Department	School of Computing
Supervisors	David Haynes
Project Title	Privacy and identity in the metaverse

PROJECT DESCRIPTION

One of the features of metaverse platforms is the ability to create an identity represented by an avatar. This raises issues of ownership, identity and privacy. This presents a challenge to users – how do they know who they are dealing with and what rights do they have in the metaverse? This research will investigate questions of authentication of identities, intellectual property (who owns the avatar?) and rights such as privacy and protection against online harassment. The research will consider an analysis of power structures in the metaverse and use a theoretical framework based on power relationships to understand some of the dynamics of individual rights. The research will address the following research questions:

> RQ1 Who owns the intellectual property associated with an avatar?

> RQ2 What are the risks of harassment in the metaverse?

> RQ3 How are rights to individual information privacy affected by use of avatars

> RQ4 To what extent is regulation able to address the power imbalances between individuals and platform providers in the metaverse?

The research is expected to engage with a number of different research approaches including ethnography, surveying, and risk modelling

Perspective applicants are encouraged to contact the Supervisor before submitting their applications. Applications should make it clear the project you are applying for and the name of the supervisors.

Academic qualifications
A first degree (at least a 2.1) ideally in Informatics, information science or computer law with a good fundamental knowledge of the metaverse environment.

English language requirement
IELTS score must be at least 6.5 (with not less than 6.0 in each of the four components). Other, equivalent qualifications will be accepted. Full details of the University's policy are available online.

Essential attributes:
- Experience of fundamental concepts in social science research
- Competent in research techniques such as ethnography, surveying and modelling
- Knowledge of the metaverse and experience of at least one metaverse platform
- Good written and oral communication skills
- Strong motivation, with evidence of independent research skills relevant to the project
- Good time management

Desirable attributes:
Energetic and curious intellect willing to explore strange new envrironments and to boldly go beyond the boundaries of the information science discipline

Indicative Bibliography	Baszucki, D. (2021) The Metaverse is coming, A 3D virtual world where millions meet online will become our key social hub. Available at: https://www.wired.co.uk/article/metaverse.
	Bowler, L., Knobel, C. and Mattern, E. (2014) From Cyberbullying to Well-being: a narrative-based participatory approach to values-oriented design for social media, Journal of the Association for Information Science and Technology. Available at: https://doi.org/10.1002/asi.23270.
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	Fernandez, C.B. and Hui, P. (2022) 'Life, the Metaverse and Everything: An Overview of Privacy, Ethics, and Governance in Metaverse'.
	Haynes, D., Bawden, D. and Robinson, L. (2016) 'A Regulatory Model for Personal Data on Social Networking Services in the UK', International Journal of Information Management, 36(6), pp. 872–882. doi: 10.1016/j.ijinfomgt.2016.05.012.
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	Ladeur, K.-H. (2013) 'New institutions for the protection of privacy and personal dignity in internet communication – "information broker", "private cyber courts" and network of contracts', Revista Brasileira de Políticas Públicas, 3(2), pp. 282–296. Available at: 10.5102/rbpp.v3i2.2531.
	Leenes, R. (2012) 'Privacy Regulation in the Metaverse', pp. 557–570.
	Lessig, L. (2006) Code. 2nd edn. New York; London: BasicBooks. Available at: http://codev2.cc/download+remix/Lessig-Codev2.pdf (Accessed: 2 June 2015).
	Mann, B.L. (2009) 'Social Networking Websites: a concatenation of impersonation, denigration, sexual agressive solicitation, cyber-bullying or happy snapping videos', International Journal of Law and Information Technology, 17(3), pp. 252–264.
	Nissenbaum, H.F. (2010) Privacy in Context : technology, policy, and the integrity of social life. Stanford CA: Stanford Law Books.
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	Wang, Y. et al. (2022) 'A Survey on Metaverse: Fundamentals, Security, and Privacy'.

Warren, S.D. and Brandeis, L.D. (1890) 'The Right to Privacy', Harvard Law Review, 4(5), pp. 193–220.

Westin, A.F. (2003) 'Social and Political Dimensions of Privacy', Journal of Social Issues, 59(2), pp. 431–453. Available at: https://doi.org/10.1111/1540-4560.00072.

Zhao, R. et al. (2022) 'Metaverse: Security and Privacy Concerns'.

Zuboff, S. (2019) The Age of Surveillance Capitalism: the fight for a human future at the new frontier of power. London: Profile Books.

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Web page	https://www.napier.ac.uk/research-and-innovation/research-degrees/application-process