Exploring Current Challenges and Opportunities in Media Literacy Skills for Youth: Stakeholders' Perspectives

Ceci Diehl[1], Oksana Tymoshchuk[1], Ruth S. Contreras-Espinosa[2], Alessandra Carenzio[3], Maria João Antunes[1], Jose Luis Eguia-Gomez[2] and Nelson Zagalo[1]

[1]DigiMedia – Digital Media and Interaction Research Centre, University of Aveiro, Aveiro, Portugal
[2]University of Vic – Central University of Catalonia, Vic, Spain
[3]Catholic University of Sacred Heart, Milan, Italy

cecidiehl@ua.pt
oksana@ua.pt
ruth.contreras@uvic.cat
alessandra.carenzio@unicatt.it
mariajoao@ua.pt
jose.luis.eguia@upc.edu
nzagalo@ua.pt

Abstract: The widespread dissemination of contradictory information through various media platforms can increase anxiety and confusion among younger generations. This highlights the need to promote Media Literacy (ML) skills, enabling them to evaluate online information's validity critically. Video game-based learning can be valuable in this context, fostering active learning and critical thinking. Therefore, developing and sharing innovative resources like interactive content and video games is crucial to enhancing young people's ML skills and resilience to disinformation. The YO-MEDIA project, involving three universities in Italy, Portugal, and Spain and a journalist association, aims to develop ML in young people during times of crisis (e.g., pandemics and wars) through game-based learning strategies and professional training. The project carried out 29 semi-structured interviews in the partner countries with various stakeholders to understand perspectives on media design practices and ML formulation for young people in crises. These interviews aimed to collect education and media professionals' insights on promoting ML and critical thinking among youth during crises. It also seeks to gather best practices and understand these professionals' challenges when fostering ML among youth. This study's findings suggest that the interviewees deem ML vital for distinguishing accurate information from misinformation during crises, especially relevant for young individuals. Essential skills for these young people include critical thinking, filtering information, and recognizing online threats. Effective strategies involve operating within digital environments frequented by young people, encouraging critical thinking, and nurturing collaboration. Professionals face challenges such as a lack of training, engaging young people's attention, and keeping pace with digital environments. The interviewees also emphasized the importance of ML training for informal educators and media professionals. They recommended Massive Open Online Courses (MOOCs) for their flexibility and accessibility. According to the interviewees, an ML game should involve research, interpretation, and decision-making processes and be accessible to young people with disabilities. They identified several ML projects and resources, including multimedia labs, youth parliaments, and critical thinking tools. This study contributes to developing games that promote critical thinking and ML in young people. It also aids in establishing ongoing professional training in ML for informal educators, teachers, media professionals, and other stakeholders.

Keywords: Media Literacy; Critical Thinking; Educators and Media Professionals; Game-based Learning; Professional Training.

1. Introduction

In the current digital era, the volume of online information available is growing unprecedentedly, as is the ease of accessing this information via the Internet (Majerczak & Strzelecki, 2022). The inability to distinguish between true and false information available on various media platforms can increase anxiety and confusion, especially among younger generations. This aspect demonstrates the urgent need to promote ML (Johnson et al., 2020; Pennycook & Rand, 2020), which is related to the ability to understand critically, question the reality and veracity of what we see, hear, read, and consume through the media (Buckingham, 2015).

ML has increased importance during crises such as pandemics and wars, as it is in these moments that the sharing of information and disinformation is particularly high (Johnson et al., 2020; Pennycook & Rand, 2020). Young people have daily access to a vast amount of information and digital tools, but there is a lack of knowledge in managing and correctly using this data (Buckingham, 2015). Therefore, it is essential to prepare these individuals for moments of crisis from an early age through the development of skills and competencies in ML, so that they have critical thinking, become consumers and creators of media, and know how to critically evaluate the validity of online information (Buckingham, 2015; Jones-Jang et al., 2021; Kellner & Share, 2019).

