

Guide to Developing Student Digital Literacy Skills

Defining digital literacy



This is a Word Cloud generated from the ‘**What is digital literacy?**’ section of the *Foundation Skills for Your Future Digital Framework* (McLean, et al, 2020).

This Framework complements the *Australian Core Skills Framework* (McLean, et al, 2012) (ACSF) and *ACSF Pre-Level 1* (McLean, et al, 2017), and covers ACSF Levels Pre-Level 1 to Level 3.

This section explains what is digital literacy and why digital literacy is important.

It also talks about digital literacy being on a continuum within varying degrees of competency needed, and that the term ‘digitally literacy’ will change over time due to rapid changes in digital devices and software.

Put simply, ***Digital literacy is the skills needed to operate digital devices and software (including apps).***

These skills include being able to:

- Search and navigate
- Create, communicate and collaborate
- Think critically and analyse information (aka Problem solve, (Vuorikiari et al, 2013))
- Address safety and wellbeing

All while using a variety of digital technologies.

Why develop students’ digital literacy skills?

One very obvious reason why students need to develop their digital literacy skills is because some many industries are being significantly disrupted, from health care, to logistics to

construction, to name but a few (Singla, N.D.).

This means that students need to have good digital literacy to function in all industries.

COVID-19 has also impacted the need for good digital literacy, as more businesses have pivoted online and/or to remote working arrangements which has increased the use of digital technologies significantly.

Another reason why students need to have good digital literacy is because digital literacy is a **transversal competence** which means that if students have good digital literacy skills they are able to more easily acquire other skills (Ferrari, 2013).

This means that digital literacy is the key which opens many other doors.

Preparing to implement digital literacy development activities

Just like working out a unit's language, literacy and numeracy (LLN) skills to determine what LLN need to be developed, when preparing to implement digital literacy development activities, you need to determine the unit's digital literacy skills.



You then need to find out what your students' digital literacy skills are like. You can get this information based on previous experience for different cohorts of learners or from trainers who have trained this unit before you.

The gap between the unit's digital literacy skills and the learner cohort's digital literacy is where you need to focus on or get support for students.

Remember: *Digital literacy is the skills needed to operate digital devices and software (including apps).*

The first step in preparing to implement digital literacy development activities is to determine:

1. what digital devices or software will a student need to use?, then
2. which skills will they need to use them?

For example, HLTINF001 Comply with infection prevention and control policies and procedures, has two Performance Criteria (PC) require a student to use digital devices / software:

- *Find policies & procedures on Intranet (PC 1.1)*– which will require a student to search and navigate an organisational intranet or similar (eg Sharepoint)
- *Use word processing software / risk management software (PC 2.4)*- which will require a student to use Word processing templates or similar (eg editable PDF) and/or risk

management software. They may also need to work with other people to complete this work.

HLTINF001 - Comply with infection prevention and control policies and procedures

1.1 Follow hand hygiene practices in accordance with organisations policies and procedures

Find policies & procedures on Intranet

Use word processing software / risk management software

2.4 Document and report activities and tasks that put self, clients, visitors and/or other workers at risk

Unit's digital skills	Digital literacy skills	
Find policies & procedures on Intranet	Search and navigate	Problem solving Addressing safety and well being
Use word processing software / risk management software	Create, communicate and collaborate	
Remaining current in infection control measures (Knowledge evidence)	Search and navigate	

These activities will require a student to:

- Problem solve
- Ensure they are operating their digital device safely in terms of logging into the organisation's digital system and their own personal well-being in terms of how they are operating the digital system

Students also need to know a lot about infection control. This information is constantly changing, so students also need to know how to stay up informed and up-to-date with infection control measures.

