satisfactory number of members to perform the analyses we are interested in.

Regarding teachers, the representation in relation to their macro-region is well balanced, while some assumptions are needed in correspondence with the remaining variables.

Analysing data by taking into account the distributions of the respondents will allow us to obtain reliable results and provide an overview of the awareness level and gaps identified in the fields of media literacy and disinformation over the Italian landscape. The robustness of the findings will enable to formulate both general and targeted recommendations for Media Literacy programs.

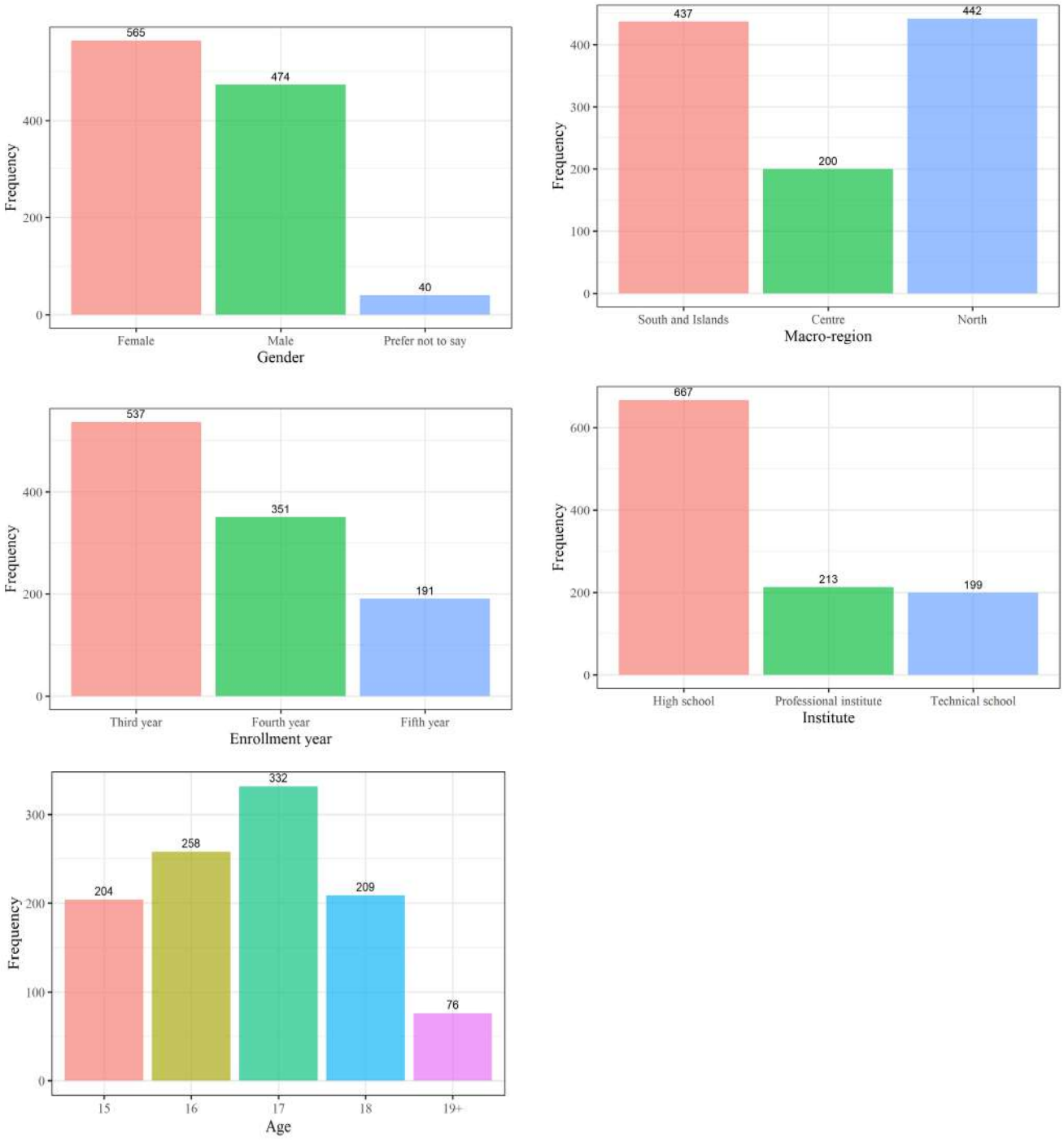

Figure 14. Distribution of students over different categories

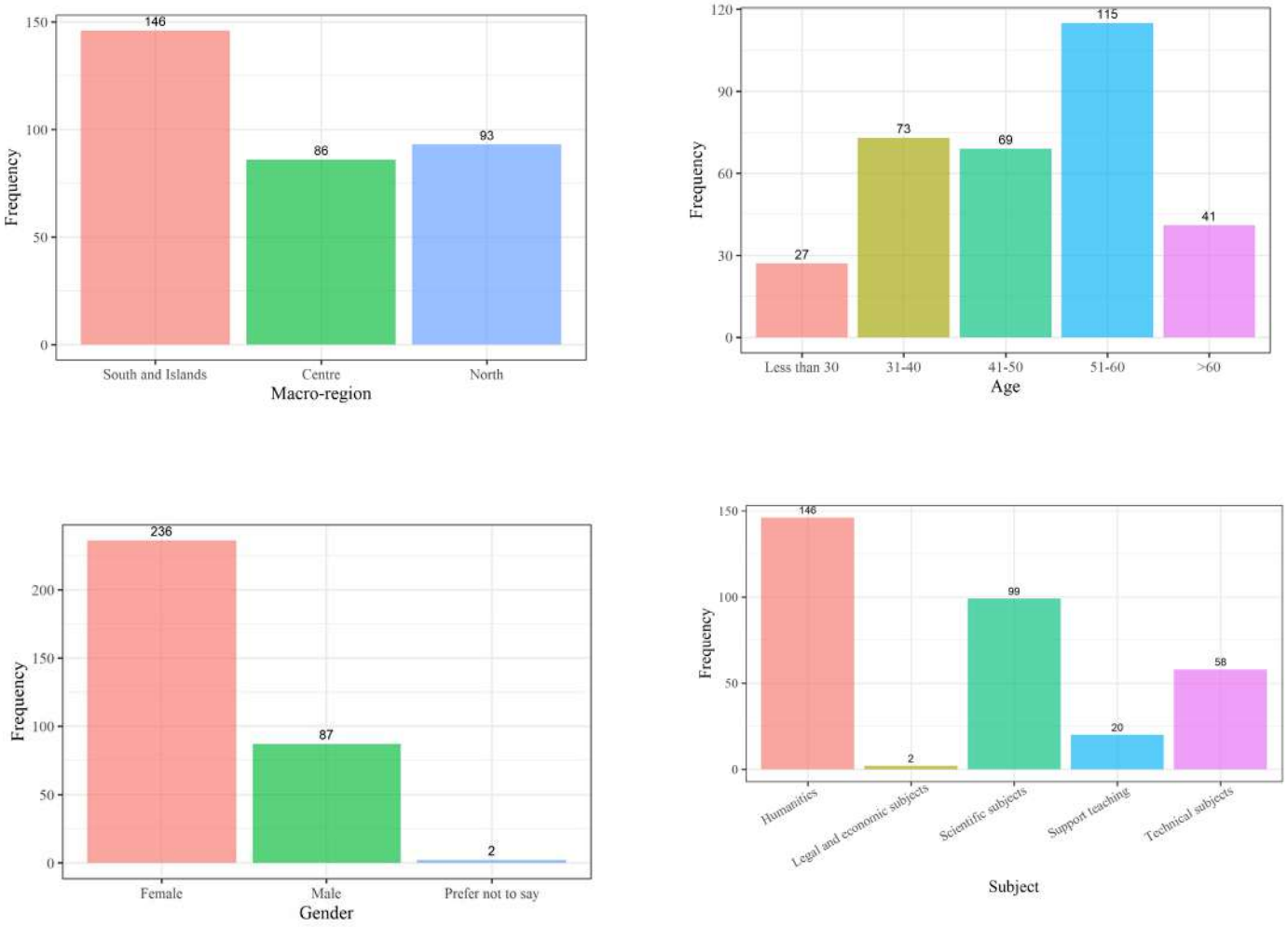

Figure 15. Distribution of teachers over different categories.

Before focusing on the analysis of the results, it is provided here a detailed look into the distribution of respondents over multiple categories. This step is essential to understand if (and eventually in which form) the effects due to one category overlap with those from another category (e.g., a certain response might be driven by the macro-region or by the institute). To this aim, it is assessed that the distributions of the different categories in the sample are not related to each other. In particular, the number of shared members between any pair of groups related to two different categories for both students and teachers is calculated, as represented through heatmaps[92] in Figure 16 and Figure 17, respectively.

[92] In each heatmap there are the groups from one category on the rows (e.g., "third year," "fourth year," and "fifth year" in relation to the enrolment year), and the groups from another category on the columns (e.g., "North," "Centre," and "South and Islands" in relation to the macro-region). The values on the cells represent the number of shared members between the corresponding groups on the related row and column. Cells are coloured according to a scale that ranges from the minimum (less intense colour) to the maximum (more intense colour) number of shared members between any two groups.

In Figure 18, the number of "shared students" between different enrolment years and ages is reported. Since the two categories are overlapping, in our analyses, we decided to drop the variable age for the students, considering only the enrolment year[93]. For instance, looking at the students' distribution (Figure 16), it is possible to notice that almost all professional institutes are located in the North, and are related to third year students. Thus, it would not be possible to provide reliable results differentiated by institutes. Indeed, while high schools and technical schools are well represented over the territory and in relation to different enrolment years, the results from the professional institutes would be affected by geographical and enrolment year sub-dimensions (i.e., it would not be possible to distinguish the different drivers of their responses).