Several European Union countries present basic notions and limited content about media and journalism in their current educational models (Petranová et al., 2017; Qerimi et al., 2023), often preferring practical activities instead of active learning about the media. The lack of opportunities for critical reflection and skills development makes it impossible for young people to discern the veracity of information and dubious sources. For this reason, it is necessary to rethink strategies for promoting ML to educate young people with the skills to consume and produce media correctly. Video game-based learning can be valuable in this context as numerous studies highlight the practical implications of video games in fostering "active learning" (Saleem et al., 2022; Zeng et al., 2020). In games, it is possible to incorporate specific ML content (e.g., identification of false information, digital security and privacy issues, and media skills, among others) (Contreras-Espinosa & Eguia-Gomez, 2023), which provides players with new experiences that equip them for real-life problem-solving, particularly in crises (Moro et al., 2022). Moreover, video games can stimulate "critical learning" (Bunt & Grosser, 2020; Mao et al., 2022; Scheibenzuber & Nistor, 2019) by offering players a meta-awareness of these domains. This understanding helps them comprehend how media can influence them and how their environment affects their perception of a problem (Gee, 2003).

In this sense, the ongoing YO-MEDIA project focuses on leveraging game-based learning strategies and professional training to develop ML skills in young people during crises. It involves a mixed-method approach to assess the effectiveness of games in raising awareness about misinformation through interactive learning experiences. The project, which involves three universities in Italy, Portugal, and Spain along with a journalists' association, aims to achieve two main objectives: increasing awareness and knowledge among young people regarding the reliability of media information and enhancing the professional skills of informal educators/stakeholders, teachers, and media professionals in promoting ML during crises. To achieve these goals, the project involves various research activities such as literature reviews, stakeholder interviews, co-creation of hybrid games with young participants aged 16 to 18, and developing a MOOC to educate about ML.

This paper presents the results of 29 semi-structured interviews conducted in partner countries with teachers, journalists, and other stakeholders to understand the diverse perspectives on media design practices and ML formulation for young people in crisis.

2. Methods

In the initial phase of the study, the YO-MEDIA project team conducted semi-structured interviews in Italy, Portugal, and Spain with 29 individuals (10 interviews in Italy, 9 in Portugal, and 10 in Spain), including teachers, journalists, informal educators, and other stakeholders with experience in media studies, games, and crisis management. These interviews aimed to bring together diverse perspectives from education and media professionals on promoting ML and critical thinking among young people during crises. The project team chose interviews as a means of data collection, as the purpose of the study was to collect in-depth qualitative data. Although the focus group was considered as an option, this tool was disregarded due to the impossibility of bringing together the interviewees as they lived in different cities in each country and did not have available agendas.

Interviewees were selected based on experience working with young people and/or participation in ML-related projects to include individuals with diverse professional experiences to gather different perspectives on young people's ML. In this context, participants consisted mainly of (i) informal educators/stakeholders who should have professional experience working with young people in different contexts (e.g., libraries and youth associations involved in community projects or municipal departments promoting projects in the area of ML); (ii) journalists, from different news organizations and areas (e.g., video games, sports, or digital issues) and who work on research projects in the area of ML; and (iii) teachers, from public and privately-funded schools, who were involved in projects to promote ML in secondary education and universities and who have experience in research projects.

The interviewees provided informed consent, acknowledging the objectives, process, risks, and benefits of the research, and made a free and voluntary decision about their participation. The 29 in-depth interviews were conducted between April and June 2023 using the Zoom® video-conferencing application. The project team from each partner country interviewed participants in the country's official language (Italian, Portuguese and Spanish) and the interviews lasted approximately 100 minutes, were video recorded and transcribed verbatim. To facilitate the interviews, the Portuguese project team developed an interview guide that was followed in the three countries (Figure 1):

