

Neil Selwyn: Education and Technology – key issues and debates

(New York: Bloomsbury Academic. 2017. 216 p.)

In *Education and Technology – key issues and debates* Neil Selwyn summarises current and highly-disputed topics in the field of educational technology. It explores problem areas related to and caused by the inclusion of information technologies in the teaching-learning process so redefinition of 'education' seems to be inevitable. Burning questions like the role of teachers, the necessity of technology in education or the future we are leading to are touched upon suggesting unforeseeable changes of the upcoming era.

The author emphasizes that within the most developed countries non-material goods like creation, transmission and application of information and knowledge exceed the importance of production of material goods. Professions based on information management require independent and adaptable workforce who are confident in the application of digital technology. Skills underlying the required knowledge are necessary to be improved in the primary school years. Selwyn exposes the fallacy of expecting digital solutions to problems affecting education as a whole, however they are not obviously technology-related. He also draws the attention to the extension and mode of ICT integration in education with special regards to the unpredictable long-term consequences on students' cognitive skills and changes in the standards of education.

Selwyn does not deny the advantage of the application of IC technologies in terms of widening pedagogical spaces, since it might contribute to the aggrandizement of teachers' methodological repertoires and the possibilities of learning outside classrooms by anyone at any time. This leads us to a different aspect to consider: the teacher's role. Teachers are no longer seen as the only and unique source of knowledge, rather facilitators, moderators and animators in the learning process who are able to collaborate for the good of students. As a result of this, the student's role also changes. Students become active team members who are responsible for their own learning and able to create a new type of knowledge or solve problems. The question that might arise at this point is in which direction these changes lead to.

Looking back into the past, the author emphasizes the constant presence of anxiety or unreasonable optimism triggered by the evolution of digital technologies. He attempts explaining the origins of problems deriving from the inclusion of different machines in education and reminds us that designers and developers did not take part in teacher education so they completely ignored and underestimated the social context of schools. Another hindrance is that education cannot adapt to the fast development of digital technologies and this might be the reason why past requirements towards them could not be met.

Models aiming to describe the digitalization of the teaching-learning process lack empirical substantiation and are based on theoretical principles so they can

only focus on assumable consequences. While most of these theories underline the teacher's indispensable role in the teaching learning process, others question its legitimacy as a result of the emergence of artificial intelligence, adaptive learning systems and the rapid development of robotics. Other researchers accentuate the social embeddedness of the teaching-learning process without which motivation, confidence and certain skills as crucial components of successful learning cannot be evoked. This is the reason why differentiation between learning with or via technology must be made. With the growing popularity of e-learning there is an increasing demand for the presence of an online teacher. Although students are capable of autonomous online learning, the relevance of a teacher in the traditional sense is not questioned despite the fact that online teaching and learning space requires a different kind of pedagogical practice. In his final conclusion, Selwyn highlights that participants in education can be just as effective in shaping technology as in shaping people.

The book provides a unique insight into the current approaches and theories on the integration of digital devices into education from a number of points of view in a thoroughly scientific and fun style. It can be widely read by experts of the subject, researchers in the field of education, teachers in practice and people who are interested in the topic.

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