

Defining the line between virtual and reality: Investigating metacrime and cybercrime

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If you thought your kids were away from harm playing multi-player games through VR headsets while in their own bedrooms, you may want to sit down to read this.

Griffith University's Dr. Ausma Bernot teamed up with researchers from Monash University, Charles Sturt University and University of Technology Sydney to investigate what has been termed as

"metacrime"—attacks, crimes or inappropriate activities that occur within virtual reality environments. The paper is [published](#) in the *Asian Journal of Criminology*.

The "metaverse" refers to the virtual world, where users of VR headsets can choose an avatar to represent themselves as they interact with other users' avatars or move through other 3D digital spaces.

While the metaverse can be used for anything from meetings (where it will feel as though you are in the same room as avatars of other people instead of just seeing them on a screen) to wandering through [national parks](#) around the world without leaving your [living room](#), gaming is by far its most popular use.

Dr. Bernot said the technology had evolved incredibly quickly.

"Using this technology is super fun and it's really immersive," she said. "You can really lose yourself in those environments. Unfortunately, while those new environments are very exciting, they also have the potential to enable new crimes.

"While the headsets that enable us to have these experiences aren't a commonly owned item yet, they're growing in popularity and we've seen reports of sexual harassment or assault against both adults and kids."

In a December 2023 report, the Australian eSafety Commissioner estimated around 680,000 adults in Australia are engaged in the metaverse.

This followed a survey conducted in November and December 2022 by researchers from the UK's Center for Countering Digital Hate, who conducted 11 hours and 30 minutes of recorded user interactions on Meta's Oculus headset in the popular VRChat.

The researchers found most users had been faced with at least one [negative experience](#) in the virtual environment, including being called offensive names, receiving repeated unwanted messages or contact, being provoked to respond to something or to start an argument, being challenged about cultural identity or being sent unwanted inappropriate content.

Eleven percent had been exposed to a sexually graphic virtual space and nine percent had been touched (virtually) in a way they didn't like. Of these respondents, 49 percent said the experience had a moderate to extreme impact on their mental or emotional well-being.

With the two largest user groups being minors and men, Dr. Bernot said it was important for parents to monitor their children's activity or consider limiting their access to multi-player games. "Minors are more vulnerable to grooming and other abuse," she said.

"They may not know how to deal with these situations, and while there are some features like a 'safety bubble' within some games, or of course, the simple ability to just take the headset off, once immersed in these environments it does feel very real.

"It's somewhere in between a physical attack and for example, a social media harassment message—you'll still feel that distress and it can take a significant toll on a user's well-being. It is a real and palpable risk."

Monash University's You Zhou said there had already been many reports of virtual rape, including one in the United Kingdom where police have launched a case for a 16-year-old girl whose avatar was attacked, causing psychological and [emotional trauma](#) similar to an attack in the physical world.

"Before the emergence of the metaverse we could not have imagined

how rape could be virtual," Mr. Zhou said. "When immersed in this world of virtual reality, and particularly when using higher quality VR headsets, users will not necessarily stop to consider whether the experience is reality or virtuality.

"While there may not be [physical contact](#), victims—mostly young girls—strongly claim the feeling of victimization was real. Without physical signs on a body, and unless the interaction was recorded, it can be almost impossible to show evidence of these experiences."

With use of the metaverse expected to grow exponentially in coming years, the research team's findings highlight a need for metaverse companies to instill clear regulatory frameworks for their virtual environments to make them safe for everyone to inhabit.

More information: You Zhou et al, Metacrime and Cybercrime: Exploring the Convergence and Divergence in Digital Criminality, *Asian Journal of Criminology* (2024). [DOI: 10.1007/s11417-024-09436-y](https://doi.org/10.1007/s11417-024-09436-y)

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