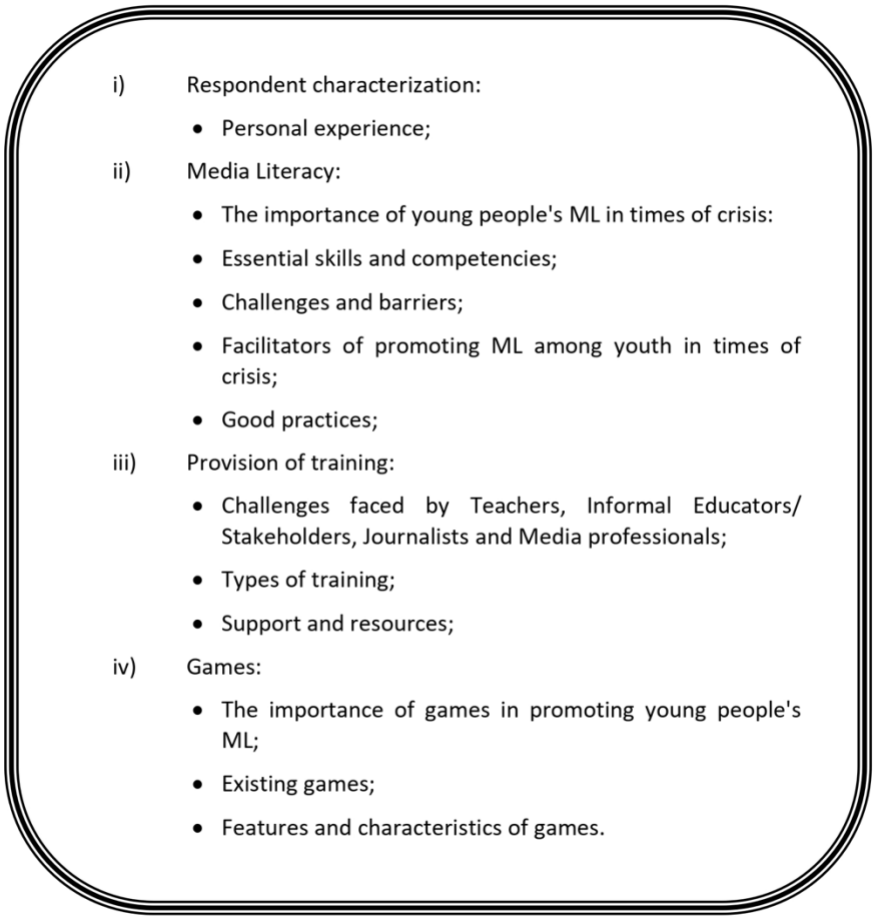

Figure 1: Interview guide.

Data analysis from each country was based on the critical thematic approach to identifying and examining patterns (Braun & Clarke, 2006). The analysis involved coding the text and identifying patterns, and repeated discourses. From the interview transcripts, the emerging patterns of the data were defined, namely: (i) ML in today's digital age, (ii) important skills and competencies, (iii) strategies and approaches to promote ML, (iv) providing teacher/journalist training, (v) games: features, and characteristics. The unique transcription corresponding to each pattern was collected and coding tables were then produced with the most interesting and pertinent quotes.

2.1 Participants

In total, 29 professionals were interviewed, being 14 women and 15 men with an average age of 46.4 (SD 5.2) years. The participants in the interviews had professional experience as informal educators/stakeholders (IESn=8, 27.5%), journalists (Jn=8, 27.5%), and teachers (Tn=13, 45%). Each interviewee presents a varied experience in ML. Some paved the way for digital media as a topic for young people in their community or in school training, finding students to talk and work on ML (e.g., teachers and informal educators in the three countries); others work in associations dedicated to promoting the well-being of young people through the media (e.g., Steadycam, Italy) or in projects focused on preventing disinformation (e.g., IBERIFIER project, Portugal and Forum against Disinformation Campaigns, Spain). Some have developed games to address hate speech and violence on social media (e.g., Gariwo, Italy). More detailed information about the participants (age, gender, role and experience with ML) from each country is presented in Annex 1.

3. Findings

Analysis of interview data conducted by researchers from each country identified the following common themes: (i) ML in today's digital age, (ii) important skills and competencies, (iii) strategies and approaches to promote ML, (iv) providing teacher/journalist training, (v) games: features, and characteristics. The results for each of the themes are presented in the following sections.

3.1 ML in Today's Digital Age

For the interviewed, ML in the current era is essential in times of crisis due to the dangers young people encounter in the media. As examples, professionals highlighted: the difficulty in distinguishing reliable sources of information and true or false information, the speed with which things are processed, excessive time that young people spend online, misinformation, multiple media stimuli, AI, information bubbles and social media as sources of unverified information, populism, radicalism and hate speech, among others. In this context, interviewees justified the importance of ML for young people for the following reasons (Table 1):

Table 1: Categories of the theme "ML in today's digital age", number of individuals who commented on each category, and citations supporting the categories.

