# Growing Minds - 21<sup>st</sup> Century Competences and Digitalisation among Finnish Youth?

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### **ABSTRACT**

Readiness to use digital technologies in meaningful ways is in the focus of national Finnish curricula, implemented in 2016. There is variance in how digitalization is proceeding in education. While many schools are even ahead of their time, there are stills schools that are behind. Because the main strength of the Finnish school system has been equal and free opportunities for all, we do not feel that it is acceptable that the degree of meaningful digitalization varies so much. In my latest book Phenomenal Learning from Finland [5] I discuss this issue from the point of view of developing minds and brains of Finnish youth and look at the situation also from the global perspective.

PISA2015 results showed that Finnish youth, especially girls, were among the best (five) in the world in science, reading and mathematics. The interest in STEM (science, technology, engineering and mathematics) was, however, quite lowamong Finnish youth. We have a problem to attract new generations in STEM. I shall describe some innovations of Finnish science educators. School engagement and life satisfaction are quite good in Finland as compared to other high-achieving OECD countries. Our recent study showed that Helsinki area 6th graders really appreciated their class teachers and the teacher was the main source of their engagement at school [2]. The only aspect where the pupils found that the teacher could not help was supporting their digital engagement at school.

We should bridge the gap that appears to grow between those competences developed at school and those that are required in life after school or outside schools. We should also promote digital engagement and STEM engagement at schools. Not all Finnish youth are smooth in using digital technologies. Less than half of those Finns who were born in 2000 and whom we have followed since they were 6th graders, showed some advanced technological skills. Those young people who were interested in technology, were the least likely to be engaged at school in general and expressed cynical attitudes towards education. Among these were those 25% who were active gamers and those 10-15% of youth who created something new by using digital technologies.

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

ICER '18, August 13–15, 2018, Espoo, Finland © 2018 Copyright held by the owner/author(s). ACM ISBN 978-1-4503-5628-2/18/08. https://doi.org/10.1145/3230977.3230978 In our latest study high school students and university freshmen (including engineering students) were showing quite similar profiles.

The life of an active citizen calls for smooth using of ICT. In modern world, it is almost impossible to do even shopping or banking without being able to use advanced technologies. During the digital era, there is a need for many other broad-based competences that ICT skills, such as multiliteracy as well as socioemotional and cultural competences. This keynote shall address the intensive reforms, both in research-based teacher education and at school that are going on in Finland. In addition to the new Finnish curricula, the latest developments in education, innovative pedagogical methods, technologies in education and new learning environments are going to be presented.

For more information, see [1, 3, 4, 6]

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## **BIO**

Professor Kirsti Lonka, PhD, is Professor of Educational Psychology (2005-) at University of Helsinki, Finland. She is also Extraordinary Professor, Optentia Research Focus Area, North-West University, Vanderbiljpark, South Africa (2016-2019)<sup>1</sup> and



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 $^{1}http://news.nwu.ac.za/prof-kirsti-lonka-trailing-digital-native with ineducational-context$ 

During 2015 - 2017 she was the Associate Editor of Elsevier journal Learning and Instruction (Impact factor 3.8 in 2017). Professor has worked in many countries on several continents to bring the latest innovations and ideas to Finnish education. She is an international researcher and a popular teacher and keynote speaker who has inspired numerous students, scholars, teachers, and educational leaders globally. Her latest book Phenomenal Learning from Finland appeared in June 2018 by Edita Publishing: phenomenallearning.fi

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