AI4Debunk

Fake News, Media Literacy and Critical Thinking

Pascaline Gaborit
Pilot4DEV

**This is a summary of Public Deliverable D4.2.
Please refer to the full document to find the detailed information**

The spread of disinformation and misinformation has a long history, but the term "fake news" became particularly prominent in public discourse during the 2016 American presidential election. It has been recognized since then as one of the major threats to security in European countries. The danger posed by fake news to society has become evident, especially during major events like the Covid-19 pandemic and the Russian invasion of Ukraine. As a result, certain governments have enacted legislation to combat disinformation.

Despite these efforts, the problem of fake news remains largely unresolved by current legislation which focused mainly on platform regulation and collaboration with service providers to curb the spread of fake news.

Harmful information encompasses more than just disinformation; it can also include various forms of hate speech and harassment, which are also targeted by regulation.

Increasing media literacy has been proven to be an effective strategy for building societal resilience against disinformation. In today's society, where nearly everyone is connected to the internet, owns a smartphone, and experiences boundless connectivity, the importance of media literacy is clearer than ever. This need is highlighted by trends such as social polarization, digitalization of services and consumption, climate change, and the spread of disinformation and propaganda.

While fact-checkers, journalists, and regulatory measures contribute to addressing misinformation, they are insufficient on their own to tackle the vast scale of the problem. Critical thinking stands out as a powerful tool to counteract the spread and influence of misinformation at the individual level. As a fundamental skill for media literacy, it helps individuals understand the techniques and methods used to manipulate information, enabling them to make informed judgments when confronted with misinformation. By developing these skills, individuals can better navigate the complex information landscape, making decisions based on evidence rather than assumptions or biases.

Overall, critical thinking has the potential to increase awareness and build societal resilience against false information and disinformation.

Critical thinking and how new technologies shape our understanding

In OECD countries, the spread of ICTs has favored the monopoly of digital platforms, weakened competition, and widened inequalities. The concentration of digital power in a few companies has led to concerns about market dominance, privacy, and the ethical use of data.

Regulatory bodies around the world are grappling with how to address these challenges and ensure that the benefits of digital technologies are shared more equitably.

The rapid pace of technological change continues to outstrip the ability of regulatory frameworks to keep up. As a result, there is an ongoing struggle to balance innovation with the protection of individual rights and societal values. The future of the digital landscape will depend on how these complex and interrelated issues are addressed by governments, businesses, and civil society.

The integration of digital technologies into every aspect of life has created new opportunities and challenges for large businesses to store data and scale up their business. They also have created open paths for malicious actors to develop massive threats and for certain governments (or groups) to control society to the detriment of privacy and human rights. They also transform geopolitical games with transnational cyber threats and foreign interference, as there are no boundaries in connectivity.

Digital technologies have reshaped the game in the use of power, changed the geopolitical landscape and have reshuffled the cards to the detriment of individual freedoms and of vulnerable groups.

As we move forward, it is essential to foster a collaborative approach that includes diverse stakeholders from different sectors and regions. This will help ensure that digital transformation is guided by principles of inclusivity, fairness, and sustainability. Additionally, education and public awareness about digital rights and responsibilities will be critical in empowering individuals to navigate and shape the digital world responsibly.

Another important point raised was the need to avoid relying blindly on AI when countering fake news and instead encourage curiosity and understanding of how AI systems work.

Some participants and interviewees of AI4DEBUNK focus groups for instance called for initiatives to "de-mystify AI" and large language models, arguing that people often engage passively with AI without comprehending its underlying processes. They suggested that fostering curiosity about machine learning from an early age could help in making these tools more accessible to the general public. The same 'literacy' effort should be made for all emerging technologies.
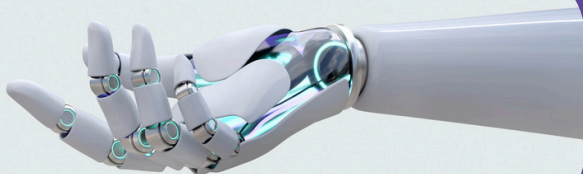
From Critical Thinking to Media Literacy

