Developing Resilience to Disinformation through Media Literacy Programs

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Disinformation and false information, often referred to as fake news do not constitute a novel phenomenon. Media literacy initiatives to enable the general public to critically evaluate media messages formally date back to UNESCO's declaration of 1982, known as the Grünwald Declaration on Media Education. More recently (2020), UNESCO reiterated its position, drawing attention that in the age of 'post-truth', 'fake news' and 'alternative facts' disinformation and misinformation can and should be countered through media and information literacy (MIL) programs.

Keywords: disinformation ; fake news ; media and information literacy (MIL) ; game-based learning ; resilience ; inoculation theory ; communication

1. Background and Importance

A variety of international organizations, universities and media outlets called for the necessity to raise people's capacity to access, understand and critically evaluate media via reducing the deficit in media literacy across the world, either in formal educational programs or in an informal context. The diversification of media, the advent of digital extensions of communication, the multiplication of platforms that carry information led to the necessity of developing new tools to foster independent critical thinking and build resilience against false information, as underlined by UNESCO in the 2020 Seoul Declaration on Media and Information Literacy for Everyone and by Everyone. It bluntly states that "media and information literacy (MIL) is a core competency for addressing the disinfodemic" ^[1]. While the term "media literacy" means different things for different countries and stakeholders, as recognized by the specially created expert group of the European Commission ^[2], it is an evolving concept that aims to develop the critical thinking of the users of media, be it traditional, digital, social—or whatever new form it may take in the future. To fight the spread of fake news, a variety of strategies have been developed, from fact-checking procedures and networks to software apps or moderation tools ^[3]. Rand Corporation, for instance, provides a list of 82 certified tools, useful to detect and fight disinformation online ^[4].

In the context of the health crisis of 2020-2021, the interest towards combating disinformation and fake news grew exponentially, bringing new topics and tools for deception detection to the fore. The World Health Organization warned that the infodemic, understood as a significant increase in the volume of information associated with a specific topic and whose growth can occur exponentially in a brief period of time due to a specific incident, spreads farther and faster just like the health-affecting pandemic [5]. In a country like Romania, where the interest towards the MIL topic is uneven, with mild initiatives to educate the public, critically analyze media messages and detect fake news, in 2020 the Civic Labs program from the Code for Romania in partnership with the Authority for Romania's digitalization created browser extensions for Chrome and Firefox, to help users fight pandemic-related disinformation [6]. However, resilience against disinformation is not systematically dealt with on a large scale. And while the pandemic dominated media content throughout 2020 and 2021 ^[7], other socially relevant events happened and needed proper interpretation, such as electoral processes or the flow of refugees in Europe. Against this background, the research team worked on building the capacity of future professional communicators to identify and dismantle fake news related to the refugee crisis, independent of the pandemic topic, in a university city of Romania. The task was complicated by the fact that the research was conducted during emergency remote learning in higher education imposed by pandemic-related measures, a period marked by students' fatigue with Zoom-facilitated classes, anxiety, work overload and loss of the feeling of the community of learning ^[8]. Thus, the educators aiming to develop media literacy skills in students, appealed to innovative pedagogical strategies in the form of game-based learning to assist future professional communicators-students in communication sciencesstrengthen resilience against disinformation, develop deception detection skills and enrich their learning experiences with role-playing in a serious game environment.

2. Research on Fake News and Media Literacy

Fake news is not a new phenomenon, but it has gained interest in the last several years, due to the magnitude, the multimodality and the multiplicity of its manifestations and consequences in the digital post-truth era. Because the term fake news itself is problematic and open to abuse, other different concepts have been proposed for describing the phenomenon: disinformation, information manipulation, information disorder, information influence, etc. There is a distinction concerning fake news types ^[9] among false information without the intention of causing harm (mis-information), false information with the intention of causing harm (dis-information) and real information with the intention of causing harm (mal-information). Fake news can be considered a form of disinformation, comprising, cumulatively false or misleading information and the intention of causing harm to individuals, social groups, organizations or countries.

Fake news is created and disseminated with increasing speed, expertise and effectiveness in the digital context ^[10], thus being more difficult to detect and resist. The fake news exploits the gullibility of media users, who frequently are not only biased, but also irrational and lazy. Framing (selecting some aspects of a perceived reality and making them more salient) is a particularly effective discursive device of fake news, because it is hardly discernible. It is difficult to differentiate on digital and social media among true, misleading, or false content. One important way of addressing this problem is media literacy, which equips individuals with powerful tools and strategies of resilience and resistance to fake news ^[11]. Media literacy creates and develops an adaptable and critical toolkit for detection of the fake news and protection from the harm they may cause ^[12].