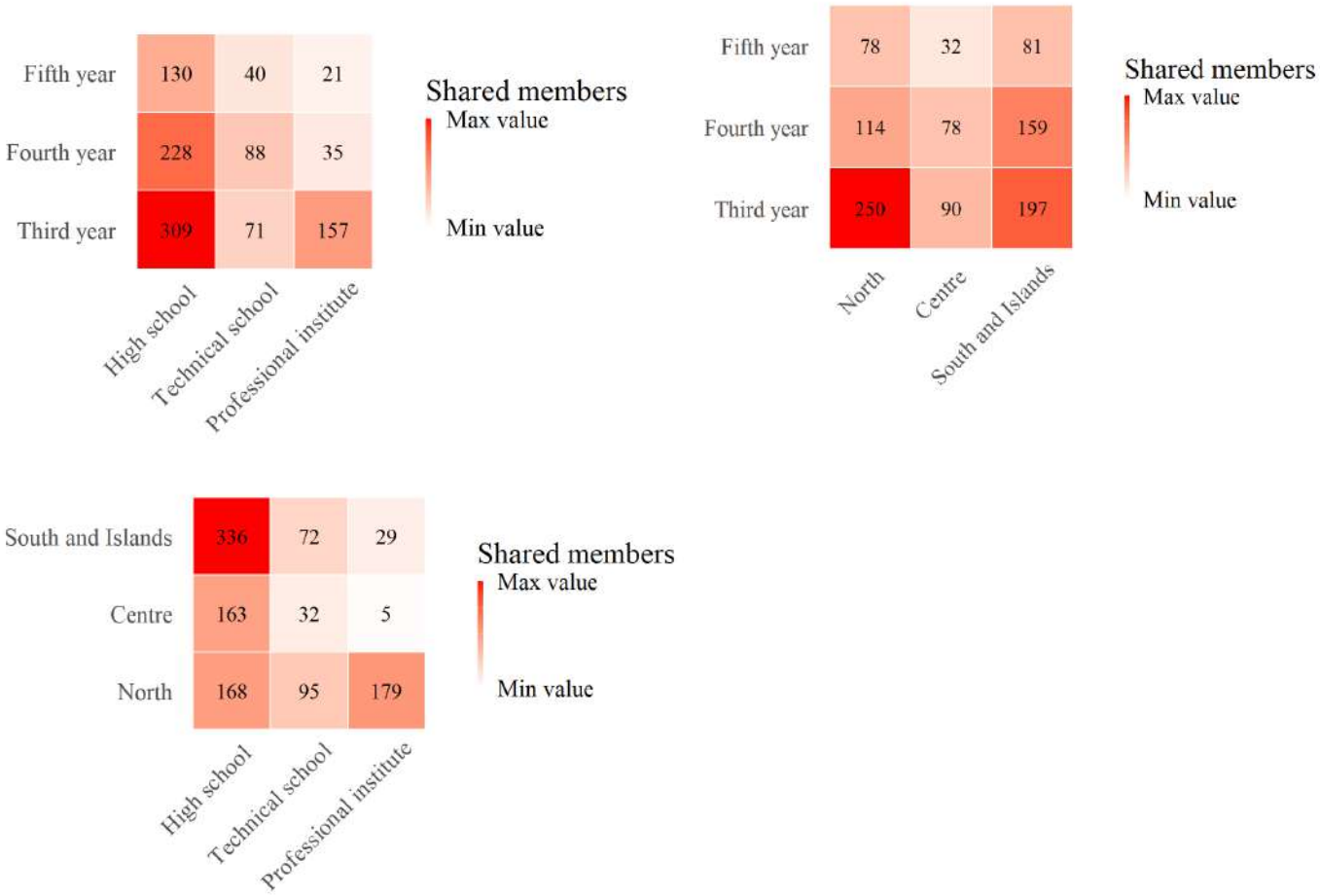

Figure 16: Heatmap representing the number of shared students between different groups in terms of macro-region, institute, and enrolment year.

93 This means that we drop out only the variable but we do not reduce the numbers of students' responses collected by the survey.

