

POLICY BRIEF “Building Resilience in the Digital Age”

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Introduction

Driven by innovation and technological evolution, **the digital transformation is reshaping society**, education and the world of work. Digital skills development has become essential for our everyday lives, and younger generations in particular spend many hours on new technologies, e.g. social media. This “new normal” can cause severe mental health issues. Yet, only very few EU policies address mental health and well-being in relation to technology.

This policy brief proposes three recommendations including concrete initiatives to the European Commission in order to mitigate the negative consequences on mental well-being in the digital age. These recommendations include procedures to increase the awareness of policymakers as well as the general public, and measures to increase the mental resilience of individuals.

Digitalisation and the impact on mental health and well-being

Rapid digitalisation over the past decade has transformed many aspects of work and daily life. This digitalisation has been further emphasized during the Covid-19 pandemic as we became even more dependent on technology to connect us to the rest of the world. With computers and algorithms mediating many daily activities, it is important to educate people of all ages about the **impact of digital technology on well-being** and the way technology systems work¹.

European Union initiatives like the European Mental Health Action Plan have already highlighted the issue of mental health and the need for solutions within the EU.

¹ Digital Education Plan 2021 - 2027, 2020. Available at: <https://education.ec.europa.eu/focus-topics/digital/education-action-plan>

However, the pandemic has highlighted factors of isolation and the transition to online work and education, which has increasingly contributed to mental health issues. Longitudinal studies have indicated **significant increases in anxiety (18%–25%) and depression (22%–32%)** when comparing pre-pandemic and mid-pandemic survey data². We believe these are highly worrisome numbers that showcase the need for a call to action regarding the mental health crisis and the impacts from Covid-19.

Young people and women are especially affected

The mental well-being of young people and women is disproportionately affected by our digital world. **Ages 18–25 are a developmentally sensitive period** and this is often when the first onset of mental illness occurs³. According to research done by the OECD this threshold is progressively shifting towards an earlier age with half of all mental illnesses beginning by the age of 14. Thus, it is vastly important that we pay special attention to adolescents and younger age groups, in order to prepare them for the digital environment and to teach them how to grow their mental health resilience in the digital world.

The negative impacts of digitalization include but are not limited to cyber-bullying, extensive harmful use of the internet, safety issues, and with Artificial Intelligence (AI) and automation continuously developing, it will get harder for people to distinguish between what is real and what is not. The negative impacts of digitalization are highlighted in the following examples;

Young people, who spend more than six hours online outside of school are more likely to report that they are **not satisfied with their life** or that they feel lonely⁴.

Nearly half of young people **(47%) have received intimidating, threatening, or nasty messages online**⁵ resulting in depression and anxiety.

² Margaret McLafferty a, Natasha Brown and others: “*Depression, anxiety and suicidal behaviour among college students: Comparisons pre-COVID-19 and during the pandemic*” (2021).

³ <https://pubmed.ncbi.nlm.nih.gov/17551351/>

⁴ <https://www.istanbuleducationsummit.com/post/children-young-people-s-mental-health-in-the-digital-age-by-the-oecd-in-2018-1>

⁵ *Safety net: The impact of cyberbullying on children and young people’s mental health*, February 2018

Safety issues including phishing, pretexting, and social engineering also pose a risk to technology safety and well-being.

Furthermore, while AI is aiming to transform our lives for the better, the increasing automation of processes in our everyday lives is affecting how we live and influencing our judgment.

Women's mental health is particularly vulnerable to the evolution of online content. For instance, those who spend more time on social media often experience body dissatisfaction⁶ and are also more likely to develop depressive symptoms compared to their male counterparts. They are also the main target of deepfakes, i.e. AI-generated audios and videos that can artificially replace one person with another. **90% of this content involves women and of this figure, 90-95% represent non-consensual pornography⁷.** Already facing threats to their confidence from alterations of pictures, an added layer of deepfake can disrupt self-image and the perception of reality. This concern is ever increasing with the growth of deepfake creation communities, currently standing at 20 communities and forums with 95,791 members⁸.

Recommendations

1. Support research to understand the effects of tech on mental health and well-being in order to address these in future policies.

Technologies are evolving at a fast pace and across very different use cases; technology is intertwined in almost everything we do. Thus, it is not possible to capture all possible negative effects on mental health and well-being in a single policy. Furthermore, current policies almost never include measures to mitigate negative effects on mental health. For instance, the Digital Education Plan aims to support the sustainable and effective adaptation of the education and training systems of EU Member States to the digital age but does not propose measures to

⁶ <https://pubmed.ncbi.nlm.nih.gov/25462886/>

⁷ Sensity AI. (2020, December). *The State of Deepfakes 2020: Updates on Statistics and Trends*.

⁸ https://regmedia.co.uk/2019/10/08/deepfake_report.pdf

increase the mental resilience of students⁹. For this reason, the European Commission should implement a procedure, making it mandatory to consider possible consequences for mental health when proposing a policy on digital skills development or new technologies.

