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Exploring meta-level thinking as a tool to fight fake news and digital gender-based violence. Insights from the MEDEA educational Toolkit

When we read the daily news in newspapers, we often trust that the information is true without verifying its sources. The problem arises when the same newspapers report "fake news", i.e., incorrect news that ends up influencing the reader's view, who will perceive the situation described based on the information received. Aristotle's logical framework, for example, explains how external interference can shape our perception of reality.

This issue gave rise to the MEDEA project, developed by three partners: Jelgavas Zonta Klubs, Skill UP, and the Novi Sad School of Journalism. The Toolkit, presented in April 2025 in Novi Sad, Serbia, consists of six modules on strategies to prevent digital violence. The first two modules of the Toolkit focused on Meta-Level Critical Thinking and the prevention of technology-facilitated gender-based violence.

The concept of Meta-Level Critical Thinking, studied by psychologist John Flavell in 1976, is part of general intelligence, and in particular,r fluid intelligence. Fluid intelligence is the type of intelligence that allows individuals to adapt to any situation and solve and manage any type of problem, regardless of their previously acquired skills. Meta-level thinking is, in fact, the ability to understand and manage one's own cognitive processes. Through self-awareness, human beings are able to face a problem, recognize their own limitations and abilities, and consequently adopt the best strategies to solve it. Furthermore, the word "metacognition" itself, derived from Greek, is divided into "meta", meaning "beyond", and "cognition", meaning "understanding", indicating the meaning of the word itself, i.e., knowledge of thought.

In relation to this concept, we find the studies of Nelson and Narens, who, in the field of cognitive neuroscience, identified two main components of metacognition: metaknowledge and meta control. The former refers to the awareness that human beings are endowed with their own cognitive processes and includes the ability to reflect on these processes themselves, while meta-control refers to the self-regulation that allows us to adapt our behaviour to the results of cognitive processes. Among scholars, there are those, such as Bandura, who have extended the concept not only to cognitive processes but also to

emotional ones. In any case, thanks to metacognitive activity, we are able to regulate our cognitive processes and, consequently, control and manage our learning processes.

Why is this important? With meta-level thinking, we protect our minds from the negative influence of external forces, such as fake news, which often presents a distorted view of reality.

Is it possible to develop metacognitive thinking? Scholars have identified effective strategies for developing this form of thinking. These involve reflection and practising these learning mechanisms.

In addition to combating misinformation, the MEDEA project also places strong emphasis on the gender dimension of media narratives. One of its core goals is to prevent technology-facilitated gender-based violence (TFGBV) by promoting critical awareness of gender-based manipulation and media stereotypes. This approach recognises the way in which online violence often targets women and marginalized groups and highlights the need for inclusive and ethical media consumption and production.

The development of meta-level critical thinking is not only a theoretical construct but a practical necessity in today's media-saturated environment. By cultivating metacognitive awareness, educators and learners alike can strengthen their resistance to disinformation and digital manipulation, especially when such manipulation perpetuates gender-based violence and stereotypes. The MEDEA Toolkit offers structured and accessible educational modules that support adult educators in promoting critical and ethical media engagement. Through its practical tools and reflective activities, the Toolkit is a valuable resource for building inclusive and safe digital learning environments.

👉 For more information about the MEDEA project and to access the Toolkit, visit https://www.facebook.com/MedeaErasmusProject

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