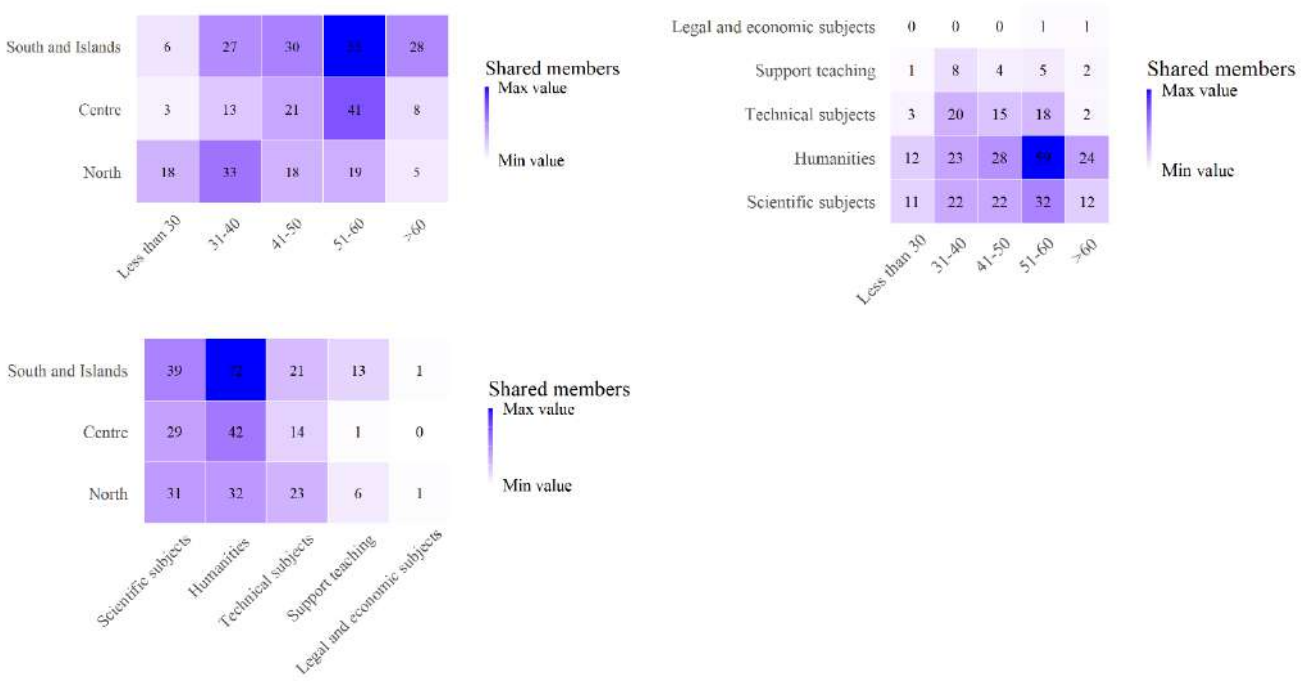

Figure 17: Heatmap representing the number of shared teachers between different groups in terms of macro-region, age, and subject.

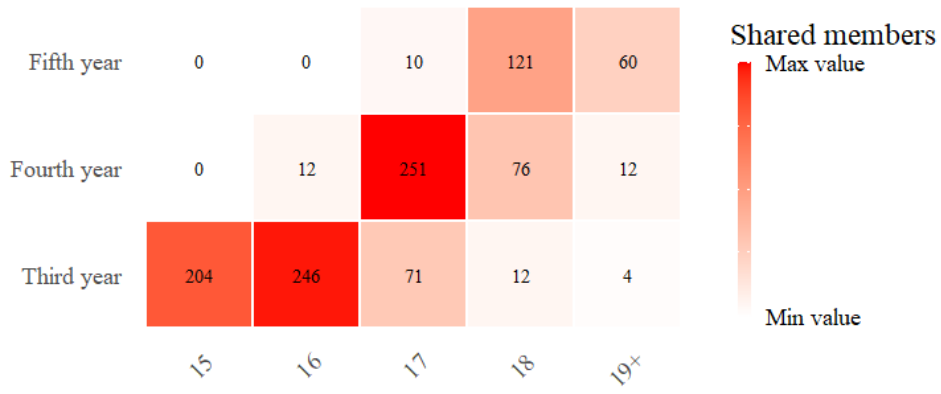

Figure 18: Heatmap representing the number of shared students between different groups in terms of age and enrolment year. Note: "shared members" represent the number of students (or, analogously, teachers) belonging to the intersection between two different groups.

Consequently, with regard to the analyses at the institute level (Figure 8 and Figure 11), a sub sample of respondents belonging to the intersection between "North" and "third year" (equal to 250 respondents) will be considered to interpret the results in a proper way.

It is important to remark that, all the rest of the analyses are performed on the whole set of respondents with no restrictions.

Regarding the teachers, no specific issues in relation to confounding effects emerge from Figure 17.

Appendix 2: The questionnaires

QUESTIONARIO DOCENTI

Gentile Professoressa, Gentile Professore,

grazie per il tempo che ci stai dedicando.

Il questionario che ti sottoponiamo costituirà la base di una ricerca, con finalità scientifica, sui fabbisogni digitali promossa nell'ambito del progetto Italian Digital Media Observatory (IDMO), da T6 Ecosystems e RAI, in collaborazione con TIM, ed è condiviso con il Ministero dell'Istruzione e del Merito.

Obiettivo del questionario è mappare esigenze e necessità dei docenti in termini di Media Literacy al fine di elaborare raccomandazioni utili ai percorsi educativi scolastici e ad un'offerta educativa di ampio respiro.

Ti chiediamo quindi di rispondere sinceramente, ricordandoti che questo non è uno strumento di valutazione, ma è volto unicamente a sviluppare percorsi di supporto alla didattica. Il questionario si compone di 17 domande. Il tempo di compilazione previsto è di circa 10 minuti.

Per ogni informazione o chiarimento puoi rivolgerti alla dott.ssa Simona De Rosa di T6 Ecosystems scrivendo al seguente indirizzo mail: (indirizzo omesso per motivi di privacy).

La partecipazione al questionario è volontaria.

Il questionario è completamente anonimo; la sua somministrazione e l'elaborazione delle risposte che fornirai sono a cura e responsabilità esclusiva di T6 Ecosystems che non potrà in alcun modo collegare le informazioni che condividi con la tua persona e trattare i dati di navigazione eventualmente raccolti.

