Jisc

Building digital capability: Example researcher profile

This is a version of the Jisc 'Six Elements of Digital Capabilities' model, specifically for research students and research staff. It is an update on the earlier '7 elements of digital literacy' model (2009) and has many continuities with this framework. It is one *example* of how the base model is being used.

ICT proficiency		Use ICT-based devices, applications, software and services as required for research; use basic productivity software, web browser, and writing/presentation software; use digital capture devices such as a camera, audio recorder; use required institutional systems. Use ICT applications to support productivity and efficiency in the research process e.g. through time, task and project management. Work fluently across devices and applications to achieve complex tasks. At higher levels, choose, adapt and personalise ICT applications and systems; critically assess the benefits/constraints of ICT applications for specific research activities; recover from failures; stay up to date with ICT as it evolves and adopt new systems, applications and approaches into scholarly practice.
Information, data and media literacy (critical use)	**Information literacy**	Find, evaluate, manage, curate, organise and share digital content for research and scholarship. Undertake secondary research/literature reviews by searching a range of databases, journals, indexes, portals, digital archives, including grey literatures and open data, as appropriate. Critically assess digital content sources and services for their relevance, accuracy and scholarly value. Act within the rules of copyright and intellectual property. Understand the use and value of open alternatives such as creative commons. Reference and acknowledge the work of other scholars in whatever medium it is communicated. At higher levels: develop a personal research information environment.
	Data literacy	Collate, manage, access and use digital data in spreadsheets, databases, archives, corpora and other formats, including open data as appropriate. Run appropriate analyses and reports. Record research-related data in digital systems as required. Ensure data security; follow general and local guidelines on research ethics and apply to the relevant ethical bodies for permission to collate and use research data; follow legal and security guidelines in data collection and use.
	Media literacy	Critically read and interpret scholarly messages in a range of digital media – text, graphical, video, animation and simulation, audio, data visualisations, presentations, wiki/blog articles. Choose and use media resources to express scholarly ideas with an awareness of design, audience, impact. Act within digital copyright laws. Understand the use and value of open alternatives such as creative commons. Reference and acknowledge the work of other scholars in whatever medium it is communicated.

Digital creation, innovation and scholarship (creative production)	**Digital creation**	Use a range of digital media – text, images, video, audio, visualisations, infographics, presentations, podcasts and screencasts, blogs and web posts – to communicate research findings and scholarly ideas. Create other digital artefacts according to the subject of scholarship and the needs of stakeholders.
	Digital innovation	Develop new research questions, hypotheses and explanations and explore new approaches relevant to the digital age. At higher levels, develop new research methods and practices with digital technology; identify digital challenges and opportunities in a field of scholarship; lead research teams, centres and departments in new directions in response to digital risks and opportunities.
	Digital research and scholarship	Collect research data securely and responsibly using digital methods where appropriate e.g. online surveys, data capture tools, video and audio recording, social and sharing media. Analyse data using qualitative and quantitative tools suitable to the research field and questions. Use the outcomes of analysis to answer questions, validate/invalidate hypotheses, solve problems, develop new lines of enquiry. Publish in digital formats. Present in digital formats. Be aware of how digital technologies are changing the field and subject area with respect to: content, method, theories and values. Explore and critique new tools, methods and ideas. At higher levels: share research data and findings openly, involve the public in digital research and scholarship, repurpose/reuse open data where appropriate; investigate the impacts of digital technology; link digital research to digital teaching opportunities.
Digital communication, collaboration and participation (participating)	**Digital communication**	Communicate research and scholarship in a variety of digital media (e.g. text, email, skype, chat, social media, blog posts, presentations). Design digital communications for a range of scholarly networks, purposes and audiences, and for other stakeholders. Communicate respectfully across boundaries of nationality, culture, research area and theoretical stance.
	Digital collaboration	Participate in research teams using virtual environments and tools e.g. project management tools, shared calendars and tasks lists. Produce scholarly outputs using digital collaboration tools. At higher levels: build research partnerships, develop collaborative bids and project processes using digital collaboration tools.
	Digital participation	Participate in, facilitate and build digital networks around scholarly issues and concerns. Create positive connections with researchers in your own and other fields. Share and amplify messages across networks; share links and resources. Behave safely and ethically in networking situations.
Digital learning and personal/professional development (learning)		Use reference management, bookmarking, collation and other study tools effectively to support the research process. Undertake personal development as a scholar/researcher using online opportunities and resources. Use digital tools to record events in the research process for planning, reflection and review. Establish links between digital research and teaching in the subject area.

Digital identity and wellbeing (self-actualising)	Digital identity management	Develop and project a positive digital identity or identities as a researcher. Promote the values of scholarship in digital settings: knowledge sharing; open peer review; acknowledging the work of others; integrity; transparency, critique; respectful argument; trusted methods; innovative thinking; working at and across boundaries. Manage CV and publications record; collate and curate scholarly materials across digital networks and platforms. Engage in open scholarship.
	Digital wellbeing	Look after your personal health, safety, relationships and work-life balance in relation to digital technology use, and support others to do this in your research area and team. Act with respect for the health of others and of the natural environment when using digital technologies in the research process.

Digital capabilities: the six elements

Information, data and media literacies

Digital creation, innovation and scholarship

ICT proficiency

Digital identity and wellbeing

Digital learning and self development

Communication, collaboration and participation