In order to develop interventions, we must first increase our understanding of the connection between mental well-being and digital technology. The collection of data highlighting the negative impact is essential. This data will allow trends to be identified and further insight into the interventions needed to address this issue. This research should be conducted across the wider population but there should also be a focus on young people and women in order to understand why these demographics are disproportionately affected. A dedicated analysis of the mental health effects on vulnerable demographics is proposed whenever a new intervention is implemented.

2. Raise awareness and incorporate mental well-being into school curricula.

Public institutions must help spread public awareness of the challenges arising with regard to mental health when new technology is implemented. This includes emphasizing and confronting the issues, but also bringing already existing solutions forward, as well as supporting the establishment of new initiatives that can help alleviate problems. Recently, more focus has been put on the topic of mental health, but there is still much to be done. With the ever-increasing pressure of social media, this struggle is bound to expand, thus great care must be exercised swiftly. A concrete project to alleviate this would be to initiate a “European Year of Mental Well-Being”, to focus attention on the topic of mental health as well as the further de-tabooing of the subject.

We also need to teach young people to use technology in a manner that benefits them rather than negatively impacting their quality of life. Education systems must adapt their curricula to include mental health and well-being, especially from the perspective of the Digital Age. Young people, being the most affected age group for mental health issues, need to be provided with the knowledge and resources to manage their mental health from a young age. Gen Z (born from 1997-2015) are

⁹ Digital Education Plan 2021 - 2027, 2020. Available at: <https://education.ec.europa.eu/focus-topics/digital/education-action-plan>

regarded as technology dependent, having grown up in an online world¹⁰. Just as many European countries are creating policies to make computing classes mandatory in school curricula¹¹, mental health and the skills to identify, defend and learn from harmful challenges in the digital space, need to be incorporated into these classes.

3. Use tech solutions as tools

The recognition of mental health issues in digital decision-making should be a united effort that aims at a solution and creates a safer digital space involving all relevant parties. Not only is collaboration between institutions and organizations critical, but all currently available (and incoming) digitally specific tools and resources for these efforts should be put together to tailor decision-making to the needs of the digital space. There are many technology-driven and digital space-focused mental health tools that are available to users, including those related to diagnosis, treatment and other services. However, digital tools that prevent damage to the mental well-being of digital users are lacking.

Tools such as AI can be harnessed to actively combat abuse targeting digital media consumers, discourage creation of harmful content and penalize its distribution. With a high workload and specific domain knowledge this would have been impossible to implement solely through human action, however using AI, this problem can be mitigated and quality control can be assured. Such a tool could ensure mandatory digital labelling of online multimedia content to differentiate AI-generated synthetic media from human-origin media.

The AI-label would be a proactive tool to prevent deep fakes, and ensure a safer digital space through:

- A critical evaluation of multimedia content carried out by digital media facilitators and platforms, and encouraging digital media consumers to critically evaluate what they are viewing.
- Re-elaborating online content by labelling synthetic media, discouraging the creation of illegal and abusive synthetic media and penalizing its distribution.

¹⁰ <https://wpengine.com/resources/gen-z-2020-full-report/>

¹¹ Bocconi, S., Chiocciariello, A., Dettori, G., Ferrari, A. and Engelhardt, K. 2016. Developing Computational Thinking in Compulsory Education: Implications for Policy and Practice. Luxembourg, European Commission Joint Research Center.

- Protecting digital content by ensuring reliability and privacy through appropriate safety measures.
- Protecting mental well-being by avoiding threats to social, physical and psychological well-being while consuming and producing digital media.

Conclusion

This policy brief has highlighted that, despite our growing efforts to improve digital skills and competencies as we progress through the Digital Age, we have neglected to consider the impact that such developments might have on our mental well-being. Technology is becoming increasingly interconnected in our everyday lives, and we are becoming continuously more technology dependent. Thus, it is imperative that we equip ourselves, society and especially vulnerable groups with the knowledge and tools to use technology in a manner that positively impacts mental well-being. This also means that the implementation of new technology must be analysed from a perspective that incorporates mental health and well-being.

This paper has highlighted the growing issues of anxiety and depression in relation to our online world, with an average 25% prevalence increase during the Covid-19 pandemic¹². It was also shown that young people and women are more affected than other demographics, and are often the targets of ill-intended online behaviour. This paper makes several recommendations ranging from awareness raising to solution-based interventions. First, a study must be conducted in order to deeper understand the issue at hand. Once this data is collected, awareness needs to be raised among the public. Using existing technologies is recommended and policymakers are advised to incorporate a mental health and well-being lens when dealing with new technologies. Further dependency on technology in our everyday lives is inevitable and therefore it is imperative that we create long-term solutions now in order to prevent any further negative impact on mental health and well-being.

¹² [https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide#:~:text=In%20the%20first%20year%20of,Health%20Organization%20\(WHO\)%20today](https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide#:~:text=In%20the%20first%20year%20of,Health%20Organization%20(WHO)%20today)