Media literacy comprises a set of critical skills and competencies, which enable users to find, analyze, evaluate and interpret various forms of media messages ^[13]. The main media literacy skills are: analysis, evaluation, grouping, induction, deduction, synthesis and abstracting ^[14]. Media literacy stimulates the understanding of the methods of message construction and framing, of the different types of media genres, of the various ways of experiencing the messages, of the embedded values and perspectives in media messages, and of the purposes of media producers, whether profit, power or some other aim. Media literacies (digital, visual, textual, aural) promote critical thinking applied to messages and awareness of the media processes and impacts. One important component of media literacy is news literacy ^[15]. News literacy is the ability to analyze and critically assess news, from the sources of information to the final form with which news stories are presented. As stated by numerous researchers of the issue, the recognition and verification of "fake news" and potentially manipulative content in the media (and social networks) represent significant competences in the contemporary digital environment^[1]. Such a competence enables users to evaluate the credibility of information and to examine the structure of that information. Young people's lack of interest in news and their disconnection from politics increases their vulnerability to fake news. As the fake news repertoires are ever-increasing, so are the counteracting techniques ^[15].

Media literacy education (MLE) can be construed as a sustainable remedy to the contemporary disruptive media content, which provides users of all ages (especially college students) with lifelong critical tools for analyzing and assessing information and images ^[16]. Sustainability is a multidimensional concept, which can be understood or framed differently across the various higher education disciplines. Sustainable education provides enduring solutions by academic participation concerning societal and environmental issues. Sustainable teaching guides individuals, through aligned efforts and connected interventions, to be able to acquire new skills and adapt continuously during their lives ^[17]. In the media studies field, this diversity of focus involving sustainable education upholds complex cultural practices and forms of knowledge ^[18]. The principles of sustainability, as empowerment action tools, have permeated the media education on different levels, but the research in this area is rather scarce. Sustainable education in a mediated world is a crucial aspect in the development of savvy, informed and engaged citizens as consumers of multimodal media messages ^[19]. The habit of critical interrogation of media messages can be formed via sustainable education methods. Media coverage and filtering of different issues is a major factor in framing and responding to them as risks, threats or crises ^[20]. Sustainable media education expands the ability of individuals to interpret and construct dynamic representations of the real-world processes and to access and evaluate information across multiple media platforms and engage actively and critically in a turbulent media environment ^[21].

3. Game-Based Learning

Game-based learning gained momentum due to Johan Huizinga's "Homo Ludens" ^[22], which brought to public attention the fact that adults picking up narrations, game metaphors and game elements succeed to better understand culture and society, understand complex issues and deal with uncertainty or conflict. Another line goes outside gaming and playfulness, into Erving Goffman's theory that each social interaction remains, in and of itself, a type of performance, each person enacting a prescribed role on the stage of social expectation, shifting one's sense of identity as demanded by

circumstance [23]. The assumed role brings changes in posture, lexical choices, attitude, etc. Most of the time, individuals shift from one social role to another without a conscious effort, mimicking consecrated types of behavior for a given situation. Role-playing is, on the other hand, not only a learned activity, but a path towards personal and/or professional success. Role-playing games are viewed as forms of cultural rituals, appealing either to fantasy, or to non-fictional strategies, depending on the stake and purpose of the game. In the effort to innovate educational practice and re-ignite people's appetite for learning, gamification was proposed, in the last decade, as a process capable of motivating individuals to stay committed to lifelong learning, although the outcomes of game-based learning are not always enduring [24][25]. Nevertheless, game-based learning tools and gamification are perceived as effective ways of transferring knowledge on complex topics not only to students, but to broad audiences and such tools are proposed in a variety of packages and durations. Literature on the topic [26] mentions frameworks on gameful design such as RECIPE (Reflection, Exposition, Choice, Information, Play, Engagement) and playful design such as TANC (Theme, Activities, Narrative, Components), alongside emphasizing the meaningfulness of playing and memorable experiences that win the intrinsic interest of students. Sarah Lynne Bowman makes a compelling case towards using role playing in a variety of contexts, mentioning business, education, military training, improvisational theater, drama therapy, health care and leisure. In her view, role-playing enhances a group's sense of communal cohesiveness by providing narrative enactment within a ritual framework, encourages complex problem-solving and provides participants with the opportunity to gain experience, while being capable of offering participants a safe space to enact alternate personas ^[27]. She demonstrates that role-playing encourages creativity, self-awareness, empathy, group cohesion and "out-of-the-box" thinking. For the specific case of combating fake news and raising resilience against disinformation, Jon Roozenbeek and Sander van der Linden [28] propose the fake news game, explaining how the inoculation theory proves effective for developing participants' ability to recognize and resist fake news. The game is freely accessible on the internet under the title "Bad news game," with brief indications regarding the inoculation theory-a "vaccine against fake news"-role playing in producing fake news messages and guidance to post-game debriefing, to reflect upon the experience. Other models and games are described in literature ^[29], but the one developed and studied by Roozenbeek and van der Linden seems to be a forerunner, highly recommended as a verified tool for combating disinformation^[4]. A semester-long playing and debating a Roozenbeek and van der Linden-inspired game in a communication studies classroom led to the conclusion that inoculation lessens in power and needs reinforcement, until the desired behavior is consolidated in the participants and becomes part of their way of reasoning. In using this method, educators need to keep in mind that while the gaming experience stirs students' interest and enthusiasm, their resilience against fake news seems to need repeated and more complex efforts.

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