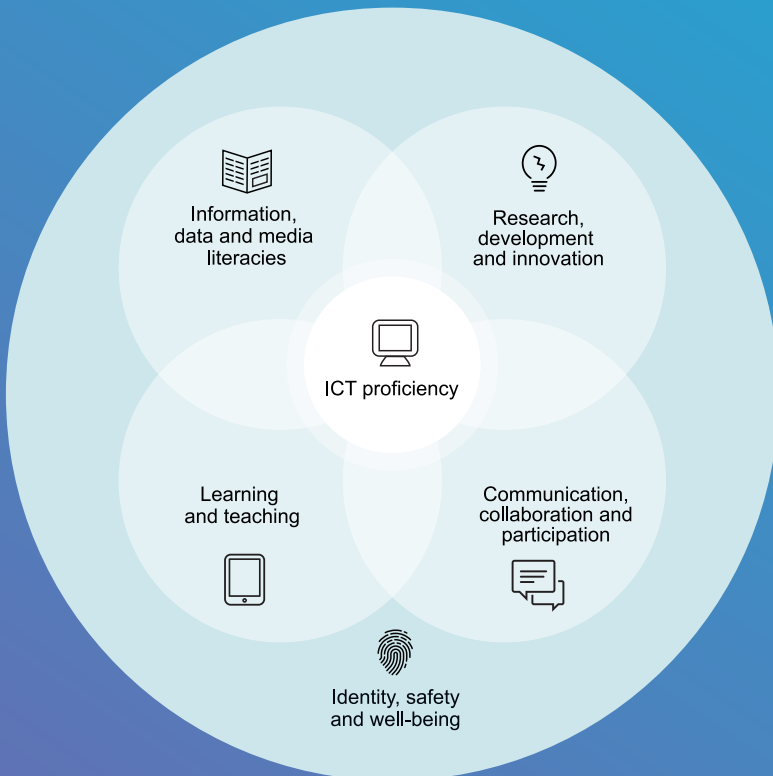




University
of Basel

Framework Digital Literacies



Educational Technologies | Thematic Area Digital Literacies

More information: <https://digitalskills.unibas.ch>

Contact: digital-literacies@unibas.ch

Version of this document: August 2026

This document has been adapted by the **Team Educational Technologies** of the University of Basel from the «Digital Capabilities Framework», version 2024, by the British organization JISC. More information: <https://digitalcapability.jisc.ac.uk>

The text of this document and the diagram are licensed under the license: Creative Commons Attribution–Non-Commercial–ShareAlike 4.0 International
<https://creativecommons.org/licenses/by-nc-sa/4.0>

The logo of the University of Basel is under copyright.

Framework

Digital Literacies

The phrase “digital literacy” stands for a system of capabilities and skills that go beyond the level of mere technical know-how. Being “digitally literate” means having a deeper critical knowledge about technology and digital transformation, on the basis of which individuals can act effectively, creatively and responsibly in digital environments.

General ICT proficiency

Proficiency in Information and Communication Technologies, or “ICT proficiency” for short, stands for the practical and technical skills that are needed to effectively pursue goals in digital environments. It means being able to select and operate hardware (devices), software (applications), and services (such as web platforms).

Practical digital skills are the basis on which other digital capabilities are founded.

An understanding of basic concepts in computing, coding and information processing; an understanding of how digital technology is changing practices at work, at home, in social and in public life; and lastly a capacity to think critically about technology – in other words to critically assess technological developments – are also components of digital proficiency. The relevance of critical thinking increases in the case of disruptive technologies such as AI (Artificial Intelligence).

Concretely, **general digital proficiency** means the capacity to:

- use digital devices, applications, platforms and other online services, including AI-based, to carry out tasks effectively, safely and with attention to quality
- choose devices, applications and services relevant to different tasks, having assessed their benefits and constraints
- adopt, and where necessary adapt, digital tools to meet personal requirements, such as ways of working or accessibility
- deal with problems and failures of ICT when they occur, and find, design and implement solutions
- stay up to date with digital developments.

Information, data and media literacies

Being digitally literate in the area of information, data and media content means being able to find, evaluate, organize, use and permanently store information and data in different formats to answer questions, solve problems, and gain knowledge.

In the context of digitalization, raw data can be defined as records of real-world events, captured and stored using digital devices. By analyzing and interpreting raw data, information can be derived that then can serve in human communication. Information can be stored in different formats, so that news articles, documentary films, picture books, diagrams, statistical data or podcasts may all be seen as different vectors of information.

