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Epilogue

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THE PUPIL OF TODAY – THE STUDENT OF TOMORROW

In this book, you have read about various approaches to the pedagogical change – perhaps we can call it a revolution – in higher education. As a final step before you continue on your way, I would like you to meet Anna, a 12-year-old girl from Finland. Anna is actually just a figment of my imagination, an idealization and a generalization of a student just out of primary school in the Finnish system. Although she is still a tween she will likely be knocking on the door of higher education in less than ten years – if she joins the approximately 160,000 students roaming the halls of the Finnish universities or countless others in Europe or anywhere else in the world (Statistics Finland, 2015).

Finland adopted a new national core curriculum for basic education (grades one to nine) in 2014. Since 2016, all primary schools in Finland (ages seven to twelve) have added their local twist to it and applied it in teaching. From the autumn 2017 also secondary schools started on their path on the new curriculum (Finnish National Agency for Education, 2014).

As an afterthought to what you have already read in this book, this chapter will give you a glimpse into the lives of the Annas in the Finnish educational system of today. By opening this window I hope to awaken curiosity, interest and anticipation: When Anna joins the ranks of higher education in about six years how can her individual skillsets be supported and helped to further flourish? Can we anticipate the skills and expectations she will arrive with?

ANNA AND THE FINNISH NATIONAL CORE CURRICULUM 2014

Anna's teachers have worked for a long time on how to empower and better engage the children in their studies. Hands-on approaches with exploration and practical problem-solving have been encouraged throughout her school years, and maker culture – where things are designed, crafted and analyzed – is very familiar to her. Since first grade Anna has been taught in a variety of creative arts and crafts.

While it has always been a part of her studies, since the 2014 curriculum even more emphasis has been put on helping Anna in setting her individual learning goals and evaluating the steps she has taken in that direction. She was given an increasingly significant role in choosing the most efficient ways for her to learn. Working in collaboration with other students, she was directed to find meaning in her studies, and her teachers work hard to take her personal traits, feelings and interests into account – as well as awaken a lifelong love for learning by showing her that succeeding is always possible. On her path towards self-directed, lifelong learning, Anna is supported in all the steps she

takes, whenever necessary: If she comes across difficulties in learning, they are faced with an elaborate, multidisciplinary support process.

By the time she graduates from upper secondary school, she will have had a decade of practice in finding the learning methods that suit her best. She will have learned to assess her own progress in a multitude of ways and received feedback not only from the point of view of final assessment at the end of a learning block but also throughout the learning process – from the point of view of promoting learning and reaching the learning objectives set for her as well as the ones she has set herself. Anna's parents are often in contact with the school regarding how Anna is doing and they take part in the assessment and support processes.

While Anna's studies are based on subjects, Anna's teachers and other school staff are also cooperating to create multidisciplinary learning modules, collaboration between subjects as well as helping Anna develop transversal competences such as thinking and learning to learn, interaction and expression skills, multi-literacy, managing daily life, ICT skills, entrepreneurship, citizenship, cultural competence, participation and competence in building a sustainable future.

Anna has always had the opportunity to visit and collaborate with companies, museums and libraries. Directed by the curriculum, Anna's teachers have tried to give her an active but friendly and calm learning environment – also outside the school classroom. For example, Anna's reading skills have been honed in collaboration with the library: She has made video and audio introductions at school that were glued as QR codes on library books; now any library goer can listen to her input on their phone before deciding on a book. When Anna thinks of a learning environment, she does not only see a classroom let alone a solitary desk and a chair: She sees a mobile, versatile learning space that can be modified and transformed in accordance with the pedagogical insight of the teacher and the lesson or project – a space that encompasses and embraces the world around the school, the library, the home, the digital environment and the world as a whole. In short, Anna is very much used to employing a wide diversity of methods, varied approaches and environments to learning.

The use of digital environments has become increasingly important over Anna's school years. She started with light robotics already in pre-school as well as practicing drawing letters and numbers on the surface of a tablet computer and on paper. She has started learning with the help of collaborative games and has already programmed her own small-scale computer game. Next year, her school will lend every student in her grade a device to give equal opportunities for everyone to practice digital skills at home. She will also continue to work on programming, is already storing her school work in the cloud and operates the school's Learning Management System on a daily basis. Anna is also heard when the school is deciding on digital environments, and her skills are used in developing them. Because Anna knows her ICT, she asked to become a 'student agent' – a student specialist that helps out if teachers or other students come across technical issues in teaching and learning. To Anna, computers, tablet computers, other mobile devices and 3D-printers are tools just like paper and a pen; sometimes they are the best tool to choose for a certain task, sometimes something else works much better. She, along with her teachers, has learned to assess which tool to choose for which task. The 'Iron Age' where technology came first is long gone, where Anna is concerned.