Le risposte generate da questo questionario, in forma totalmente anonima, verranno archiviate in maniera sicura sui server di T6 Ecosystems, con sede in Via Aureliana 63, 00187 Roma, e solo per finalità di ricerca scientifica.

T6 Ecosystems per la somministrazione del questionario si avvale dei servizi di Google Forms. La navigazione e l'utilizzo del Form può comportare il trattamento di dati personali da parte di Google alle condizioni, conformi al GDPR, elencate in questa pagina https://policies.google.com/privacy .

Per qualsiasi informazione in materia di privacy puoi scrivere a dpo@t-6.it.

Anagrafica

1. Età
   <30; 31-40; 41-50; 51-60; >60

2. Sesso
   Maschio; Femmina; Altro; Preferisco non rispondere

3. Materia di insegnamento
   - Materie scientifiche
   - Materie umanistiche
   - Materie tecniche
   - Storia dell'arte

- Religione
- Altro specificare

4. Luogo in cui ha sede la scuola
   - Nord
   - Centro
   - Sud e Isole

5. Quanto ritieni che la disinformazione sia un fenomeno pericoloso in Italia?
   Assegna un valore da 1 a 5 (1-per niente, 2-poco, 3-abbastanza, 4-molto, 5-moltissimo)

6. Quanto ritieni di essere esposto/a alla disinformazione attraverso i media tradizionali (televisione, giornali, radio)?
   Assegna un valore da 1 a 5 (1-per niente, 2-poco, 3-abbastanza, 4-molto, 5-moltissimo)

7. Quanto ritieni di essere esposto/a alla disinformazione attraverso i social network?
   Assegna un valore da 1 a 5 (1-per niente, 2-poco, 3-abbastanza, 4-molto, 5-moltissimo)

8. Ritieni di saper riconoscere notizie verificate da notizie false?
   - Sì
   - No
   - Forse

9. Ritieni che mediamente i docenti sappiano distinguere notizie verificate da notizie false?
   - Sì
   - No
   - Forse

10. Quale social network utilizzi per informarti (puoi selezionare più opzioni)?
    - Nessuno
    - Facebook
    - Twitter
    - Instagram
    - TikTok
    - Telegram
    - Altro

11. Assegna un valore da 1 a 5 per ognuna di queste affermazioni, (1-rappresenta "completo disaccordo/assolutamente no", e 5- rappresenta "completo accordo/assolutamente sì)

    - Utilizzo correntemente gli strumenti digitali e le loro principali funzionalità (ad esempio computer, smartphone, tablet, lavagne interattive)
    - Scelgo lo strumento digitale migliore da utilizzare a seconda delle sue funzioni (ad esempio computer per funzioni più complesse come utilizzo programmi di scrittura e calcolo, smartphone per attività veloci come l'utilizzo App e navigazione siti web, etc).
    - Solitamente per informarmi faccio riferimento a diverse fonti, canali di informazione e strumenti digitali (ad esempio: siti internet, social network…).
    - Sono informato/a su come i contenuti sui media vengano indirizzati all'audience più appropriata (metodi di selezione del target, offerte personalizzate online attraverso i cookies, identificazione del pubblico da parte di giornali, programmi televisivi e siti internet).
    - Valuto il contenuto che vedo/ascolto sui media, in base a diversi criteri (ad esempio accuratezza delle informazioni, comparazione con altre informazioni, stile e canoni estetici).
    - Conosco l'effetto dei media sui consumatori di informazione (ad esempio l'influenza sul mio comportamento d'acquisto, la generazione di sentimenti e atteggiamenti sgraditi, come odio o dipendenza)

- Sono attento/a al modo in cui utilizzo i media e sono informato/a delle conseguenze dei miei comportamenti (ad esempio l'utilizzo del copyright, download illegali, comportamenti rischiosi sui social)
- Sono interessato alla protezione dei dati personali e della privacy
- Sono in grado di creare contenuti sui media (ad esempio scrivere un articolo o un post, creare una foto o un video, avviare un blog, una pagina o un gruppo).
- Sono in grado di comunicare e presentare contenuti attraverso i media (ad esempio strutturare e adattare una presentazione, pubblicare un contenuto su un canale specifici, come un blog o YouTube).
- Solitamente partecipo al dibattito pubblico sui media (ad esempio mostro interesse e coinvolgimento attraverso i social, cerco di contattare organizzazioni tramite email).
- Prima di ricondividere notizie, tendo a verificarle (ad esempio confrontandole con altre fonti, cercando le notizie online, chiedendo a persone di cui mi fido).