Critical thinking plays a crucial role in countering "fake news" and disinformation, especially when other institutions fail to address these issues. Trust in the media is important and is built on the expectation of reliable and trustworthy information. However, trust can be dysfunctional in building resilience against disinformation. While citizens often expect journalists to tackle disinformation, we cannot solely rely on the media to act as watchdogs against these threats. In the post-truth era, blind trust is inappropriate, and a degree of skepticism is necessary. Although trust in the media is valuable, blind faith can decrease resilience to misinformation. Lower media legitimacy and trust are associated with greater resistance to misinformation. Citizens who approach the media with pragmatic skepticism are more resilient to misinformation. To prevent outright distrust of traditional media, the media should be more transparent about their sources, potential biases, and methods. This transparency would allow citizens to critically assess the information provided, fostering a pragmatic skepticism. By increasing transparency, the media can encourage critical thinking while maintaining fundamental trust in legacy media.

Critical thinking involves self-regulation, monitoring and controlling our emotional biases. This ability helps individuals enhance their cognitive skills and reduce emotional biases. Recent research has found that anger and anxiety are emotions that could lower our belief accuracy, give more partisan tendencies, which makes individuals more vulnerable to believing in disinformation.

Self-regulation could particularly in politically divisive topics reduce our vulnerability to misinformation.

In today's social media environment, polarization fosters the creation of "filter bubbles." Personalized content reinforces users' existing beliefs and worldviews, reducing their openness to alternative perspectives or counterarguments. This dynamic also influences voting behavior. An increasing number of young people rely exclusively on social media for news, making them particularly susceptible to the effects of these "filter bubbles".

Moreover, artificial intelligence is also affected, since algorithmic biases may restrict critical analysis and reinforce users' pre-existing biases. Both these issues underscore the importance of self-regulating our emotions as a part of our critical thinking skills and minimize the power of anger and fear when consuming news online. Future research on critical thinking should place greater emphasis on the role of self-regulation and the ability to assess information independently of one's emotions, an aspect that grows increasingly important with the rising use of social media and its potential influence on electoral behavior.

In Estonia, media literacy is part of national defense against hybrid warfare, particularly Russian disinformation. Military personnel are trained to spot deceptive content, yet research shows gaps—such as challenges in verifying images or identifying credible experts. Since disinformation often relies on manipulated visuals and pseudo-experts, media literacy, while highly effective, remains insufficient on its own.

Critical thinking is crucial in combating misinformation and disinformation, as emphasized by the European Commission and various media literacy initiatives across the EU. It equips individuals with essential skills to analyze, evaluate, and interpret information, enabling them to make informed judgments. Educational strategies for fostering critical thinking include both general and discipline-embedded approaches, each with their own strengths and limitations. The general approach supports broad application but may struggle with skill transfer across contexts. Critical thinking also involves maintaining healthy skepticism towards media credibility, crucial in the post-truth era to enhance resilience against misinformation. Self-regulation, a core aspect of critical thinking, aids in overcoming personal biases and managing emotions, reducing vulnerability to misleading content. Ultimately, developing critical thinking skills is vital for building societal resilience and fostering a more informed public.

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In conclusion, the evolution of cyberspace and digital technologies has brought about significant changes in how we live, work, and interact. While the potential benefits are immense, so are the risks and challenges. By addressing these issues thoughtfully and proactively through critical thinking, media literacy, AI and emerging technologies' literacy and beyond, we can harness the potential of technology and limit the harms and risks for individuals and societies.

References

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Pascaline Gaborit
Pilot4DEV

Pascaline Gaborit is a researcher, consultant, expert and trainer. She holds a PhD in political science on the topic 'Trust and Conflicts'. She is the founder of the think tank/NGO Pilot4DEV and works as a consultant on the evaluation/quality assessment of different international programs and projects.

She published books and articles on international cooperation, resilience, culture, development, gender equality and climate adaptation. She was the director of the Pilot Cities international network for more than 12 years and worked as an adviser for other think tanks.

She currently works on projects related to research and action on resilience, sustainability, climate adaptation, dialogue, fake news, artificial intelligence, human rights and democracy.