THE UNIVERSITY of ADELAIDE

Digital Capabilities @ Adelaide

# Developing Digitally Capable Graduates

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# Digital Capabilities at the University of Adelaide

Digital capabilities are more than an aptitude to use a set of digital tools. They are a key to students' success in the current fast-moving digital environment for learning, research and professional activity, and to students' long-term employability as graduates of the University of Adelaide.

> "Those capabilities which fit someone for living, learning and working in a digital society."
>
> *Jisc, 2015

Digital capability is not about check-lists of devices and applications. A digitally capable person is:

- Competent in areas such as digital design and data analysis, and digital information searching and sharing
- Confident to adopt new tools and approaches
- Creative, flexible, reflexive and critical in a digital world

Digital capabilities are as important for educators, and for other staff who support student learning and research, as they are for students.

But digital capability is not about a one-size-fits-all model. There are differences between academic disciplines, levels of study, and staff roles. Digital capability includes a complex set of elements and takes different forms in different people.

# The Framework

The Adelaide Digital Capabilities Framework comprises a student profile and a staff profile. It has been adapted from work by the Jisc (UK).*

The Framework is indicative, and can be contextualised for different uses and revised periodically. It is not dependent on a particular set of software programs. It is a flexible tool highlighting key areas of capability.

# Student Profile

The student profile is intended to assist the development of students' digital capabilities in a progression through the levels of study.

It can be used by:

- Program and course teams wishing to develop their own versions. An academic team can use the profile directly to identify suitable learning outcomes, assessments and activities, aligned to the University's Graduate Attributes
- Learning designers and other professional staff whose roles support curriculum design and development, use of technology, and learning and teaching innovation
- Students wishing to develop their digital capabilities through personal extra-curricular activities, and who have roles in supporting learning and teaching development at The University

# Student Profile

A digitally capable University of Adelaide graduate will be able to...

## ICT Proficiency and Productivity

CAPABILITIES

| | |
|---|---|
| **Proficiency** | > Use ICT-based devices, applications, software and services<br>> Use basic productivity software, use email and other digital communication<br>> Use a wide range of digital apps, services and be comfortable with different platforms<br>> Develop the capacity to deal with ICT failures and find work-arounds when things go wrong<br>> Keep digital devices safe from malware; manage security and privacy settings in digital services<br>> Show understanding of basic concepts in computing, coding (specific to subject area) |
| **Productivity** | > Download/upload files to cloud spaces/Internet etc. Organise, manage and back up digital files<br>> Choose relevant software/apps and services for the subject of study<br>> Use digital tools to make learning more efficient (e.g. calendars, task lists) |

## Digital Learning and Development

CAPABILITIES

| | |
|---|---|
| **Learning (Self Development)** | > Identify and participate in digital learning opportunities (e.g. online course, podcasts)<br>> Identify and use digital learning resources (e.g. quizzes, online tutorials, simulations)<br>> Use learning apps to organise, plan and reflect on learning (e.g. mind mapping)<br>> Use time management tools and participate in digital assessments |

## Digital Creation, Problem Solving and Innovation

CAPABILITIES

| | |
|---|---|
| **Digital Creation** | > Capture, edit and produce digital media (e.g. video and audio)<br>> Design and share new digital artefacts and materials (e.g. infographics, digital stories)<br>> Design digital games, code and design apps (subject specific) |
| **Digital Research and Problem Solving** | > Design and administer online surveys<br>> Collect and analyse data using digital tools and techniques, interpret findings<br>> Access and use data sets relevant to the subject area and generate new questions |
| **Digital Innovation** | > Use digital technologies to develop new ideas, projects and opportunities<br>> Promote new digital tools and opportunities to others |

## Collaboration, Communication, and Participation

CAPABILITIES

| | |
|---|---|
| **Digital Collaboration** | > Use collaborative tools (e.g. file sharing, shared writing tools, project management tools)<br>> Collaborate in digital teams, groups and projects to produce shared outcomes<br>> Participate in collaborative online environments (e.g. webinars) |
| **Digital Communication** | > Participate in a range of digital communication media (e.g. email, twitter, online forums)<br>> Respect the different norms of communicating in different spaces (e.g. personal, social, academic) |
| **Digital Participation** | > Participate actively in discussion forums, post reviews, 'likes' on sites<br>> Share digital resources (e.g. links, images, presentations) on University or other digital sites<br>> Participate in a range of online and social media networks<br>> Build networks and collaborative opportunities |

## Digital Identity and Wellbeing

CAPABILITIES

| | |
|---|---|
| **Digital Identity Management** | > Maintain a current digital CV or portfolio of work, and manage a professional digital profile<br>> Critically assess how personal data is collected and used and use privacy settings appropriately<br>> Identify and deal with false or damaging digital communications |
| **Digital Wellbeing** | > Recognise that digital information can cause overload and stress, and disconnect when necessary<br>> Act positively against cyberbullying and other damaging online behaviours |

## Information, Media, and Data Literacy

CAPABILITIES

| | |
|---|---|
| **Information Literacy** | > Find relevant digital information using search engines (e.g. scholarly journals and the web)<br>> Organise and manage digital information using bookmarks, reference management software<br>> Judge whether digital information is trustworthy and relevant<br>> Use curation tools to manage digital information and bring information together in new ways<br>> Know and follow the rules of copyright; understand and avoid plagiarism<br>> Use copyright alternatives such as creative commons and use appropriate referencing |
| **Media Literacy** | > Curate, re-edit and repurpose media, giving due recognition to originators<br>> Share and distribute digital media for others to access<br>> Critically receive and respond to messages in a range of digital media (e.g. video, animation)<br>> Critically assess digital messages and artefacts in terms of their provenance and purpose |
| **Data Literacy** | > Collate, manage and use digital data in spreadsheets and other media<br>> Understand how to interpret data relevant to the subject of study<br>> Analyse data in databases and spreadsheets by running queries, data analyses and reports |

# Staff Profile

The staff profile offers a point of reference for academic and professional staff, who have roles as educators and in supporting learning and teaching, to guide their own professional learning and development.