In the age of digital multimedia and generative AI, the cost of producing and diffusing data, information and content decreases. As a result, the quantity of openly accessible information rises, while its overall quality tends to vary more widely. In consequence, the capacity to evaluate the trustworthiness of data and information in various formats acquires a particular importance.

Concretely, **information literacy** means the capacity to:

- find, evaluate, manage, curate, organize and share digital information
- interpret digital information for academic and professional/vocational purposes
- review, analyse and re-present digital information in different settings
- critically evaluate information in terms of its provenance, relevance, value and credibility
- understand and critically assess AI-based generative tools for content and media creation (text, images, audio, video, animation), with a particular attention to the challenge of AI-generated mis- or desinformation (hallucinations, deep fakes, etc.)
- reference digital works appropriately in different contexts to avoid plagiarism
- understand and respect the rules of copyright and open alternatives, such as Creative Commons.

Data literacy means the capacity to:

- collate, manage, access and use digital data in spreadsheets, dashboards, databases and other formats
- interpret data by running queries, performing data analyses and creating visualizations for use in reports and presentations
- all while applying the principles of personal data security and privacy protection, including when using AI-based tools.

Media literacy means the capacity to:

- critically evaluate media messages in terms of their provenance and purpose
- receive and respond to messages in a range of media – text, graphics, audio, video, animation
- curate, re-edit and repurpose media content, giving due recognition to originators
- understand digital media as a social, political and educational tool.

3

Research, development and innovation

In the age of digital multimedia, it becomes easier to access information in multiple formats. In the same way, with digital tools and techniques, new possibilities emerge for the production, transformation, and dissemination of data and information.

Digital literacy in this area means, first, knowing the tools and techniques that help produce and transform digital artefacts with attention to quality (content in various media, instructions to machines in the form of prompts, scripts or programs, etc.).

It also means a capacity to use technology creatively to support new forms of research and innovation. In particular, digitalization and especially new AI-based tools help automatize many tasks, including content creation, data analysis, and coding. They can also support remote collaboration, thereby providing further opportunities for collective approaches to research and problem solving (e. g. international collaboration, open science, citizen science, open innovation).

Concretely, **literacy in digital research and problem-solving** means the capacity to:

- find and use digitally available evidence to solve problems and answer questions
- collect, collate, evaluate, analyze and interpret new evidence, including using AI-based tools
- share evidence and findings using digital methods and applications, all while applying the principles of academic integrity and data protection.

Literacy in the area of development and digital creation means the capacity to:

- design, create, transform and edit new digital content such as writing, imaging, audio and video, or code (e. g. web pages, scripts, apps)
- use appropriate tools, including AI-based ones, safely and effectively to create and transform content (text, code, image, audio, video, animation)
- pay attention to technical and intellectual accessibility when producing digital content.

Literacy in digital innovation means the capacity to:

- use digital technologies when developing new ideas, projects and opportunities
- assess opportunities, benefits and risks of new digital applications (including generative AI), both at the personal and the collective level
- adopt and develop new practices with digital technology in different settings (personal and organizational, social and work-based)
- understand and practice innovation, enterprise and project management in digital settings.

4

Communication, collaboration and participation

In the age of digital multimedia, the cost of spreading data and information by way of text and figures, audio and video decreases. Moreover, differently from many earlier technologies, the internet is multidirectional at its core: it supports horizontal, interactive forms of communication and thereby provides new opportunities to build networks and exchange data and information.

This enables new forms of collaboration, including over very long distances, as indicated by the growth of collaborative projects such as open software development and online encyclopedias.

Literacy in this area means the capacity to take part in the culture of exchange and co-operation made possible by digital environments.

Concretely, **literacy in digital communication** means the capacity to:

- communicate effectively across digital media and spaces, from text-based forums to audio/video conferences and social media
- design digital communications for different purposes and audiences
- maintain privacy and respect others in public communications
- identify and deal with false or potentially harmful digital communications
- pay attention to the varieties of communication norms and needs with a view to promote inclusion and accessibility.

Literacy in digital collaboration

means the capacity to:

- participate in digital teams, working groups and professional networks
- collaborate effectively using shared digital tools and media for the purpose of organization or content creation
- work effectively across cultural, social and linguistic boundaries, also by harnessing the potential of AI-based tools.

