# Digital Literacies

## Scenario

Helping learners master digital literacies has not yet become an institutional priority at Alvinston University, but it is gaining a foothold in different corners of the campus. As one example, first-year student Sally Crenshawe had completed a capstone project in high school on digital information sharing. Keen on diving more deeply into this exploration, Crenshawe is delighted that one focus of Alvinston's interdisciplinary seminar for first-year students is on understanding the impact of the digital world on life in the 21st century. As part of the seminar, Crenshawe is working on a project that explores how digital information sharing makes it easier to shape and share "fake" news and how that affects public discourse.

Alvinston biology professor Constance Mackenzie became interested in digital literacies as a tool for exploring ethical issues in a course she teaches on biomedicine. In recent years she has noticed that some learners accept the veracity of digital information without questioning its validity or source. Moreover, some learners focus so narrowly on mastering the techniques of digital tools that they fail to consider higher-order questions about their meaning and impact. By encouraging students to deeply analyze information they pull from a wide variety of sources on the internet, Mackenzie guides learners in considering many different points of view on complex issues like genetic engineering and physician-assisted suicide.

On campus, Mackenzie has considerable support from Ted Johnson, a digital content specialist in Alvinston's main library. Johnson is passionate about helping students and faculty deepen their understanding of the impact of the digital age on our lives today. Further support comes from Alvinston's provost, Brenda Allmain, who asked Mackenzie to chair a small committee that is exploring how students and faculty at the university can deepen their understanding of the impact of the digital age. A forward-thinking administrator, Allmain believes that digital literacies must be integrated into general education at Alvinston and she plans to push toward that goal when the university next reviews its core curriculum.

Mackenzie has been frustrated by the lack of clear definitions of digital literacies in the context of her discipline. As a prominent member of two professional societies in biology, however, she has been instrumental in prodding those national groups to appoint committees that will develop appropriate standards and guidelines for digital literacies in the biological sciences.

## 1 What is it?

The concept of digital literacy encompasses a range of skills and knowledge necessary to evaluate, use, and create digital information in various forms. Digital literacies include data literacy, information literacy, visual literacy, media literacy, and metaliteracy, as well as related capacities for assessing social and ethical issues in our digital world. Digital literacies represent the habits of mind that enable individuals to effectively evaluate and critique information and its use in the digital age. In those contexts, for example, Project Information Literacy, a national research institute studying students' information practices, defines digital literacy as the interpretive and evaluative competencies needed for both navigating a fluid information landscape and developing a deep understanding of how information is produced, consumed, shared, and used for self-learning and collaboration. The American Library Association defines digital literacy as "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills."

## 2 How does it work?

There is growing awareness across higher education that the rise of the digital age demands that colleges and universities educate learners to be able to analyze, make critical sense of, and contribute to the digital world. Programmatic approaches to the development of digital literacies vary widely. Some institutions offer courses, certificates, or even minors in this area, using such labels as digital literacy, information literacy, or media literacy. In many institutions, aspects of digital literacy are taught as part of courses in given academic disciplines. In some cases, requirements for digital literacy are built into general education requirements. Workshops and other trainings help both faculty and students develop their capacity for digital literacies. Often, too, librarians play a key role as partners in helping learners develop specific competencies in digital literacy.

## 3 Who's doing it?

At Brandeis University, students can complete a digital literacy requirement through coursework, an e-portfolio, or online modules, among other options; departments determine which digital literacy goals are relevant to given disciplines. A program at Bryn Mawr College helps students build digital competencies.

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A [digital literacy initiative](#) at Georgia State University seeks to incorporate digital competencies into class activities in the university's core curriculum. Keuka College offers courses on digital learning and has made digital literacy a [focus of introductory courses](#). At the University of North Carolina, digital literacy has been infused in English 105, a first-year writing course; one goal is that students learn to "[critically evaluate the messages they encounter in a networked world](#)." Digital literacy at [Virginia Tech](#) includes data and information literacies built on core competencies such as "evaluation" and "ethics." At Pierce College, the library is engaging in a project that focuses on the intersection of digital resources, marginalized voices, and critical and open pedagogy. Sam Houston State University offers an online [Graduate Certificate in Digital Literacies](#). A team at Google developed [Applied Digital Skills](#), a curriculum that helps learners of all ages gain abilities for problem solving in a digital world. The Ministry of Education in British Columbia offers a [Digital Literacy Framework](#) for K–12 students that outlines knowledge and skills learners need to be successful in the 21st century.

## 4 Why is it significant?

The world of information is changing at an accelerating rate, with continual developments in the kinds of information that are available and the tools that are used to create, use, analyze, and share that information. In this context, the capacity to learn new skills is a key element of digital literacies. Another critical consideration is that inculcating digital habits alters our capacity to know the world around us. To understand this changing world, we need to commit to analyzing, assessing, contributing to, and evaluating the impacts that technology has on everyday life and work. These multiple types of digital literacies will be critical for the citizens and workers who will thrive in the 21st century. Developing such abilities needs to be an essential part of lifelong learning.

## 5 What are the downsides?

While many institutions have begun to pay more attention to digital literacies, that focus remains peripheral at most institutions, with such considerations often relegated to elective rather than core courses or to first-year programs, where they are often given short shrift, given all that such programs seek to do. Most institutions do not have formal programs or requirements for cultivating digital literacy. Many faculty have yet to grasp the full importance of digital literacies, and some faculty themselves lack the kinds of digital literacies that colleges and universities need to teach. In general, academic departments have not yet taken "ownership" of digital literacies and have not developed scholarship that integrates this line of study into specific disciplines. Further

work is needed to inculcate digital literacies across institutions and educational programs, while avoiding the potentially overwhelming proliferation of literacies (digital, media, visual, etc.) that are often siloed in meaning and by discipline. Within the study of digital literacies per se, one potential pitfall is focusing too closely on narrow dimensions, such as gaining new digital skills, at the expense of ensuring that learners develop the lifelong capacity needed to distinguish digital literacy from simple digital proficiency.

## 6 Where is it going?

Expanding data collection and analysis and the explosion in the sharing of information in the digital age will continue to drive an ongoing need for learners and citizens to develop and hone their capacity to analyze and make sense of the full scope and impact of our digital society. With an abundance of information flowing through channels shaped by what has been called "[the invisible hand of unaccountable algorithms](#)," there is a pressing need for learners—and, in the larger context, all citizens—to understand how information reaches them in new forms and is mediated through ever-changing platforms and online sources. In the academy, institutions will devote concerted attention to ensure that more people possess digital literacies in the broadest sense of that term. Further, our understanding of the digital literacies will likely expand and become more refined; already, some experts are embracing the concept of "digital fluency" as a next-generation tool for developing the kind of [social intelligence](#) that is needed to make sense in the digital age.

## 7 What are the implications for teaching and learning?

As society's understanding of technology broadens and deepens, we need to make sure that learners develop digital literacies that will help them analyze and make sense of the digital world and its impact on their lives. To help learners navigate information in an expansive, ever-changing digital landscape, administrators, faculty members, librarians, instructional designers, and others who interact with learners in higher education have a pivotal role to play in helping students understand how information is shaped and shared today across the digital landscape. During a time of tremendous and rapid change in the information landscape, a critical consideration will be how best to integrate and inculcate digital literacies in the curriculum so that learners can develop a deep and well-informed understanding of what it means to be a consumer, creator, and sharer of digital content.