

Building digital capabilities: The six elements defined

Using this framework

The framework has most often been used by digital leaders and staff with an overall responsibility for developing digital capability in their organisation. However, it can be used by staff in any role and by students in any educational setting. Uses of the framework include:

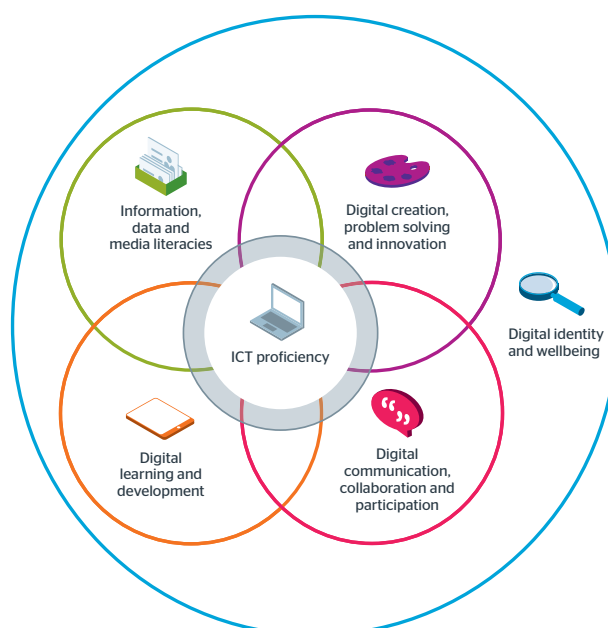
- » To support discussion and build consensus about the capabilities required in a digital organisation, perhaps in order to develop a local framework or a locally adapted version of this framework
 - » To plan or review staff/educational development, for example ensuring that framework elements are included in professional development activities for teaching staff
 - » To plan or review a curriculum, though note that this generic model will need to be adapted carefully to the demands of the subject area and course outcome
- One approach has been to produce each element as

a prompt card with ideas for digital activities on the reverse. Another has been to encourage staff and students in a faculty or school to devise their own version of the framework for use in the curriculum

- » To structure and signpost development opportunities, for example developing playlists of digital content mapped to the framework, or signposting a workshop programme
- » To design digital badges and award them to staff and/or students undertaking certain development activities or demonstrating certain practices
- » To map digital expertise across different staff roles within a team, department, or the organisation as a whole, identifying gaps and recognising where digital expertise adds value

For more information on all related resources please see the **Building digital capability project page** (<http://ji.sc/building-digicap>)

Digital capabilities: The six elements



ICT proficiency (Functional skills)	
ICT proficiency	<p>The use of ICT-based devices, applications, software and services. The confident adoption of new devices, applications, software and services and the capacity to stay up to date with ICT as it evolves. The capacity to deal with problems and failures of ICT when they occur, and to design and implement ICT solutions.</p> <p>An understanding of basic concepts in computing, coding, and information processing.</p>
ICT productivity	<p>The use of ICT-based tools to carry out tasks effectively, productively, and with attention to quality. The capacity to choose devices, applications, software and systems relevant to different tasks, having assessed their benefits and constraints; to adopt and where necessary adapt digital tools to personal requirements such as accessibility.</p> <p>The capacity to work fluently across a range of tools, platforms and applications to achieve complex tasks.</p> <p>An understanding of how digital technology is changing practices at work, at home, in social and in public life.</p>
Information, data and media literacies (Critical use)	
Information literacy	<p>The capacity to find, evaluate, manage, curate, organise and share digital information. The capacity to interpret digital information for academic and professional/vocational purposes, and to review, analyse and re-present digital information in different settings. A critical approach to evaluating information in terms of its provenance, relevance, value and credibility.</p> <p>An understanding of the rules of copyright and open alternatives eg creative commons; the ability to reference digital works appropriately in different contexts.</p>
Data literacy	<p>The capacity to collate, manage, access and use digital data in spreadsheets, databases and other formats, and to interpret data by running queries, data analyses and reports. The practices of personal data security.</p> <p>An understanding of how data is used in professional and public life; of legal, ethical and security guidelines in data collection and use; of the nature of algorithms; and of how personal data may be collected and used.</p>
Media literacy	<p>The capacity to critically receive and respond to messages in a range of digital media - text, graphical, video, animation, audio - and to curate, re-edit and repurpose media, giving due recognition to originators. A critical approach to evaluating media messages in terms of their provenance and purpose.</p> <p>An understanding of digital media as a social, political and educational tool, and of digital media production as a technical practice.</p>
Digital creation, problem solving and innovation (Creative production)	
Digital creation	<p>The capacity to design and/or create new digital artefacts and materials such as digital writing; digital imaging; digital audio and video, digital code, apps and interfaces, web pages.</p> <p>An understanding of the digital production process, and basics of editing and coding.</p>
Digital research and problem-solving	<p>The capacity to use digital evidence to solve problems and answer questions, to collect and collate new evidence, to evaluate the quality and value of evidence, and to share evidence and findings using digital methods.</p> <p>An understanding of digital research methods; an understanding of different data analysis tools and techniques.</p>
Digital innovation	<p>The capacity to adopt and develop new practices with digital technology in different settings (personal and organisational; social and work-based); to use digital technologies in developing new ideas, projects and opportunities.</p> <p>An understanding of innovation, enterprise and project management in digital settings.</p>