Categories	Individuals, n	Citations (examples)
Socialization	• Italy:2 • Portugal:5 • Spain:6	"*Digital tools can be strong tools to support bonding and relationship, which in a crisis situation is even more necessary to maintain*" (Italy, IES2).
Frantic and disintermediated access to information in times of crises	• Italy:3 • Portugal:6 • Spain:6	"*We are talking about a high-speed consumption of information; there are many fragments of information on multiple subjects*" (Portugal, T4).
The different means of disseminating information, due to the increased use of new media (e.g., social media) compared to traditional media (e.g., television, radio, or newspapers)	• Italy:4 • Portugal:6 • Spain:7	"*We are living in a time of over-information that has nothing to do with traditional media because information reaches us through social media and many other channels that cannot be considered informative media. That is, a hyper-informed, hyper-communicated society, but poorly managed*" (Spain, J1).
New fears that arise from moments of crisis and can generate serious consequences for individuals (e.g., divisions in society and impacts on mental health)	• Italy:2 • Portugal:5 • Spain:6	"*It is important that they also create mechanisms and manage to defend themselves from fake news, which is very stressful, and even true news can also be very stressful. They must create those mechanisms, manage, and understand when it's time to switch off so it doesn't affect their mental health*" (Portugal, J2).

3.2 Important Skills and Competencies

For the informal educators interviewed, young people are often competent consumers, but they lack critical skills in media consumption and production. Respondents highlighted the following skills and competencies that young people need to develop (Table 2):

Table 2: Categories of the theme "Important skills and competencies".

Categories	Individuals, n	Citations (examples)
Critical thinking about media messages and assessment of their credibility and bias	• Italy:4 • Portugal:5 • Spain:8	"*I believe we should aspire to become a critical society, an educated and informed society. In this sense, ML is essential*" (Spain, J1).
Know how to access, analyse, and filter information and information sources effectively and ethically	• Italy:3 • Portugal:6 • Spain:9	"*Know how to navigate, know what they are looking for, know which sources are credible*" (Portugal, T1).
Ability to assimilate and understand information, as well as identify the veracity of facts	• Italy:3 • Portugal:6 • Spain:9	"*Even if students have a minimum ability to read the text, the evaluation is conditioned by incorrect prior information or what they heard...so I would work both on accessing and evaluating information*" (Italy, T3).
Understand artificial intelligence, with a combination of ML education, critical thinking skills, guidance from informal educators, and responsible use of technology	• Italy:2 • Portugal:4 • Spain:6	"*Figure out what's on offer, what's on your mind. What do they propose according to the algorithm and what do students really want to look for? What are the things that really interest you?*" (Italy, T1).
Respect the diversity of opinions, cultures, and perspectives, in addition to recognizing and combating stereotypes and prejudices in media messages	• Italy:1 • Portugal:2 • Spain:7	"*The issue of gender, inclusive language... we have worked on that. For instance, statements such as: 'A Moroccan man robbed a store'. They could have mentioned instead that 'it was a young person*" (Spain, IES1).

Categories	Individuals, n	Citations (examples)
Debating ability, so that young people can participate and give their opinion in conversations and debates	• Italy:1 • Portugal:2 • Spain:8	"*What should be strengthened in children and young people is their argumentative abilities and their critical thinking. Only with a good ability to talk to each other can they discuss social issues and develop the connection between them*" (Portugal, IES1).

3.3 Strategies and Approaches to Promote ML

Regarding effective strategies or approaches to promoting ML among young people, interviewees highlighted that it is very important to reason more *on how*, rather than *on what* to say to young people. And because ML is strongly related to critical thinking, one of the main practices suggested by interviewees is the promotion of activities that encourage thinking and questioning and give students a voice. Teachers considered that these practices should start early in student learning, and, for this, it is necessary to rethink the educational model, "*and, perhaps, to be closer to this reality of young people, to adapt to the platforms, the languages, the contents, and the contexts where they are*" (Portugal, T4).

Another fundamental point identified in the interviews is the effective collaboration between teachers, informal educators, journalists, and parents to share knowledge, training, and good practices to promote ML (e.g., "*Observe good practices with and on the media, bringing a different form of design and of mental and cultural approach*" Italy, T3). Respondents also consider it essential to work in gamification contexts, using digital games to promote ML, as games are a media extensively used by young people (e.g., "*students talk about things they know, where they feel recognized, so we talk about videogames as a cultural object. At the same time, we acquire skills in developing critical thinking*" Italy, IES4).

Some interviewees also suggested other good practices for promoting ML, such as: sharing concerns about crises with students, empowering informed decision-making, promoting changes in habits of sharing information online, exchanging intergenerational experiences between adults and young people, supporting empathy and identification in the information exchanged.

