Digital competence – a password to a new interdisciplinary field

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All technology, beginning with writing considered as a techne, is an artefact allowing its users to stock more information, to improve their competence and optimize their performances.

Jean-François Lyotard

Welcome to the 10th anniversary edition of Nordic Journal of Digital Literacy. The editors have selected articles from each volume since 2006. The articles reflect the journal’s development and history. The field of digital competence is interdisciplinary, which has been challenging. Since the beginning of 2006, we have worked to develop a network between the editorial board, authors and peer reviewers. We have succeeded! Step by step NJDL have developed and created knowledge based on digital competence and learning.

Digital competence is a multimodal and complex concept constantly changing with the development of digital media. Media development is multidisciplinary by its very nature. In the space of only ten years, digital competence has established itself as a key concept in educational policy and research. This editorial introduction will touch upon the history of the concept that has emerged from the tension between educational policy and educational research.

Over the last ten years, the term digital competence has set the agenda for innovation, education and pedagogy. The concept has had a double function as an agenda setter. On the one hand, it is the principal policy concept in innovation policy and in educational reform. On the other hand, the concept has become an objective in the development of schools and in practical pedagogy. Educationalists are now working on anchoring digital competence in theories for learning and media development and further developing the concept. The term digital competence has been something akin to a password into new fields politically as well as pedagogically.

From the classical period until today, intellectual trends have had their institutions: the courts, the salons, the newspapers and the journals. It is in such institutions that new concepts and terms are set in circulation, with great speed and motion. New terms sum up the present time, crystallise trends and create new ideas and visions. Such terms make it possible, for a time, for users to create for
themselves a separate discussion area. Some terms can function as the word in vogue of the moment and live a short life as a buzzword. Other terms can create a lasting trend and function as passwords to a new field. Passwords generate ideas, contribute new ways of thinking and provide access to discussions. Digital competence may be the password into a new multi-disciplinary research area, the guide in a process of lifelong learning and to objectives in educational policy.

In the first issue of NJDL in 1986, I made the following reflection: Digital competence can be seen as a concept whose status is «essentially contested» (Connolly 1993). It has a vague conceptual core or essence that is subject to discussion on a fundamental level. Much in the same way as with the word «democracy», several participants will join discussions and efforts to define the concept of digital competence. A discussion on digital competence may take place along three dimensions. Firstly, it is about appraisal or values. Secondly, there is a complex span between skills and knowledge and formative education. Thirdly, there is an openness that creates potential for several possible interpretations and areas of use.

LOOKING BACK

The discussion of the terms digital skills, digital literacy and digital competence are numerous and complex. Use of the various terms in policy documents on educational policies shows that there is an on-going debate and different interpretations within both educational science and politics.

Digital competence has established itself as a collective term for understanding the complex relationships between individuals, organisations, ICT and society. The concept is increasingly central to research, educational policy, learning and public debate.

NJDL is based on a thesis that today there is an untapped potential for learning related to professional and educational use of digital media. This means that digital media are not utilized optimally in learning situations today. In the next few years, the development of digital media will create new opportunities and barriers for implementation and innovation in learning. Consequently, it is a challenge to develop theoretical, empirical, experimental and development-oriented research that can follow and create conditions for the development of digital media.

In a historical perspective, technology is often perceived as a threat before it is incorporated into culture. In cultures based on the spoken word, writing has often been regarded with scepticism and characterised as unnatural and inhuman. Plato (The Phaedrus dialogue) feared that writing would be produced outside of consciousness and destroy the memory. Since then, the art of writing has become completely natural to us. Gutenberg’s controversial printing press
has been implemented in today’s schools. Book print is natural within the schools and is no longer viewed as technology.

However, Ong (1982) shows in *Morality and Literacy* that writing and books are also technology: «Technologies are not mere exterior aids but also interior transformations of consciousness [...] Writing heightens consciousness. Alienation from a natural milieu can be good for us and indeed is in many ways essential for full human life» (Ong 1982:82). According to Ong, writing has become interiorized; in other words, we find it difficult to view writing as technology. There is a close connection between the philosophy of the Enlightenment and printing techniques.

In parts of education, culture and technology are separate. Technology becomes a factor that estranges and dehumanises while the classroom, the book and the curriculum are the neutral representatives of the cultural inheritance. In teacher education’s hidden curriculum, culture is defined as the sum of all the functions and values which oppose technology. Still many educational institutions base their arguments upon the close connection that exists between the philosophy of enlightenment and printing technology. For instance, by viewing a book’s script as natural – something which has lost its technical character – education has forgotten how technology and culture are interwoven. The book may be characterised as the first teaching machine and the first mass-produced commodity.

Many classrooms are still characterised by the attitude that it is pedagogically correct for children to learn to write using a pencil rather than a keyboard and word processing or digital media. The basis for established pedagogical theory and practice is still anchored in oral and written culture. For example, in viewing a book’s print as «natural» – something that has lost its technical character – we forget how technology and culture are interwoven.

At the same time, the Internet is a part of children’s and young people’s upbringing. Leadership in the use of educational technology requires a map and a compass to guide decision-making and action plans. To be truly useful, such roadmaps need to strike a delicate balance: they must incorporate a contextual understanding of real-world technologies, but remain grounded in pedagogical frameworks that guide their application.

Development of digital competence provides children and adolescents with a more varied range of forms of learning, more content resources and often a more stimulating learning environment – and thus with a potential for better and deeper learning. In the schools of the future, students will use digital media innovatively and with confidence to develop the skills they will need as individuals, professionals and interactive participants. A digital culture for learning presupposes involvement, the ability to think critically, cooperation and creative problem-solving: a culture of sharing.
We need to consider the introduction and implementation of technologies in learning in relation to the dynamics, evolution and needs of learning systems in further discussion. Learning takes place in a complex ecosystem where one must be aware of technology trends, but at the same time not become too technology driven. Thus, technologies become inseparable from their affordances and impact on learning. Furthermore, education is understood in a holistic manner. From this perspective, policy making should not be «bewitched» by fashionable technologies, or risk massive cyclical investments in different kinds of technologies that have little effect on developing better teaching and learning practises and outcomes. A systemic approach to school innovation is inspired by technology and driven by pedagogy.

REFERENCES