

# Webinar Summary: The Metaverse: A Role to Play in Mental Healthcare?

[This webinar summary was published in the [EACME Newsletter number 64 in September 2023](#)]

On April 25<sup>th</sup>, 2023, the Forum for Global Health Ethics hosted a [webinar entitled “The Metaverse: A Role to Play in Mental Healthcare?”](#). The forum is an outreach initiative at the University of Zurich, gathering stakeholders with various backgrounds to discuss critically ethical issues in global health. The webinar provided an overview of the state of the metaverse and related digital applications in mental healthcare, its potential, and its risks. The necessity to regulate the field was also discussed. Three speakers were invited, each representing a different field of expertise. Thomas Douglas is a philosopher and works as a Professor of Applied Philosophy at the University of Oxford. Victoria Lush has a background in computer science and is a post-doctoral researcher at Aston University. Katitza Rodríguez is a lawyer working as a policy director at the Electronic Frontier Foundation. Tania Manríquez Roa and Nikola Biller-Andorno from the University of Zurich in Switzerland hosted the session.

## [The metaverse: a response to a shortage in mental healthcare support?](#)

Victoria Lush started the webinar by discussing the metaverse’s potential in mental healthcare, drawing on her knowledge and the work of Ulysse Bernander, Christopher Buckingham, and Jomar Alcantara. She highlighted the global significance of mental health issues, leading to disability, reduced life expectancy, and high costs for healthcare systems. Despite the importance of the conditions, there is a shortage of mental health professionals and inadequate public funding. In the United Kingdom (UK), the demand for mental health support surpasses the available resources, resulting in extended waiting times (at least six weeks). Other organizations also provide support. For instance, mental healthcare charities gather information for self-support, but users often feel overloaded with information. Additionally, self-assessment and self-management tools online and numerous mental health-related apps provide “on-the-go” therapy advice. However, those online tools are often unregulated and thus lack supervision with regard to their validity and efficiency.

Digital technologies using augmented and virtual realities (AR / VR) offer solutions. Lush emphasized their capacity to provide intermediate support to those with limited access to practitioners. Diagnostic and self-help tools enable continuous mental health assessment, reducing the need for immediate professional intervention. Generally, technologies could help scale up the mental health offer. However, Lush noted that access to technologies can also be challenging and thus may not reach everyone. The researcher also explained that AR and VR technologies can make cognitive-behavioral therapy (CBT) and training more engaging and novel than filling out paper-based questionnaires or online forms. Treatments can also become more personalized and on-demand. Virtual social and peer support networks may feel safer for people with social anxiety than attending an in-person event. Emotional virtual companions could also tackle isolation. Nevertheless, Lush cautioned that reliance on virtual companions may hinder real-world social interaction.

## [How to mitigate the risks in the metaverse?](#)

Katitza Rodríguez highlighted the increasing interest of companies to use AR / VR in their business activities. While acknowledging that the technology is not yet advanced, Rodríguez emphasized the need to consider the potential risks of data misuse. For instance, she raised concerns about advertisers gaining access to brain data to not only understand consumer interests but also manipulate desires and preferences directly. Meanwhile, sensors are improving every year, and users are eager to wear these devices.

Currently, wearable devices already record sensitive data. For example, wearable devices collect biometric data and health indicators. According to Rodríguez, AR / VR technologies are expected to elevate data collection for immersion (e.g., exposure therapy) and monitoring purposes (e.g., to send help alerts). These devices measure not only conscious activities but also unconscious mental processes, necessitating informed consent. Public awareness should be increased since individuals may unknowingly reveal personal information.

According to Rodríguez, the legal debate and existing international human rights frameworks have focused on conscious and voluntary reactions to data privacy and protection issues. Meanwhile, newer artificial intelligence (AI) technologies collect unconscious mental processes and thus create more complex situations for data protection. Regulations like GDPR focus on the use and the sharing of personal data, whereas mental privacy is a more extensive matter, as it is more deeply connected to individuals. This raises questions about accessing files containing inner thoughts when, for example, law enforcement requests the medical records of a suspect.

Furthermore, the private sector may not be subject to existing norms or be aware of standard procedures to address ethical concerns. Rodríguez argued that fostering competition and a decentralized approach to development could benefit individuals by giving them more choices, allowing companies to compete based on superior privacy protection. Moreover, Lush underlined the need to involve practitioners in self-assessment technology development as well as to conduct risk assessments. Another avenue to explore is restricting the collection of data and its repurposing; however, this requires a capacity to encrypt data safely.

### The need for a right to mental integrity

Thomas Douglas argued that individuals should have a right to mental integrity, similar to bodily integrity. Informed consent should be required for any interference with our minds, even in non-physical interventions. This right is based on the principle of self-ownership, where everyone owns their body and mind. It also aligns with the moral intuition that practices such as forcing medication or non-consensual use of hypnotic techniques are wrong. In the context of virtual therapy, this right becomes particularly significant as interventions may come from non-medical practitioners, such as tech companies. Unlike medical staff, technicians are not used to follow ethical norms and healthcare-related regulations. Similarly, Rodríguez highlighted that companies are increasingly using sensors to monitor attention levels or identify individuals. She also explained that big tech companies have economic incentives to repurpose data to maximize profits. At the same time, hackers may target brain-computer interfaces and thus steal personal thoughts and memory. The webinar's discussion underlined the importance of regulating virtual therapies, especially as Douglas noted that psychological harm is currently less regulated than physical harm.