Furthermore, participants highlighted successful projects in their countries that aim to promote ML, combat disinformation, and promote critical thinking and transparency through fact-checking and data journalism: Open the Box (Italy), Fact-checking Spring School (Portugal), Fact-checking maldita.es (Spain), among others.

3.4 Providing Teacher/Journalist Training

In the interviews, participants pointed out the need for specific actions and courses that provide them with mastery of ML and the necessary tools to teach the subject to young people. Despite the lack of these practices, professionals face challenges in the process due to great resistance on the part of teachers in adopting media or video games as teaching tools in the classroom. Respondents consider it necessary for teachers and informal educators to use the platforms and content that students are consuming today, in order to create a connection between real life and school, establishing a balance between learning and the media (e.g., "*ML also means the ability for teachers to decode a TV series, to watch it, as students watch it and talk about it at school*" Italy, IES3).

Resistance on the part of education professionals to adopting new media may also be linked to the lack of training in ML and the difficulty in keeping up with constant updates to digital environments. According to one of the interviewees, in certain countries, such as Portugal, the teaching profession is ageing, with the average age of teachers being between 50 and 55 years old (DGEEC, 2023). These individuals have difficulties in following the development of digital technologies, as "*we are teachers who, when we took the course, the Internet was not a big reality in Portugal. We were doing training, etc. The most interested ones did much training. Those who are not so interested still have many difficulties in dealing with digital media. They don't understand social networks very well; for example, many of my colleagues don't understand*" (Portugal, T2). In Spain, the same scenario is also pointed out by one of the journalists, who always must be up to date with changes and the emergence of new digital technologies, as these are one of the main tools of his work: "*For example, when I started teaching in 2005... we learned to use email, later Google, and then came social media. From 2005, everything started to change with Facebook, Twitter, search engines, smartphones... and today, with artificial intelligence*" (Spain, J2).

Furthermore, another critical challenge highlighted by informal educators and teachers concerns the difficulty in capturing and maintaining young people's attention and interest during the learning process, especially in

times of crisis, when students' effort generally decreases (e.g., "*During the pandemic, the level went down, and we are seeing senior students with a shallow level that are used to giving the minimum; in that sense, it would be important to rescue the notion of effort*" Spain, T4).

Regarding the format of ML training, interviewees prefer that they are (i) in a MOOC format, because they allow greater flexibility in learning and do not require traveling to the training location; and (ii) that continuity programs are made available, as this allows them to deepen their knowledge.

3.5 Games: Features, and Characteristics

Gamification was one of the interviewees' suggestions to promote ML among young people. Comments pointed out that games can be valuable in the sense that they allow individuals to explore, understand and interact with media content actively and critically, in addition to challenging young people to make decisions, solve problems and critically evaluate information, thus promoting the development of critical thinking (e.g., "*The question of playing presupposes the interacting, the relating, the stimulating, the challenging, and the competing, be it with another player, be it against the machine*", Portugal T4).

Respondents consider that games, especially video games, work well among young people due to aspects such as: (i) the narrative dimension, which allows young people to explore and experience different stories, characters, and virtual worlds, which supports learning, motivation, student engagement and deeper understanding of media elements (e.g., "*and the game is an act, and it is an enjoyable media stimulus. If it has an environment, a narrative that engages me, I hardly leave that environment. So maybe that is a good space to work with young people and complicated topics, as such a crisis*" Portugal, T4); (ii) interaction and engagement, which can help young people develop communication, teamwork, and conflict resolution skills (e.g., "*their most exciting dimension is when it is a collective game, not an individual. So, I think that the game, if we want to follow this line of promoting ML, should promote dialogue and interpersonal relationships*" Portugal, IES1); and (iii) the possibility to start over from where you failed and reason about it (e.g., "*if you fail, you can start over or maybe from a certain point, you encourage a reflection on the cause and the effect of actions*" Italy, T2).

In interviews, participants consider that despite the valuable benefits that games can provide to young people, there is still a lack of use of gamification in classrooms. This deprivation of the use of games is mainly due to a lack of time on the part of teachers and informal educators, especially at higher educational levels, before accessing university, which again reinforces the need to rethink the educational model: "*I don't use board games during this History course because, as compared to last year, we have one hour less per week. Instead of three, now we have two, and I need to provide the same content as before. I don't think games are a waste of time, because they aren't, but if I apply games in the methodology, we just won't make it.*" (Spain, T5). A solution presented by most interviewees would be to implement games in project disciplines, which are very present in classrooms nowadays: "*We would include games within a project, as there is a tendency now to include project-oriented learning methodologies. For instance, in secondary school, there is a subject called Culture and Values, which is a complement to the mentoring hours*" (Spain, T3).