12. Chi pensi sia più adatto a parlare di disinformazione nelle scuole al fine di aiutare gli studenti a diventare più consapevoli del tema?
    Assegna un valore da 1 a 5 alle seguenti figure in cui 1-rappresenta "per niente adatta", e 5-rappresenta "assolutamente adatta"):

- docenti
- giornalisti
- fact-checkers
- influencer- youtuber
- studenti
- ricercatori
- divulgatori scientifici

13. Chi ritieni sia più la figura più adatta a costruire competenze di media literacy[1] agli studenti.
    Assegna un valore da 1 a 5 alle seguenti figure in cui 1-rappresenta "per niente adatta", e 5-rappresenta "assolutamente adatta"):
    -docenti appositamente formati
    -una figura esperta di media digitali
    -docenti
    - ricercatori
    -giornalisti

14. Quali strumenti ritieni più appropriati per formare i docenti nel campo della media literacy.
    Assegna un valore da 1 a 5 per ogni opzione (1- rappresenta "per niente appropriata", e 5 rappresenta "assolutamente appropriata")

- corsi tenuti da esperti del fact checking
- corsi online gratuiti fatti da esperti del giornalismo o centri di ricerca sul tema
- corsi a pagamento realizzati da esperti del giornalismo o centri di ricerca sul tema
- accesso ad un catalogo digitale gratuito contente materiale di approfondimento, come ricerche ed esempi di buone pratiche, da consultare per acquisire competenze specifiche da condividere con gli alunni
- KIT didattico aperto
- Altro___specificare

[1] La Commissione Europea definisce ufficialmente, già nel 2007, la Media Literacy ("alfabetizzazione mediatica" nei documenti tradotti in italiano) come la capacità di accedere ai media, di comprendere e valutare criticamente diversi aspetti dei media e dei loro contenuti e creare comunicazioni in una varietà di contesti.

15. Se ritieni che le domande 12-13-14 non siano state esaustive, condividi con noi opinioni e suggerimenti circa azioni e strumenti necessari al fine di definire e formare la figura più adatta a parlare di disinformazione nelle scuole.

16. Saresti interessato a seguire un corso per conseguire competenze in ambito di media literacy da trasmettere agli studenti?
    -Sì
    -No
    -Forse
        1. Se sì, quanto tempo saresti disposto ad investire nella tua formazione?
            - 1 mese
            - 1 semestre
            - 1 anno
            -2 anni
            - Altro
        2. Se sì, saresti disposto ad auto finanziarti per seguire un corso di formazione?
            -Sì
            -No, preferirei pagare con i fondi messi a disposizione per la formazione dei docenti (es. Carta del docente)
            -Forse
        3. Se sì, quanto saresti disposto ad investire nella tua formazione come media educator? Fino a 250; 250-500; 500-1000; >1000 (in caso di formazione di più di 12 mesi

17. Ritieni che sia utile coinvolgere in qualche modo anche le famiglie degli studenti attraverso gli organi collegiali degli istituti (es. rappresentanti dei genitori)?

- Sì
- No
- Forse

QUESTIONARIO STUDENTI

Gentile Studentessa, Gentile Studente,

grazie per il tempo che ci stai dedicando.

Il questionario che ti sottoponiamo costituirà la base di una ricerca, con finalità scientifica, sui fabbisogni digitali promossa nell'ambito del progetto Italian Digital Media Observatory (IDMO), da T6 Ecosystems e RAI, in collaborazione con TIM, ed è condiviso con il Ministero dell'Istruzione e del Merito.

Obiettivo del questionario è mappare esigenze e necessità degli studenti in termini di Media Literacy al fine di elaborare raccomandazioni utili ai percorsi educativi scolastici e ad un'offerta educativa di ampio respiro.

Ti chiediamo quindi di rispondere sinceramente, ricordandoti che questo non è uno strumento di valutazione, ma è volto unicamente a sviluppare percorsi di supporto alla didattica. Il questionario si compone di 20 domande. Il tempo di compilazione previsto è di circa 10 minuti.

Per ogni informazione o chiarimento puoi rivolgerti alla dott.ssa Simona De Rosa di T6 Ecosystems scrivendo al seguente indirizzo mail (indirizzo omesso per motivi di privacy).

La partecipazione al questionario è volontaria.

Il questionario è completamente anonimo; la sua somministrazione e l'elaborazione delle risposte che fornirai sono a cura e responsabilità esclusiva di T6 Ecosystems che non potrà in alcun modo collegare le informazioni che condividi con la tua persona e trattare i dati di navigazione eventualmente raccolti.

Le risposte generate da questo questionario, in forma totalmente anonima, verranno archiviate in maniera sicura sui server di T6 Ecosystems, con sede in Via Aureliana 63, 00187 Roma, e solo per finalità di ricerca scientifica.

T6 Ecosystems per la somministrazione del questionario si avvale dei servizi di Google Forms. La navigazione e l'utilizzo del Form può comportare il trattamento di dati personali da parte di Google alle condizioni, conformi al GDPR, elencate in questa pagina https://policies.google.com/privacy .

Per qualsiasi informazione in materia di privacy puoi scrivere a dpo@t-6.it.

Breve Glossario

- Per ***fact-checking*** si intende la verifica accurata ex-ante dei fatti e delle fonti per valutarne la fondatezza e l'autorevolezza.
- Il ***debunking*** si riferisce all'attività ex-post di demistificazione e smascheramento di notizie false circolanti con particolare facilità sui social media, ma anche sui media tradizionali.
- La Commissione Europea definisce ufficialmente, già nel 2007, la ***Media Literacy*** ("alfabetizzazione mediatica" nei documenti tradotti in italiano) come la capacità di accedere ai media, di comprendere e valutare criticamente diversi aspetti dei media e dei loro contenuti e creare comunicazioni in una varietà di contesti.

