

Metaverse or Simulacra? Roblox, Minecraft, Meta and the turn to virtual reality for education, socialisation and work

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The Metaverse:

“a computer-generated universe that his computer is drawing” (Stephenson, 1992: p23)

“an embodied internet where you’re in the experience, not just looking at it” (Zuckerberg, 2021)

“a networked collection of inexpensive, self-configuring, immersive environments” (Jaynes et al, 2003: p115)

2021 may well turn out to be the inflection point when the use of virtual reality became widely recognised as the gateway to the metaverse. The rebranding of the world’s largest online social network from Facebook to Meta is indicative of a shift that is well underway among the generation who are at schools and university now and is accelerating in those that will engage in learning in the future. It is a turn to the virtual that is likely to play an important role in what we consider to be interactive learning environments. Why is this turn to the virtual worth thinking about? The uptake of virtual reality presents new and highly flexible opportunities for learning environments and learning experiences which mirror changes to how we socialise and work. Virtual reality may also create risks of disconnection from the authentic; a loss of reality from education, work and society, a loss which Baudrillard described as simulacra (1981).

What is virtual reality?

Virtual reality (VR) is a computer generated immersive three-dimensional visualisation with which users can interact (Pesce, 1995). VR has been in development since the 1980s and early evangelists such as Jaron Lanier long ago proposed that learning and creativity can be transformed to become more like playing musical instruments “the most creative interface” (1993). While early attempts to anticipate the uses and feel of VR may look naive and gauche in review, their tools like 3D goggles and data gloves, have gradually become adopted. The opportunities VR pioneers offered and the aspirations of the early developers have become part of what VR is now. For many involved in education Second Life was the first usable VR. Philip Rosedale, the inventor of Second Life, recalled watching demonstrations of VRML in 1994 (Newnham, 2021). VRML (Virtual Reality Modelling Language) was the first VR to operate over the internet, allowing users to “swim through web data” (Pesce, 1995; Rospigliosi, 1997).

First steps in Second Life

Second Life provided an environment in which some pioneer explorers of interactive learning engaged. It grew rapidly during the first decade of this century and was used by a significant number of users, there were claims of about a million at the height of its take-up. Many universities and schools tried their first steps in VR there. Many useful papers were

published in this journal exploring how Second Life can be used, not such as for designing immersive learning environments (De Back et al, 2021), problem based learning (Sancar-Tokmak & Dogusoy, 2020) and language learning (Parmaxi , 2020). Second Life also stimulated scholarly debate among authors at this journal about the ethical risks of learning and teaching in inauthentic and game like environment (Childs et al, 2012) but Second Life has not become the metaverse for the masses.

VR games: builders in Minecraft and Roblox

Far more widely used than Second Life are two online games, Minecraft and Roblox. Between them they have a user base of between 150 to 300 million and most of these are young and loyal, unlike most of those who tried Second Life. Both Minecraft and Roblox are sandbox games, that is they offer users a VR in which they can build and shape the environment in which they play. This is very different to the ready-made spaces of the shooting and exploring games they supersede. Minecraft is designed for younger players, who use simple blocks to build a shared world. Roblox offers a more programable environment providing the makings of a multitude of players' worlds within the game. There has not yet been much academic research around the role of Minecraft and Roblox in teaching and learning, but it is coming. An early indicator investigated Roblox and teaching sculptural heritage (Meier et al, 2020) and it seems likely that the children and young adults who are currently immersed will generate more take-up for teaching and learning. But games are likely to continue to be a niche, albeit with very many participants. Computer games and online gaming are not for everyone; however, there are internet technologies that have become near ubiquitous, these are the technologies of socialisation and work.

Meetings in the metaverse

The period of the pandemic has seen the mass adoption of technologies for virtual teamwork. Platforms like Zoom and Teams have become the new normal for colleagues to communicate, and we are collectively becoming familiar with the phenomena of choosing an on-screen representation or avatar, such as our profile picture, or as encountered by Judge Ferguson, a lawyer with a cat face filter (Zdanowicz, 2021). When Stephenson first fictionalised the metaverse he suggested "avatars... are the audio-visual bodies that people use to communicate with each other in the Metaverse" (1992: p34) and such VR bodies are on now being proposed for business meetings. Microsoft already provide a VR plugin, Mesh for Teams with enhanced avatars (using 3D glasses and data gloves). The recently renamed Meta has a beta trial underway called Horizon Workrooms which offer a range of business focused VR tools intended for fully immersive VR meetings. Drivers as disparate as reducing both carbon emissions and travel costs mean that regardless of the vicissitudes of vaccine and virus, more and more of our work meetings will be virtual. For academics the facilities for virtual conferences, lectures and classrooms are accelerating. Yet the rapid digital transformation of workplaces and learning spaces lags the more pervasive and ubiquitous take-up of the virtual for socialisation. Widespread access to smartphones have embedded online social networks as a vital part of how humans maintain social contact. Global studies such as those by Daniel Miller's ethnographic team of anthropologists have shown how *scalable sociability*, the use of social media on social networks as a way of keeping in touch with family and friends, has become a global norm in less than a decade (2016). Mark Zuckerberg, in his founder's letter suggested Meta (the product) would allow us "to be at the

office without a commute, at a concert with friends, or in your parents' living room to catch up" (2021).

Simulacra and simulations

Without submitting to a fully technological determinist resignation, it does seem inevitable that as workers, educators, learners, and social beings we will increasingly encounter VR and invitations to meet in the metaverse. As the metaverse becomes more widely accessed it offers an exciting arena for human computer interaction and computer supported collaborative work, and this journal has already started to develop a body of research exploring how VR will enable new forms of learning and teaching. But there are risks. The mass adoption of social media as the global norm for technology mediated socialisation has given us a foretaste of the surveillant possibilities of capitalism to appropriate value from users' data in the metaverse (Zuboff, 2019). The intrusive reach of targeted marketing using adaptive algorithms to personalise artificial intimacy are heightened when the context is an increasingly pervasive simulation of reality (Brooks, 2021). Comparing the student experience of learning in lockdown with an in person education there are many ways that the virtual classroom does not provide the same authentic connection between learners. The cultural theorist Baudrillard warned of the risks of mistaking the map for the territory as simulacra replace the simulated and become treated as reality (1983). The economic, environmental, and epidemiological pressures to adopt VR and enter the metaverse are enormous but they need to be treated as thoughtfully and critically as any of the interactive learning environments we explore in this community of practice.

A disclaimer: the author is an associate editor at Interactive Learning Environments and cannot speak for the collective endeavour, which this journal is. No editorial can determine any such complex issues but at best may form a small contribution to discussion about where we go from here.

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