Guest editorial

Cathrine Tømte

Guest editor
Research Professor, Nordic Institute for Studies in Innovation, Research and Education
cathrine.tomte@nifu.no

Online learning—understood as distance education delivered via the internet—is one of the fastest growing paths within education. We observe an increasing number of students enrolled in online learning study programs and courses, and in higher education institutions regular campus-based education are incorporating elements from online learning too. Several causes are driving the growing number of online students and the hybridization of campus-based education. One is the emergence of new groups of students i.e. adult learners who combine studies with work and who cannot attend campus-based education; another is existing student groups expecting a greater part of the study material to be digitalized and made available online. In addition, the recent wave of mergers in higher education institutions, both in the Nordic countries and in Europe, has created multi-campus institutions that need to draw on teaching resources at several locations (Bates, 2015; Gaebel et al., 2014).

While the reach and uptake of online learning in its various forms and formats – from conventional online courses to large scale open courses, such as Massive Online Open Courses (MOOCS) – are widespread and have a long history within higher education, a similar trend within K-12 education is newer. Barbour (2014) suggests that the emergence of K-12 distance online education derives partly from the evolution of correspondence education via various media, such as radio- and videoconferencing, to online solutions, and partly from governmental financial support of online programmes along with supplemental prospects and nationwide initiatives (Barbour, 2014).

However, whereas the evolution from correspondence education to K-12 online distance education programmes are confirmed in the U.S. and other countries worldwide, emerging K-12 distance online education has had other origins in the Nordic countries. In these countries K-12 distance online education is a rather new initiative that gained ground in educational contexts with the introduction of the internet, which enabled it to reach out to a broader audience across the Nordic countries.

While there are numerous studies on online and blended learning in higher education contexts (Allen & Seaman, 2015; Means, Toymana, Murphy, Bakia & Jones, 2010), less activity is reported both from the practice side and from the research community when it

Idunn
Nordiske tidsskrifter på nett

comes to K-12 online learning (Barbour, Archambault & DiPietro, 2013). However, there are several studies that address the spread and uptake of blended learning and in-class use of ICT for K-12 students, and the boundaries between these categories are not rigid. For example, what constitutes blended learning in some contexts may be considered online learning in others (Barbour, 2014; Bates, 2014).

The boundaries of what constitutes online learning are thus blurred. Nevertheless, one key distinction might be to define online learning as teaching and learning situations where the teacher and students are physically separated and the course is distributed via the internet (Allen & Seaman, 2017). Variations of online and blended learning, and how these types of distributions of teaching and learning influence pedagogics and learning, will be further elaborated in the contributions to this special issue.

This special issue thus highlights online learning in its various forms, spanning from distance based online learning for K-12 students to explorations of various MOOCs within higher education institutions.

In *Conventional classroom teaching through ICT and distance teach*ing, Øgaard introduces the readers to a case study from the outskirts of Greenland, the most remote area of the Nordic region. In Øgaard's paper, we learn that there has been a political focus on distance teaching as a relevant tool in the educational system. The actual case study derives from the most comprehensive example of distance teaching in schools in Greenland, and the author searches for answers to the question of how distance teaching can be utilized in schools, to what degree distance teaching can be labelled a progressive pedagogical development, and whether it supports the learning goals in the School Act. Throughout the analyses, he demonstrates clearly that distance teaching and advanced digital technology rather confirm traditional classroom teaching instead of enhancing new modes of teaching driven by technology. He concludes that, in this actual case, he did not recognize any connection between ICT-driven distance teaching in schools and pedagogical development. Consequently, he suggests that digital or media literacy does not emerge from distance teaching itself, or the use of technology; on the contrary, these kinds of competences derive from implicit and affiliated pedagogical decisions.

His conclusion addressing awareness of pedagogical development when adopting technology for teaching and learning is somehow echoed in the second paper in this special issue, *Digital professional development: towards a collaborative learning approach for taking higher education into the digitalized age*. In this paper, Langset, Jacobsen and Haugsbakken explore the potential of a model for professional digital competency development for teacher educators at a higher education institution in Norway. The researchers highlight that one key dimension of the model would be that it sustains the autonomy of the educator, and they present ideas for new practices and innovation. They go on to say that these goals are easier to obtain when rooted within the institutions, rather than in top-down initiatives, such as institutional strategies and policy documents. The actual model was distributed to teaching staff as a blended learning MOOC. In the paper, the researchers pose two questions: What components contributed to digital professional development (DPD) among the educators we follow in this study? How can we describe a productive digital professional developmental process at the meso-level in a higher education institution, such as a teacher-training unit? The researchers found that the actual model ena-

Idunn
Nordiske tidsskrifter på nett

bled the teacher educators to become digital role models for their students and provided them with new ideas regarding digital learning. Moreover, the researchers found the creation of a community of learners at the meso-level to be useful. Even if the study was a single case study, the researchers suggest that the findings might be transferable to other settings as long as the actual contextual factors are recognizable in those new settings.