Regarding the suggestion of functionalities and characteristics for the game to be created, the interviewees suggested (Table 3):

Table 3: Categories of the theme "Games: Features, and Characteristics".

Categories	Individuals, n	Citations (examples)
Have a connection with real problems/stories to reinforce the emotional aspect of the game and enable young people to identify with the characters	• Italy:2 • Portugal:5 • Spain:7	"*It is necessary to use examples of concrete situations... to encourage thinking and discerning in a critical manner which options would they choose, and that consequences follow upon the decision taken*" (Spain, T5).
Possibility to evolve in the game, go through different levels of difficulty and challenges	• Italy:2 • Portugal:4 • Spain:8	"*I think the Game has to have this idea of the challenge, the difficulty and the conquest*" (Portugal, T3).
Purchasing rewards to keep young people engaged and keep them playing to win more prizes	• Italy:1 • Portugal:3 • Spain:6	"*A game where you put the acquisition of anything, be it points, gadget in the game, something that will allow you to evolve or your character or acquire another kind of characters or other kinds of pluses that they can use in terms of the game*" (Portugal, IES3).

Categories	Individuals, n	Citations (examples)
Involve research, interpretation and decision making, making young people question information and develop critical thinking	• Italy:2 • Portugal:5 • Spain:6	"*A research game that implied reading and interpretation to help decision making. In a logic of a reaction that is not a need for a quick decision, that implies "pondering, implies a collection of information or thoughtful interpretation and then decision making*" (Portugal, T4).
Promote healthy competition among young people through games that use an ethical component	• Italy:3 • Portugal:2 • Spain:7	"*I believe they should have the skills, the tools, the strength, and the self-esteem to thrive in a competitive world*" (Spain, J1).
Involve experts from different areas, teachers, and students in game development, because the exchange of ideas and experiences will contribute to the development of a game with greater usability and accessibility to the most varied types of users	• Italy:2 • Portugal:2 • Spain:7	"*I would take developers with me to work with my students to have a different look. So, developers don't work for us, but with us*" (Italy, T3).

4. Discussion and Conclusions

The 29 interviews performed with informal educators, teachers, and journalists in the three countries participating in the YO-MEDIA project (Italy, Portugal, and Spain) help to understand the different perspectives of these professionals on promoting ML and critical thinking among young people during crises. The points raised by professionals reinforce the indispensable role of ML in discerning true information during disinformation exacerbated in times of crisis. The need to develop skills on how to consume and produce media is especially pertinent for young people.

As essential skills for young people, improving critical thinking skills, adequate information filtering, and recognizing online threats are highlighted. These skills must be cultivated in individuals from an early age and as pointed out by interviewees, for this to happen it is necessary to rethink education models, which currently teach basic notions about the media and journalism (Petranová et al., 2017; Qerimi et al., 2023). If the academic curricula do not have courses focused on critical reflection and analysis of misinformation, young people will have difficulty achieving a high ML level. To try to reverse this situation in the educational scenario, teachers and informal educators suggest as effective strategies for promoting ML, immersion in digital environments frequented by young people, encouraging critical thinking and cultivating collaborative efforts between education and media professionals.

However, in addition to the challenge of training young people in ML, professionals also state that they themselves encounter barriers to learning and teaching about ML. The lack of training opportunities, the difficulty in capturing and maintaining the attention of young people and the difficulty in keeping up with rapidly evolving digital environments were some of the obstacles highlighted by those interviewed. For professionals, it is necessary to integrate ML training into the curriculum of informal educators and media professionals, suggesting MOOCs as a viable solution due to their flexibility and accessibility.

Furthermore, interviewees advocate the development of ML-based games that involve research, interpretation, and decision-making processes, while ensuring accessibility for young people with disabilities. The use of games in learning ML can provide positive results for young people, allowing them to develop critical thinking skills, decision-making and strategies to combat misinformation (Contreras-Espinosa & Eguia-Gomez, 2023; Glas et al., 2023).

The results of this study contribute to promoting the creation of educational games that aim to improve critical thinking and ML skills among young people, while also facilitating ongoing professional development and ML training initiatives for informal educators, teachers, media professionals, and other stakeholders.

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