Anagrafica

1. Età
    - 15
    - 16
    - 17
    - 18
    - 19+

2. Sesso
    - Maschio
    - Femmina
    - Preferisco non rispondere

3. Indirizzo scolastico
    - Istituto tecnico
    - Istituto professionale
    - Liceo

4. Luogo in cui ha sede la scuola
    - Nord
    - Centro
    - Sud e Isole

5. Classe
    - 3° anno
    - 4° anno
    - 5° anno

6. Quanto ritieni che la disinformazione sia un fenomeno pericoloso in Italia?
   Assegna un valore da 1 a 5 (1-per niente, 2-poco, 3-abbastanza, 4-molto, 5-moltissimo)

7. Quanto ritieni di essere esposto/a alla disinformazione attraverso i media tradizionali (televisione, giornali, radio)?
   Assegna un valore da 1 a 5 (1-per niente, 2-poco, 3-abbastanza, 4-molto, 5-moltissimo)

8. Quanto ritieni di essere esposto/a alla disinformazione attraverso i social network?
   Assegna un valore da 1 a 5 (1-per niente, 2-poco, 3-abbastanza, 4-molto, 5-moltissimo)

9. Ritieni di saper distinguere notizie verificate da notizie false?
    - Sì
    - No
    - Forse

10. Ritieni che mediamente i tuoi coetanei sappiano distinguere notizie verificate da notizie false?
    - Sì
    - No
    - Forse

11. Quale social network utilizzi per informarti?
    - -Nessuno
    - -Facebook
    - -Twitter

- -Instagram
- -TikTok
- -Telegram
- -Altro

12. Assegna un valore da 1 a 5 per ognuna di queste affermazioni (1 rappresenta "per niente", e 5 rappresenta "moltissimo"). Per una corretta visualizzazione delle risposte da smartphone, si raccomanda la visione in orizzontale del contenuto.
    - Uso le tecnologie per imparare a programmare (coding).
    - Uso le tecnologie in classe durante le lezioni.
    - Uso le tecnologie per produrre e/o pubblicare contenuti per interessi personali o per le attività scolastiche.
    - Uso le tecnologie per cercare informazioni e/o contenuti per interessi personali o per le attività scolastiche.
    - Con la mia scuola partecipo a eventi nazionali e/o internazionali sulla cittadinanza digitale (ad esempio Hackathlon digitali, Europe code week, Safer Internet day, The Hour of Code, ecc.).
    - Con la mia scuola partecipo a competizioni di gaming in presenza o online (ad esempio campionati di robotica, mindcraft, ecc.).
    - L'uso delle nuove tecnologie per l'apprendimento migliora la relazione con i compagni di classe.
    - L'uso delle nuove tecnologie per l'apprendimento migliora la motivazione allo studio.
    - L'uso delle nuove tecnologie per l'apprendimento migliora la relazione con gli insegnanti.
    - L'uso delle nuove tecnologie per l'apprendimento aumenta le opportunità di apprendimento informale.
    - Per migliorare le modalità di apprendimento/studio è più efficace l'utilizzo di metodologie di lezione interattive in cui si è protagonisti attivi (ad esempio lavori di gruppo, di ricerca, ecc.).
    - Per migliorare le modalità di apprendimento/studio è più efficace utilizzare strumenti digitali per tutte le materie durante le lezioni.
    - Per migliorare le modalità di apprendimento/studio è più efficace avere spazi-laboratorio e ambienti innovativi per l'apprendimento (ad esempio Metaverso, aula immersiva, realtà aumentata).
    - Per migliorare le modalità di apprendimento/studio è più efficace partecipare a community online di apprendimento, di insegnanti e studenti, per la condivisione di contenuti e risorse.

13. Assegna un valore da 1 a 5 per ognuna di queste affermazioni, (1 rappresenta "completo disaccordo/assolutamente no", e 5 rappresenta "completo accordo/assolutamente sì)
    - Sono in grado di utilizzare gli strumenti digitali e le loro principali funzionalità (ad esempio computer, smartphone, tablet, lavagne interattive)
    - Sono in grado di scegliere al meglio quale strumento digitale utilizzare a seconda delle sue funzioni (ad esempio computer per funzioni più complesse come utilizzo programmi di scrittura e calcolo, smartphone per attività veloci come l'utilizzo App e navigazione siti web, etc).
    - Solitamente faccio riferimento a diverse fonti, canali di informazione, e strumenti digitali per informarmi (ad esempio ricercare informazioni sui siti internet, o sui social network).
    - Sono consapevole che i media possono presentare l'informazione in una maniera selettiva e so come interpretare i messaggi che leggo o ascolto (ad esempio linguaggio implicito vs linguaggio esplicito, come è strutturato un testo/articolo/film/video, ecc.)
    - Sono consapevole di come i contenuti sui media vengano indirizzati all'audience più appropriato (metodi di selezione del target, offerte personalizzate online attraverso i cookies, identificazione del pubblico da parte di giornali, programmi televisivi e siti internet).