The last paper in this special issue also addresses the potential that comes with large-scale online courses such as MOOCs. In this paper, entitled *An Analysis of Participants' Experiences from the First International MOOC Offered at the University of Oslo*, Singh and Mørch investigate the pedagogical practices in the MOOC and the experiences of the participants regarding teaching and learning practices. The MOOC in this paper varies in many ways from the MOOC presented in the paper by Langset and colleagues, which mainly addressed local teaching staff within one single higher education institution. The MOOC Singh and Mørch studied aimed to reach an international audience, which also meant that it was delivered in English. Second, the considerable number of students who signed up to the course addresses the issue of scaling, which is recognized as a key feature of MOOCs. Third, this MOOC was provided by a recognized MOOC platform, FutureLearn. Through a mixed-method study design, the researchers delve into the potential for learning that comes with this type of online course. A key finding was that, due to minimal teacher presence in the course, the students depended on each other to make progress, thus developing peer-led scaffolding activities. The researchers suggest that future MOOCs might benefit from the potential that comes with learning analytics in that it would enable better ways for teacher staff to follow the students' progress.

The three papers that comprise this special issue on online learning in the Nordic countries all address issues regarding the potential inherent in the field. Online learning allows for participation independent from location. As demonstrated in Ødegaard's paper, online learning enables young students to participate in schooling and education from remote areas in Greenland. The case in Singh and Mørch's paper opened up the course for participation for students from all over the world with access to the internet.

Another observation is that even though technology enhanced teaching and learning undoubtedly may boost pedagogical innovation, such a development does not happen without digitally competent teachers and faculty staff. Ødegaard demonstrates this clearly; in his case the teachers mainly continued their teacher-oriented type of instruction over the internet, none of them seeming to grasp the opportunity for pedagogical innovation. Pedagogical innovation through the use of technology is a key feature of the MOOC at NTNU, and the paper by Langset and colleagues demonstrates how various efforts will have to be made in order to succeed on these matters. The role of the teachers and their understanding of how to design online learning environments are also addressed in the last paper by Singh and Mørch in this special issue. The role of the teacher in various online environments are thus to be considered as a key feature, and it takes distinct skills and competences to succeed. Whereas teachers' competences for online teaching has been flagged in numerous studies and in the field of practitioners in countries that have a longer history of online learning, there seems to be less awareness of this in the Nordic countries, even if there are exceptions. This observation is also linked to the fact that the Nordic countries have moved in the direction of online learning at a slower pace than other parts

of the world. Nevertheless, as this special issue has shown, online learning is gaining ground within these education systems and only the future will tell what potential it will provide to citizens of the Nordic countries.

REFERENCES

Allen, I. E. & Seaman, J. (2015). *Grade Level. Tracking Online Education in the United States.* Babson Survey Research Group and Quahog Research Group, LLC.

Archambault, L. & Kennedy, K. (2014) Teacher Preparation for K-12 Online and Blended Learning. In R. Ferdig & K. Kennedy (Eds.) *Handbook of Research on K-12 Online and Blended Learning.* ETC press. Retrieved from
http://press.etc.cmu.edu/content/handbook-research-k-12-online-and-blended-learning-0

Barbour, M., K. (2014) A History of International K-12 Online and Blended Instruction. In R. Ferdig & K. Kenny (Eds.) *Handbook of Research on K-12 Online and Blended Learning.* ETC press. Retrieved from http://press.etc.cmu.edu/content/handbook-research-k-12-online-and-blended-learning-0

Barbour, M., K., Archambault L. & DiPietro, M. (2013). K-12 Online Distance Education: Issues and Frameworks. *American Journal of Distance Education,* 27(1), 1-3.
https://doi.org/10.1080/08923647.2013.759452

Bates, T. (2014) Teaching in a Digital Age. *Open Textbook.*
Retrieved from http://opentextbc.ca/teachinginadigitalage/

Borup, J., West, R. E., Graham, C. R., & Davies, R. (2014). The Adolescent Community of Engagement Framework: A Lens for Research on K-12 Online Learning. *Journal of Technology and Teacher Education*, 22, 107–129.

Gaebel, M, Kupriyanova, V., Morais, R. & Colucci, E. (2014). *E-learning in European Higher Education Institutions. Results of a mapping survey. Conduced in October–December 2013.* European University Association.

Means, B, Toymana, Y, Murphy, R, Bakia, M, & Jones, K (2010) *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies.* U.S. Department of Education. Office of Planning, Evaluation, and Policy Development Policy and Program Student Service.

Idunn
Nordiske tidsskrifter på nett