Department	School of Computing
Supervisors	David Haynes & Peter Cruickshank
Project Title	Online Safety and Digital Literacy

PROJECT DESCRIPTION

The continuing threat of cyber-attacks and data breaches highlights a major safety and information governance issue for employers. Working from home has a significant impact on resilience and inclusivity, because formal controls cannot be as easily enforced outside the office environment. Human factors such as digital literacy will play an important role protecting privacy and security in the workplace.

This research will evaluate privacy and security risks faced by employees when working from home. It will investigate employers' and employees' attitudes to privacy and security issues, through a digital literacy lens. The objectives are to develop a better understanding of the role of digital literacy in privacy and security in the workplace, and to devise more effective interventions for working from home to protect privacy and security. The project takes a participative approach with employers and policy-makers involved in setting up consultations and providing feedback on proposed measures to improve the safety of employers, employees and the wider public.

Some sectors have been slow to adopt new practices, such as working from home. This study maps the current digital security and privacy environment to identify gaps in digital literacy of employees working from home, and to develop a risk ontology that incorporates the perspectives of individuals and organizations on risk, digital literacy and information security. The outcomes will be a framework for enhancing the digital literacy of individuals working from home, and a new model of digital literacy, privacy risk and information security.

RQ1 How aware are employees about the privacy and security implications of working from home?

RQ2 What are the ongoing privacy and security training needs of public sector employees working from home?

RQ3 How are employers adapting to the privacy and security training needs of their employees working from home?

RQ4 How can privacy and security risks of working from home be modelled from a digital literacy perspective?

The research will be conducted within the Centre for Social Informatics where the PhD candidate will join a lively and supportive community of researchers. The Centre's subject group was highly rated in the recent REF2021 assessment exercise, with a very strong research environment. We have excellent international links and a good track record of working collaboratively with partners in the UK and around the world.

Prospective applicants are encouraged to contact David Haynes (<u>d.haynes@napier.ac.uk</u>) 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 Click here to enter text, with a good fundamental knowledge of

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. <u>Full details of the University's policy</u> are available online.

Essential attributes:

- Experience of fundamental social science or information science research
- Competent in survey techniques and statistical tools
- Knowledge of information privacy and online safety issues
- Good written and oral communication skills
- Strong motivation, with evidence of independent research skills relevant to the project
- Good time management

Desirable attributes:

Enthusiastic and energetic approach to research problems
Resilience and willingness to try different approaches when the planned work does not turn out as expected. Persistence in seeking sources of data.

Indicative Bibliography

Cruickshank, P., Hall, H. and Ryan, B. (2020) 'Information literacy as a joint competence shaped by everyday life and workplace roles amongst Scottish community councillors', Information Research, 25(4), p. paper isic2008. doi: 10.47989/irisic2008.

DCMS (2022). Cyber Security Breaches Survey 2022. Digital Culture Media & Sports. https://www.gov.uk/government/statistics/cyber-security-breaches-survey-2022 (Accessed: 16 November 2022)

European Commission Science Hub (2021) DigComp website. Available at: https://ec.europa.eu/jrc/en/digcomp (Accessed: 7 June 2021).

Haynes, D. (2019) 'Creating an Ontology of Risk: a human-mediated process', in Haynes, D. and Vernau, J. (eds) The Human Position in an Artificial World: creativity, ethics and AI in knowledge organization. ISKO UK Sixth Biennial Conference London 15-16th July 2019. Baden-Baden: Ergon Verlag GmbH, pp. 167–180.

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.

Julien, H. (2018) 'Digital Literacy in Theory and Practice', Encyclopedia of Information Science and Technology. 4th edn. Edited by M. Khosrow-Pour. IGI Global.

	Widén, G. et al. (2021) 'Workplace information literacy: Measures and methodological challenges', Journal of Information Literacy, 15(2), pp. 26–44. doi: 10.11645/15.2.2812.
Enquiries	For informal enquiries about this PhD project, please contact please contact Dr David Haynes: d.haynes@napier.ac.uk
Web page	https://www.napier.ac.uk/research-and-innovation/research- degrees/application-process