### When could the right to mental integrity be violated?

Douglas identified two situations where non-consensual interventions could violate mental integrity. Firstly, there are interventions that alter thoughts or attitudes without providing reasons. For example, reducing arachnophobia by explaining the low risks associated with spiders would not infringe mental integrity since it is based on logic. However, exposing someone to subliminal images of attractive people with spiders to decrease their fear would violate their right to mental integrity. Secondly, interventions that modify thoughts or attitudes in ways that are difficult to resist are problematic. For instance, if a therapist alters the virtual reality environment of an enthusiast to include spiders, it infringes mental integrity as it lacks reasoning and restricts the individual's ability to reject the intervention.

Furthermore, the question arises as to whether nudging can interfere with the right to mental integrity, even if it encourages users to engage with privacy policies, for example. Douglas and Rodríguez

expressed concerns about nudging potentially infringing on the right to mental integrity. Douglas emphasized the importance of considering the effects on individuals' thoughts and attitudes, suggesting that some nudges may undermine autonomy and invalidate consent if resistance is difficult.

In the webinar discussion, Douglas also highlighted the need to grant a right to mental integrity as a fundamental moral principle. Nevertheless, from a legal perspective, there is a need to narrow the scope of the right to mental integrity. This entails focusing on specific technological interventions to ensure enforceability.

### Conclusion and future research

In sum, Lush highlighted that AR / VR technologies open opportunities not only to reduce the supply-demand gap, but also to improve the quality of services. At the same time, there are concerns that these technologies may not live up to their potential as people may not access technologies, or they could exacerbate mental health issues by disconnecting people from one another. In addition, Rodríguez underlined that the increasing collection of sensitive and personal data raises concerns about data misuse and theft.

Regulations governing the use of AR/VR technologies in mental healthcare need to be established and revised, mainly due to the entry of companies into this field. The discussion suggested mandating informed consent, raising public awareness, fostering competition and a decentralized approach to technological development, granting and protecting a right to mental integrity, involving medical practitioners, and conducting risk assessments.

Additionally, Lush reckoned that exceptions will always be necessary to deliver services to everyone depending on their needs. For example, people with visual impairments could benefit more from therapy with audio immersion rather than visual virtual reality. Furthermore, not everyone has access to AR / VR technologies, a smartphone, or the internet. It is, therefore, vital to legally guarantee the provision of alternative offline services.

Finally, based on the comments from all speakers, future research in this field will likely focus on developing specific regulations tailored to different contexts and creating effective strategies for their implementation. Another critical aspect to consider, mostly highlighted in Lush's presentation and answers, is how to leverage AR/VR technologies to ensure their benefits are accessible to all, without exacerbating existing inequalities. It is crucial to avoid a scenario where technology becomes the sole solution for individuals without access to medical professionals. In addition to the valuable insights shared during the webinar, it is worth considering the importance of incorporating user perspectives in the design of technologies for mental healthcare. The inclusion of user experiences, particularly from individuals with impairments, can offer unique expertise that is sometimes overlooked. There is a necessity to ensure that virtual environments are flexible enough so that they can be navigated by people with impairments. For instance, AR/VR technologies can include captions to facilitate communication or color contrast and magnification options to make the environment more visible (see Dick, 2021). User input also has the potential to enhance the acceptability and effectiveness of these technologies, ultimately leading to more impactful solutions for mental healthcare.

### Further Readings

- Dick, E. (2021, June 1<sup>st</sup>) [Current and Potential Uses of AR/VR for Equity and Inclusion](#). Information Technology and Innovation Foundation.
- Lighthart, S., Ienca, M., Meynen, G., Molnar-Gabor, F., Andorno, R., Bublitz, C., . . . Kellmeyer, P. (2023). [Minding Rights: Mapping Ethical and Legal Foundations of 'Neurorights'](#). *Cambridge Quarterly of Healthcare Ethics*, 1-21.

- Lush, V., Buckingham, C., Edwards, S., & Bernardet, U. (2020). [Towards Accessible Mental Healthcare through Augmented Reality and Self-Assessment Tools](#). *International Journal of Online and Biomedical Engineering (iJOE)*, 16(04), pp. 33–42.
- Gloeckler, S. and Biller-Andorno, N. (2023) [Mental health services in the metaverse: potential and concerns](#). *Swiss Medical Weekly*. Vol. 153 No. 4
- Rodriguez, K. and Mir, R. (2022, December 24th). [Pivotal Year for the Metaverse and Extended Reality: 2022 in Review](#). Electronic Frontier Foundation.