Literacy in digital participation means the capacity to:

- participate in, facilitate and build digital networks
- participate in social and cultural life using digital media and services
- create positive connections and build personal contacts
- share and amplify messages across networks
- negotiate and resolve conflict
- behave safely and ethically in networked environments.

5

Learning and teaching

Digital technology offers new possibilities for learning and teaching. The creation and distribution of learning materials, including in multimedia-rich formats, is easier and less costly. The communication between teachers and students, as well as the communication among students, is faster, easier and more flexible. All this enables new forms of learning, new forms of tutoring and coaching, and new forms of evaluation.

Digitally competent learners know their individual needs and learning preferences and are thus capable of using digital tools, platforms and methods, including AI-based ones, effectively and responsibly to achieve learning objectives.

Teaching effectively in digital environments means having the capacity to make use of digital tools and resources, including generative AI where appropriate, to convey content and support learning. This requires an understanding of different educational approaches and their application in digital settings, as well as an awareness of the opportunities offered by digital technology to re-design courses and assessments.

Equally relevant for both digital learners and teachers is the capacity to assess the impact of digital tools, including AI-based ones, on learning, both positive (peer learning, AI-supported feedback and testing, etc.) and negative (e. g. distraction or deskilling).

Digital technology also makes it easier to search for, re-use, and share learning and teaching materials, in the spirit of open education.

Concretely, **literacy in digital learning** is the capacity to:

- adopt, and where necessary adapt, digital applications, platforms and services for learning, including AI-based tools where appropriate
- manage time and tasks, attention and motivation to learn in digital settings
- participate in learning dialogues via digital media, either with other students or with teaching staff
- identify and use reliable digital learning resources
- effectively participate in digital assessments and receive digital feedback.
- support and facilitate learning in digital settings, in particular by creating digitally-rich content, providing regular feedback and supporting peer learning
- create new learning opportunities and enhance the digital skills of learners, including AI skills
- design courses and assessments for different modes of learning (e. g. self-directed, blended, hybrid, high-flex)
- find, use and share/recommend good digital teaching materials, including Open Educational Resources.

Concretely, **literacy in digital teaching** is the capacity to:

- adopt, and where necessary adapt, digital applications, platforms and services for teaching, including AI-based tools where appropriate, to organize, plan and reflect on teaching
- use digital tools to teach and evaluate students, both individually and in teaching groups

6

Identity, safety and well-being

The number of human activities that rely on digital technology has grown exponentially. The increasing miniaturization of computers, the sinking costs of technology and the simplification of human-computer interaction have made digital devices accessible to all. Furthermore, mobile internet access has become ubiquitous in many countries across the globe.

In order to spread and exchange information over the internet, and in order to access services on the world-wide web, an identification of some kind (“log in”) is in most cases necessary. The multiplication of accounts transforms the proper management of one’s own access credentials into a crucial issue. Moreover, many web platforms offer the possibility to diffuse and store information about one’s own person. This information is collected in individual, sometimes publicly accessible profiles.

The consequence of these transformations is that individual online presence has become a central feature of the age of digital multimedia. Moreover, people increasingly expect from others permanent availability and connectedness, which can be both an increased opportunity for exchange and a cause of distraction.

Being literate in the area of digital identity, safety and well-being means being aware of the benefits and risks that online presence and digital participation entail for identity, reputation, privacy, health, well-being and sustainability, both at the individual and at the collective level.

The issues of identity, safety well-being are transversal to all areas of the digital transformation.

Concretely, **literacy in digital identity and safety** means the capacity to:

- act safely in digital environments by keeping one's personal credentials, data and identity under control
- understand and avoid AI-related safety issues (impersonation, AI-assisted phishing, etc.)
- act responsibly and ethically in digital environments by reviewing the impact of one's online activity on others
- develop and project, when so desired, a positive digital identity or identities (individual or collective) across a range of platforms by collating and curating online personal materials.

Literacy in digital well-being, health and environmental issues means the capacity to:

- protect and develop personal health, social relationships and work-life balance in digital settings, in particular by managing digital workload, overload and distraction
- use digital tools to pursue personal goals (e. g. health and fitness) and to participate in social and community activities
- assess the ways in which digital tools and services, including generative AI, can both support additional needs and have negative impacts around equity, diversity and inclusion
- act with concern for the human and natural environment when using digital tools.

**Educating
Talents**
since 1460.

University of Basel
Petersplatz 1
4001 Basel
Switzerland

www.unibas.ch