It can be used:

- By staff to review their professional development needs, for example in the context of Peer Review of Teaching; Planning, Development and Review; and seeking professional recognition
- In the design of Induction and Continuing Professional Development programs, and in the development of professional learning resources and activities
- To map digital expertise across different staff roles in learning, teaching, and learning and research support, identifying gaps and where digital expertise adds value

# Staff Profile (teaching and teaching support)

A digitally capable University of Adelaide staff member will be able to...

## ICT Proficiency and Productivity

CAPABILITIES

| | |
|---|---|
| **Proficiency** | > Use ICT-based devices, applications, software and services<br>> Use basic productivity software, web browser, and writing/presentation software<br>> Use digital capture devices such as a camera<br>> Use subject-specialist ICT devices and applications confidently<br>> Stay up to date with ICT as it evolves; adopt new devices, applications<br>> Recover from failures; find short-cuts and work-arounds in digital systems<br>> Understand basic concepts in computing, coding, and information processing (specific to role) |
| **Productivity** | > Download/upload files to cloud spaces/Internet and manage and back up digital files<br>> Use digital tools to work productively and fluently (e.g. calendars, project management apps)<br>> Use and adapt University systems for teaching and assessment and to support students' learning |

## Digital Learning and Development

CAPABILITIES

| | |
|---|---|
| **Digital Learning and CPD** | > Use digital networks and resources to identify opportunities for professional development<br>> Use learning apps and services to plan and reflect on learning (e.g. mind mapping) |
| **Digital Teaching Practices** | > Design and plan digital learning and assessment activities within courses of study<br>> Adapt teaching in response to feedback from students collected or facilitated digitally<br>> Facilitate learning in digital settings (e.g. online, blended, technology-rich classrooms)<br>> Use digital technologies to support in-class learning (e.g. polling tools, digital presentation)<br>> Develop and adapt digital learning resources according to students' needs<br>> Guide students to use their own digital devices |

## Digital Creation, Problem Solving and Innovation

CAPABILITIES

| | |
|---|---|
| **Digital Creation** | > Capture, edit and produce digital media (e.g. video and audio)<br>> Design and share new digital artefacts and materials (e.g. infographics, digital stories)<br>> Design quizzes, polls and other digital activities for learning (dependent on staff role) |
| **Digital Research and Problem Solving** | > Design and administer online surveys<br>> Make decisions and solve problems based on digital evidence<br>> Collect and analyse data using digital tools and techniques, interpret findings |
| **Digital Innovation** | > Investigate and implement new digital approaches to learning, teaching and assessment<br>> Promote new digital tools and opportunities to others |

## Collaboration, Communication, and Participation

CAPABILITIES

| | |
|---|---|
| **Digital Collaboration** | > Use collaborative tools (e.g. file sharing, shared writing tools, project management tools)<br>> Participate in digital teams and working groups e.g. curriculum review<br>> Support students to collaborate using shared tools and media |
| **Digital Communication** | > Use digital communications when supporting students' learning (e.g. online lectures, email)<br>> Respect the different norms of communicating in different spaces (e.g. personal, academic) |
| **Digital Participation** | > Share learning and teaching resources on digital sites<br>> Participate, facilitate and build digital networks with other staff and students when applicable<br>> Be aware of how digital networks influence social behaviour |

## Digital Identity and Wellbeing

CAPABILITIES

| | |
|---|---|
| **Digital Identity Management** | > Record learning events/data and use them for self-analysis, (e.g. e-portfolio)<br>> Develop and project a positive digital identity and manage digital reputation |
| **Digital Wellbeing** | > Recognise that digital information can cause overload and disconnect when necessary<br>> Participate in digital safety and cyber-bullying initiatives |

## Information, Media, and Data Literacy

CAPABILITIES

| | |
|---|---|
| **Information Literacy** | > Find, evaluate, manage, curate, organise and share digital content for learning, teaching and assessment<br>> Organise incoming information using filters, advanced searches<br>> Interpret digital information for academic and professional/vocational purposes<br>> Critically assess digital information for its provenance, value, credibility, and relevance<br>> Know the rules of copyright and plagiarism and alternatives such as creative commons |
| **Media Literacy** | > Curate, re-edit and repurpose media giving due recognition to originators<br>> Critically read and interpret messages in a range of digital media (e.g. graphical, video) |
| **Data Literacy** | > Collate, manage, access, use and interpret digital data in spreadsheets and other media<br>> Analyse data in databases and spreadsheets by running queries, data analyses and reports<br>> Know how algorithms in data analysis work (subject to discipline)<br>> Follow appropriate ethical, legal and security guidelines when using data |

# Acknowledgements

*The Framework has been adapted from the Jisc (UK) Digital Capabilities: the Six Elements (Jisc/Beetham 2017)
**http://bit.ly/2ogfLXc**

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