

THE ROLE OF CRITICAL THINKING IN THE DIGITAL AGE: HOW HIGHER EDUCATION RESPONDS TO THE CHALLENGE

Summary

This research explores the crucial role of critical thinking in the digital age and examines how higher education systems respond to related challenges. Drawing on survey data from 12 Ukrainian universities, the study highlights a gap between students' perceived and actual competencies in verifying information and resisting disinformation. It argues that critical thinking is no longer a soft skill but a foundational civic competence.

The article emphasizes the need to integrate critical thinking across all academic disciplines to enhance cognitive resilience and ethical decision-making. Particular attention is given to fields with heightened social responsibility, such as public administration, law, and management.

The rapid development of digital technologies and the widespread availability of information have not only driven the democratization of certain political systems and created unprecedented opportunities for citizens to participate in decision-making processes at various levels of government, but have also fostered the illusion of easy access to reliable information. Undoubtedly, the digital age offers remarkable possibilities for learning, communication, and knowledge access. However, it also brings significant challenges. The global spread of disinformation, manipulation, and fake content poses serious threats to both security and democratic processes.

In this context, critical thinking becomes not just a desirable skill, but a key civic competence—emerging at the intersection of civic and digital literacy. Higher education, as the institution responsible for preparing future decision-makers,

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bears particular responsibility for equipping students to meet these challenges.

The development of critical thinking skills in the digital age should be considered not only as part of a holistic approach to preparing competitive professionals for the labor market, but also as a measure of the education system's capacity to respond to the global challenges of our time.

A study conducted by experts from Igor Sikorsky Kyiv Polytechnic Institute with the support of the Hanns Seidel Foundation provided deeper insights into the capacity of Ukrainian higher education institutions to foster professionals equipped with critical thinking skills relevant to the digital era. The research reflects the results of a survey conducted among students at 12 Ukrainian universities. The survey focused on measuring the level of civic competence among students in disciplines most closely related to decision-making

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processes: public administration, management, law, international relations, and several others.

The data reveal a striking and concerning gap between students' self-assessment of their digital competencies and their actual behavior. For instance, 86.7 % of students rated their awareness of how to verify the reliability of information about socio-political events as high or rather high. Similarly, 90.4 % fully or mostly agreed that they were able to distinguish between truthful information and fakes. This indicates a high level of confidence among young people in their abilities. At the same time, 13.8 % of respondents admitted to having recently shared information that was later refuted (Socioplus KPI, 2025). While this figure may seem modest, it serves as an important indicator: despite their confidence, a considerable portion of students still fall victim to disinformation. This suggests that their critical analysis skills are either underdeveloped or inconsistently applied in practice. Notably, some respondents may have become inadvertent conduits of disinformation without realizing it.

Another important point: the study found that 84.8% of students receive information about socio-political events via messengers and analytical channels (e.g., Telegram, Viber), which often lack professional editorial oversight and are fertile ground for manipulative content.

Clearly, critical thinking is not limited to fact-checking. It also encompasses the ability to analyze arguments, recognize manipulation, and take responsibility for one's actions, including the dissemination of information. Moreover, it includes the capacity to critically assess information sources and overcome the so-called "Google Effect"—the habit of over-relying on easily accessible online information without retaining its essence. The weakening of such cognitive skills is likely to be further accelerated by the spread of generative AI technologies that automate data retrieval and processing tasks.

The evolution of technologies for creating, storing, distributing, and accessing information has

signaled a fundamental shift in the demands placed on professionals. A deeper understanding reveals that digital literacy—especially when combined with critical thinking—is foundational for cultivating civic engagement and responsibility in the digital public sphere. This reframes individuals from passive consumers of content into proactive, ethical participants capable of critically evaluating, contributing meaningfully to, and even challenging dominant narratives. This reconceptualization highlights the importance of responsible and proactive use of digital tools—not just technical proficiency—as crucial for navigating the complexities of digital civic life.

Today, the higher education system must recognize that it is no longer sufficient to merely declare the importance of cultivating critical thinking skills. The challenges of the digital age compel a shift in perspective: critical thinking is evolving from a basic ability to detect falsehoods into a dynamic, adaptive metacompetence—essential for fostering cognitive resilience. This is particularly relevant for professionals in socially responsible fields such as public administration, law, and management. For them, critical thinking is not only a tool for personal navigation, but also a fundamental precondition for effective and ethical professional performance.

This underscores the urgent need to integrate critical thinking, argument analysis, and manipulation recognition not only into specialized media literacy courses, but across the entire curriculum—from history and political science to the natural sciences and engineering. It calls for a focus on practical, real-life scenarios and discussions of ethical dilemmas related to information dissemination. Ultimately, such skills should be embedded within students' ability to act as engaged civic agents. Only such a comprehensive approach can ensure the preparation of professionals who are not only capable of navigating the complex digital world, but also of actively and responsibly shaping its future.

References

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