Strategies for developing specific digital literacy skills

To determine the strategies needed for developing digital literacy skills in *HLTINF001 Comply with infection prevention and control policies and procedures*, you first need to use the *Digital Literacy Skills Framework's - Indicators* (McLean, et al 2020), you can determine at which level this unit sits for:

- .12 Active awareness of self as a digital user
- .13 Knowledge, use and application of digital literacy skills

If we assume that the students undertaking this unit are entry level to the workforce, then they should be functioning at least at Level 2.

HLTINF001 - Comply with infection prevention and control policies and procedures

Core Skill	Indicator Number	Description
Numeracy	.09	Identifying mathematical information and meaning in activities and texts
Numeracy	.10	Using and applying mathematical knowledge and problem solving processes
Numeracy	.11	Communicating and representing mathematics
Digital Literacy	.12	Active awareness of self as a digital user
Digital Literacy	.13	Knowledge, use and application of digital literacy skills

Entry level employees

McLean, P. Oldfield, J. & Stephens, A. 2020. Foundation Skills for Your Future Digital Framework, Commonwealth of Australia, <https://www.dese.gov.au/uncategorised/resources/digital-literacy-skills-framework>

Table 3: Digital Literacy Indicators by level

Level	Indicator	Description
2	.12	Demonstrates an understanding of self as a digital user in familiar contexts
2	.13	Applies a limited range of strategies to manage digital devices and software in familiar contexts

Now, you can look at the Performance features for Level 2, Indicators 2.12 & 2.13.

HLTINF001 - Comply with infection prevention and control policies and procedures

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Focus area	Performance features include
Create, communicate and collaborate	<ul style="list-style-type: none"> Connects and collaborates with others using a variety of digital devices and software to transact and communicate Understands an increasing range of uses of the internet for activities and transactions Understands and applies a limited number of digital netiquette conventions Initiates, maintains and ends online communications
Digital identity and safety	<ul style="list-style-type: none"> Begins to demonstrate some insight when sharing information over the internet Understands the importance of secure information and privacy Takes some personal responsibility for identifying and managing risk factors Ensures security protection software is downloaded and updated Selects appropriate audience for communication

For 2.12 Demonstrates an understanding of self as a digital user in familiar contexts, strategies might include students:

- Using an LMS and other software (Office 365) using their student login details
- Searching on the internet for Risk analysis information
- Completing Hazard/Risk templates using a word processor or app
- Sending and answering emails using appropriate business communication conventions
- Work with others to develop online collaborative documents
- Discussing and applying confidentiality principles via an online group or forum
- Ensuring digital devices are locked or logged off

HLTINF001 - Comply with infection prevention and control policies and procedures

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Focus area	Performance features include
Digital technologies and systems	<ul style="list-style-type: none"> Identifies common digital systems to complete familiar tasks Understands some general design and operating principles of digital devices and systems Demonstrates familiarity with the layout conventions of websites and electronic documents Identifies appropriate digital system to use to seek immediate information
Access, organise, present and problem solve	<ul style="list-style-type: none"> Uses a limited number of software packages Uses search engines effectively Ensures operating system is current and updated Uses a limited range of digital peripherals Uses common symbols and terminology associated with the digital world Uses familiar data management systems Uses familiar digital systems and devices to access, organise and display information

For 2.13 Applies a limited range of strategies to manage digital devices and applications in familiar contexts, strategies might include students:

- Searching their LMS course to find example policies and procedures
- Group discussions about where to find policies and procedures, relevant templates via an online group or forum
- Saving their work using appropriate naming conventions
- Investigate and present information about online risk management systems
- Use their mobile phones to take photos of hazards and uploading them to an online space (acting as a mock risk management system)
- Access databases and spreadsheets for information to support their hazard identification

Strategies for developing generic students' digital literacy skills

Here are some generic activities you can use to develop your students' digital literacy skills:

Generic digital literacy skills	Activities for developing generic digital literacy skills
Search and navigate	<ul style="list-style-type: none"> • Search and navigate internet for theory or industry information • Search and navigate LMS course to find course materials / assessments • Search and navigate databases for industry or other information
Create digital files and forms	<ul style="list-style-type: none"> • Create Word documents, presentation files, spreadsheets etc • Use correct naming and filing conventions • Take and edit photos / videos
Communicate online	<ul style="list-style-type: none"> • Post internet search results to a forum • Send group emails of internet search results • Participate in online group discussions / instant messaging

Collaborate online	<ul style="list-style-type: none"> ● Collate internet search results into an online collaborative file (eg Word 365) ● Meet using webinar rooms like (eg Zoom) ● Use and update project management programs (eg Slack)
Problem solve using digital devices / software	<ul style="list-style-type: none"> ● Use different web browsers (eg Chrome vs Firefox etc) if a website is not working ● Experiment with the different features when using different devices, apps, software ● Using 'Help' options on device, app, software

Ways to guide and let go - Moving from teacher-centred to learning centred

Teacher-centred

In order to truly embed the development of digital literacy skills is to move from a traditional training approach, which is usually teacher led, where the teacher determines what is learned, as well as when and how this happens. This is considered to be Teacher Centred – where the teacher is the 'Sage on the stage' eg either standing at the front of the room or doing most of the talking, even online.

This model can also be supported using a Learning Management System (LMS), where students can access content, interact online via discussion forums and online quizzes, and submit assessment work.

Learner-centred

A more modern training model has been to be more 'learner centred', where learners are supported to determine what they need to learn, and how/when they will do this learning. This enables the learner to develop 'learning how to learn' skills and their digital literacy skills. The teacher becomes the facilitator, guiding, supporting and motivating the student to ensure they achieve the learning outcomes.

This model can be supported through extending when and how the learner learns through online interactions between training sessions, either with the whole class or in small groups. A personal online space, such as OneDrive and Office 365, also enables the learner to have their own personal learning space which they control and curate their learning evidence.

Learning-centred

Learning centred moves closer to the 'independent learner' model which flips the control of the learning more towards the learner than the teacher. Here the teacher is now the 'guide on the side', coordinating the resources that the learner identifies that they need for their action-based learning activities.

For this model, the learner will utilise content, resources and networks beyond the organisation online spaces, through online environments like LinkedIn, Facebook and Pinterest. Students may also publish some of their work online so it is publicly available through a personal website like WordPress or Instagram.

Learning spaces

For nearly a decade, educational institutions have been reconsidering how they design and present their Learning spaces, moving from a design where the teacher takes centre stage, to where the teacher is the guide on the side is in among the learners.

The need for a range of digital technologies changes to having interactive whiteboards, computer 'hot desks', BYO devices, in-built responsive webcams, microphones and speakers.

Action-based learning

The types of learning activities also need to change from passive learning activities like reading and listening, to action-based learning, where students are actually applying what they are learning.

Research (Dale, 1969) shows that when people are active in their learning, they are much more likely to remember what they have learned.

- Action or Active Learning include:
- Working on real problems/tasks
- Creating real outputs
- Develops core skills eg problem solving, communication, collaboration, creativity, resilience etc

Digital technologies such as LMS, webinar rooms, personal learning spaces, online websites and digital apps etc are great ways of making active learning possible.

You move from being the sage on the stage to the guide on the side

Moving to *Learner-centred learning* and *Learning-centred learning* requires a teacher to shift from being a 'teacher' to a 'facilitator'.

However, this does take some time, some experimenting, and maybe even some failures before a teacher will make that 'metamorphosis' to a facilitator, just like it takes a tadpole to become a frog.

Gilly Salmon's (2002) Five Stage Model is a tried and tested model of facilitating online to start this metamorphose <https://www.gillysalmon.com/five-stage-model.html>.

Ensuring students work successfully and safely online

In order for students to be successful and safe, they need the following information continually reinforced and practiced:

- Logging into institute's online spaces using student login details
- Remembering, resetting and updating passwords
- Understanding and following online netiquette
- Understanding and using anti-virus software, and allowing/applying system updates

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