Anna is very much aware that it is in fact quite likely that the occupation she will have when she grows up might not be invented yet. But she is there, at school, ready and eager to learn, believing in the power of education and knowledge-building – and knowing that no matter what the future brings she can succeed: All it takes is knowing how to learn.

WHAT CAN WE PREDICT OF THE ANNAS OF TOMORROW? SHOULD WE PREPARE FOR HER?

Fast forward six to seven years: Anna is about to enter higher education. Looking at even an imaginary student like Anna is as frightening an experience as it is exhilarating. It is likely that the Annas of tomorrow would find it bizarre to be taught in the traditional methods where absolute objectives or learning tools are presented to big groups of students at a time – or where lecturing is the main method of information delivery. It will probably be difficult for Anna to imagine how knowledge can be delivered in the first place (as opposed to it being built).

As you have seen in this book, steps are taken and changes are made all over the world. However, educational changes and reforms take different shapes in different parts of the world, and major differences between countries, institutions, departments and individual teachers exist in how digitalization or other new methodology is applied to learning (overall views in for example, WDR, 2018; OECD, 2004). It is likely that in a few years as the Annas first start to walk in the international halls of higher education, the diversity between the students will be increasingly pronounced – schools and cities, not to mention countries, move at a different pace and even in somewhat different directions.

Educating the Annas of tomorrow does not mean that the role of the teacher will become insignificant as the learner can just go online and find things to learn on their own. Nor does it mean that each learner automatically has highly-developed competences in understanding the way they themselves learn best, or that all the wheels will have to be reinvented, and all the good old methods thrown out. We will continue to need skilled teachers and instructors, educated pedagogical thinkers with the ability to critically analyze what steps and methods would be ideal for the optimal guidance of each learner. In academia, the balance between teaching and research is another significant point of view when discussing the professional development of the instructors: Is good teaching valued and respected as much as good research? Does the respect show in for example, funding and strategy? Do we communicate in ways that promote equal access to knowledge?

The change that we are seeing in schools and institutions does not happen on its own – it requires leadership, devotion and motivation. We need to be able to answer complex questions like ‘why do we educate’ to find motivation to change teaching methods. We need professional development and training. We need to be able to write and communicate the new ideas in a persuasive way to the right people. We need to find a community of change-makers who help us do it (more ideas for example in Sahlberg et al., 2017).

As an afterthought to this afterthought, it is worth mentioning that the ongoing discussion does not only revolve around the how’s and why’s of teaching, but there is certainly also the essential question of what should be taught. In a world that seems to change and develop at lightning speed, what remains fundamental and unchanged, worth investing our learning time in? What should we teach? In January 2018, Jack Ma, the founder and executive chairman of Alibaba Group, spoke in the World Economic Forum suggesting that with the future of artificial intelligence, we should teach our children in human ‘soft’ skills like values, independent thinking and care for others (World Economic Forum, 2018). Also Ken Robinson, voicing the thoughts of many other educational thinkers, talks about creativity and love for learning as significant targets in learning (for example, Robinson and Aronica, 2015). It makes sense to teach our future professionals to be able to adapt to the changes in their field and the world as a whole, to develop approaches and competences that do not compete with the efficiency of digital systems.

If we accept creativity, adaptability, love for learning and efficient teamwork as something for our students to strive for, should we not extend the same expectation to our teachers and instructors? Indeed, studies suggest that creating coordinated support to allow collaboration and knowledge sharing between teachers is an important piece in improving the quality of teaching (Quintero, 2017). Could this be an approach to be taken when it comes to driving change in teaching and communicating? If educators from across the educational field found ways to collaborate in increasingly efficient ways, would we not speed up the benefits for each learner? At the same time, collaborating with teachers from previous levels of education would enable the higher education staff to meet the Annas they will teach in a few years. And find out if any preparation will still be needed.

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