- Sono in grado di valutare il contenuto che vedo/ascolto sui media, in base a diversi criteri (ad esempio accuratezza delle informazioni, comparazione con altre informazioni, stile e canoni estetici).
- Sono consapevole dell'effetto dei media sui consumatori di informazione (ad esempio l'influenza sul mio comportamento d'acquisto, la generazione di sentimenti e atteggiamenti sgraditi, come odio o dipendenza)
- Sono consapevole del modo in cui utilizzo i media e delle conseguenze dei miei comportamenti (ad esempio l'utilizzo del copyright, download illegali, comportamenti rischiosi sui social)
- Sono interessato alla protezione dei dati personali e della privacy
- Sono in grado di creare contenuti sui media (ad esempio scrivere un articolo o un post, creare una foto o un video, avviare un blog, una pagina o un gruppo).
- Sono in grado di comunicare e presentare contenuti attraverso i media (ad esempio strutturare ed adattare una presentazione, pubblicare un contenuto su un canale specifici, come un blog o YouTube).
- Solitamente partecipo al dibattito pubblico sui media (ad esempio mostro interesse e coinvolgimento attraverso i social, cerco di contattare organizzazioni tramite email).
- Prima di ricondividere notizie, tendo a verificarle (ad esempio confrontandole con altre fonti, cercando le notizie online, chiedendo a persone di cui mi fido).

14. Assegna un valore da 1 a 5 alle seguenti capacità e competenze utili per contrastare la diffusione delle notizie false in termini di importanza (1 rappresenta "per niente importante", e 5 rappresenta "assolutamente importante")
    - Conoscere, usare ed accedere a strumenti online di verifica delle fonti (come ad esempio tool per fact-checking e debunking[1])
    - Adottare un approccio critico e riflessivo nei confronti delle notizie che si leggono
    - Favorire nelle scuole approfondimenti per aumentare la conoscenza su alcune tematiche facilmente soggette a disinformazione (esempio: vaccini, pandemia, guerra)
    - Avere accesso ad un catalogo digitale contente materiale di approfondimento, come ricerche ed esempi di buone pratiche, da consultare per acquisire competenze specifiche
    - Tramite l'istituto scolastico avere accesso gratuito a testate giornalistiche online e cartacee
    - Avere la possibilità di ascoltare più punti di vista su uno stesso tema per discernere quale posizione è più credibile e quale meno.

15. Assegna un valore da 1 a 5 alle seguenti figure in base a chi pensi sia più o meno adatta a parlare di disinformazione nelle scuole e aiutare gli studenti a diventare più consapevoli del problema (1 rappresenta "per niente adatta", e 5 rappresenta "assolutamente adatta")
    - Docenti
    - Giornalisti
    - Fact-checkers
    - Influencer- youtuber
    - Studenti
    - Esperti tematici
    - Ricercatori

16. Assegna un valore da 1 a 5 alle seguenti categorie in base alla fiducia che riponi in ciascuna di loro come fonte di informazione (1 rappresenta "nessuna fiducia", e 5 rappresenta "completa fiducia").
    - Famiglia

[1] Per fact-checking si intende la verifica accurata ex-ante dei fatti e delle fonti per valutarne la fondatezza e l'autorevolezza; il debunking invece, si riferisce all'attività ex-post di demistificazione e smascheramento di notizie false circolanti con particolare facilità sui social media, ma anche sui media tradizionali.

- Amici e Compagni di scuola
- Insegnanti
- Media tradizionali
- Social network

17. Assegna un valore da 1 a 5 ai seguenti canali di informazione in base alla frequenza di utilizzo che ne fai come fonte di informazione (1 rappresenta "mai", e 5 rappresenta "sempre").
    - Programmi televisivi
    - Pagine di informazione sui social
    - Giornali cartacei o online
    - Podcast
    - Amici e parenti

18. Quali strumenti ritieni più appropriati per ricevere consigli pratici su come verificare l'informazione. Assegna un valore da 1 a 5 per ogni opzione (1- rappresenta "per niente appropriata", e 5 rappresenta "assolutamente appropriata")
    - Programmi sulla televisione pubblica
    - Reel e brevi video sui social network
    - Kit di approfondimento distribuiti dalle scuole
    - Brevi corsi realizzati da esperti del fact checking e del giornalismo
    - Corsi online gratuiti e aperti a tutti (MOOC)
    - Catalogo digitale contente materiale di approfondimento, come ricerche ed esempi di buone pratiche, da consultare liberamente quando serve

19. Quale ritieni essere la figura più adatta a costruire competenze di media literacy[2] per gli studenti.
    - Docenti appositamente formati
    - Una figura esperta di media digitali
    - I miei insegnanti
    - Giornalisti
    - Altro: specificare

20. Sei interessato/a all'approfondimento e all'acquisizione di competenze di media literacy?
    - Sì
    - No
    - Forse

[2] La Commissione Europea definisce ufficialmente, già nel 2007, la Media Literacy ("alfabetizzazione mediatica" nei documenti tradotti in italiano) come la capacità. di accedere ai media, di comprendere e valutare criticamente diversi aspetti dei media e dei loro contenuti e creare comunicazioni in una varietà di contesti.


Italian Digital
Media Observatory