Digital communication, collaboration and participation (Participation)	
Digital communication	<p>The capacity to communicate effectively in digital media and spaces such as text-based forums, online video and audio, and social media; to design digital communications for different purposes and audiences; to respect others in public communications; to maintain privacy in private communications; to identify and deal with false or damaging digital communications.</p> <p>An understanding of the features of different digital media for communication, and of the varieties of communication norms and needs.</p>
Digital collaboration	<p>The capacity to participate in digital teams and working groups; to collaborate effectively using shared digital tools and media; to produce shared materials; to use shared productivity tools; to work effectively across cultural, social and linguistic boundaries.</p> <p>An understanding of the features of different digital tools for collaboration, and of the varieties of cultural and other norms for working together.</p>
Digital participation	<p>The capacity to participate in, facilitate and build digital networks; to participate in social and cultural life using digital media and services; to create positive connections and build contacts; to share and amplify messages across networks; to behave safely and ethically in networked environments.</p> <p>An understanding of how digital media and networks influence social behaviour.</p>
Digital learning and development (Development)	
Digital learning	<p>The capacity to participate in and benefit from digital learning opportunities; to identify and use digital learning resources; to participate in learning dialogues via digital media; to use learning apps and services (personal or organisational); to use digital tools to organise, plan and reflect on learning; to record learning events/data and use them for self-analysis, reflection and showcasing of achievement; to monitor own progress; to participate in digital assessment and receive digital feedback; to manage own time and tasks, attention and motivation to learn in digital settings.</p> <p>An understanding of the opportunities and challenges involved in learning online; an understanding of own needs and preferences as a digital learner (eg access, media, platform and pedagogy).</p>
Digital teaching	<p>The capacity to support and develop others in digitally-rich settings, to teach, to work in a teaching or curriculum team, to design learning opportunities, to support and facilitate learning, to be pro-active in peer learning, all while making effective use of the available digital tools and resources.</p> <p>An understanding of the educational value of different media for teaching, learning and assessment; an understanding of different educational approaches and their application in digitally-rich settings.</p>
Digital identity and wellbeing (Self-actualising)	
Digital identity management	<p>The capacity to develop and project a positive digital identity or identities and to manage digital reputation (personal or organisational) across a range of platforms; to build and maintain digital profiles and other identity assets such as records of achievement; to review the impact of online activity; to collate and curate personal materials across digital networks.</p> <p>An understanding of the reputational benefits and risks involved in digital participation.</p>
Digital wellbeing	<p>The capacity to look after personal health, safety, relationships and work-life balance in digital settings; to use digital tools in pursuit of personal goals (eg health and fitness) and to participate in social and community activities; to act safely and responsibly in digital environments; to negotiate and resolve conflict; to manage digital workload, overload and distraction; to act with concern for the human and natural environment when using digital tools.</p> <p>An understanding of the benefits and risks of digital participation in relation to health and wellbeing outcomes.</p>