Future of Education in a Post-Pandemic Environment

Intel® **Skills for Innovation**

People, Content, & Technology Considerations

Four Future Scenarios for Schooling 2040

1. Schooling Extended
Formal education expands with more individualized learning supported by technological advances.

2. Education Outsourced
Traditional schooling systems transform. Learning takes place through more diverse, privatized arrangements.

3. Schools As Learning Hubs
Schools remain, but diversity and experimentation drive adaptive forms of learning and social innovation.

4. Learn-As-You-Go
Education takes place everywhere and anytime. Formal and informal learning are one.

Source: OECD

Figure 1. OECD schooling scenarios, in 2040.[1]

For a deeper analysis, read the full version of the white paper authored by Veerappan Swaminathan, CEO and Chief Futurist, Edm8ker, in collaboration with Intel Global Education Team.

Introduction

The Covid-19 pandemic has caught many educational systems unprepared. Widespread school closures, which forced the rapid shift to remote and virtual learning in many educational systems, are likely to happen again, and it is clear that things will never go back to the way they were. In this brief, we explore the factors to consider to maximize education continuity, relevance, and education system resilience.

Future-Proofing Education Systems

In the Future of Jobs Report 2020[2], the World Economic Forum (WEF) estimates that by 2025, a shift in the division of labor between humans and machines will create 97 million new jobs and destroy 85 million traditional jobs. WEF further forecasts that analytical thinking and innovation will be the top skills in 2025, along with self-management and collaboration skills, otherwise known as social-emotional skills.

As such, planning for the future, and not just a future pandemic, becomes crucial. But what would the future of schooling look like? The OECD, in September 2020, shared four possible scenarios for the future of schooling in the year 2040.[3]

Two common elements that were identified in all of these scenarios are the integral role of technology in delivering learning and the adoption of new skills by all key stakeholders. This underscores that any future-proof strategic approach should include, at its core, a focus on new skills development and the ability to deliver learning in any circumstance.

All education system stakeholders—decision makers, educators, and students—will have a role to play in designing and implementing a new education strategy, and all can draw on lessons learned during the pandemic to inform their approaches.

Shifting to Anywhere Learning

Early in the pandemic-induced rapid switch to "anywhere learning," problems began to emerge. It quickly became clear to the many stakeholders in the education ecosystem that pedagogical approaches designed for in-person instruction were not well-suited to a virtual environment.

For administrators, malware attacks[4] combined with deteriorating staff morale and health[5] posed significant challenges. For their part, educators struggled to adapt lesson plans, assessment methods, and classroom management strategies to a virtual environment. Some responded successfully by keeping their learning content bite-sized to suit students' shorter attention spans. Some used a facilitation-style approach, realizing that it stimulated more self-directed learning behaviors. Many modified assessment methods, making them more flexible and continuous and less test oriented, thus removing the high stakes nature that tended to encourage cheating.

Lastly, students and parents faced the daunting task of creating a conducive learning environment at home. The mental and physical health of both were severely tested, and student engagement levels generally declined. Parental involvement proved key—students who were better supported had caregivers to encourage them and create routines to bring structure to the learning experience.

At Intel, we believe that the "anywhere learning" experience will evolve to a balanced and tightly integrated portfolio of learning and skill development experiences, accessible regardless of where the learner is.

Reimagining Technology for Education

Building the right skills for the future will require a combination of people, content, and technology.

- 🟨 **Face-to-Face** – physical presence in classroom or educational space
- 🟩 **Virtual Learning** – virtual classroom environment (video collaboration)
- 🟦 **Online Personalized Learning**
- 🟦 **Informal Learning** – includes time spent away from technology
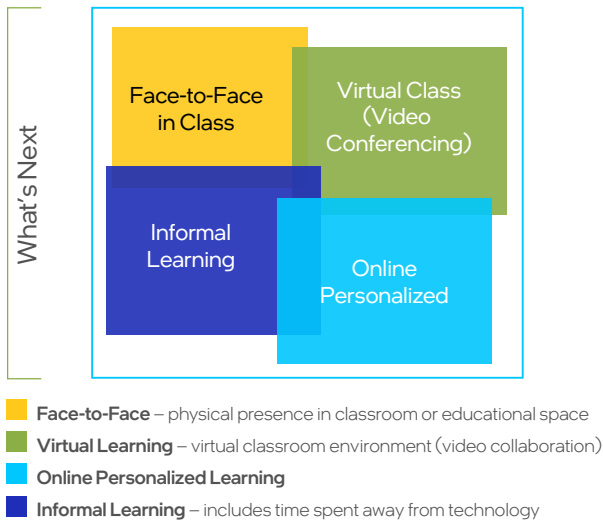
Figure 2. Learning modality will evolve to a model of Anywhere Learning.

By thinking in a multi-model fashion, we can look for opportunities to integrate skill-building technology activities into everyday teaching and learning.

Integrating skill-building activities into the existing curriculum, where possible, bridges content and pedagogy for anywhere learning and future skills development. Today, advances such as the ability to conduct virtual chemistry experiments and develop business models through computer games have vastly expanded the range of possibilities for educational systems and educators looking to reimagine technology for education.

How Intel Can Help

Intel envisions a world in which students learn, from anywhere, the skills to be innovators as they prepare for, imagine, and create jobs of the future. To support the transformation journey of education systems, Intel has introduced the Intel® Skills for Innovation framework that focuses on the development of mindsets and skillsets.
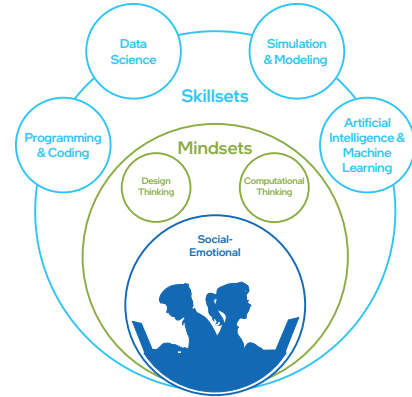

Figure 3. Intel® Skills for Innovation framework focuses on the development of mindsets and skillsets.

About Intel® Skills for Innovation Framework

Using this framework, decision makers and educators can integrate technology into their programs and plans to build skills of the future, and help students develop their cognitive, technical, and social-emotional skills.

The resource package includes:

- **A planning toolkit** to help education decision makers understand new skill requirements, align stakeholders, and facilitate the creation of an action plan
- **An activity starter pack** that allows schools and educators to experience how technology can be used for curriculum-integrated skill-building activities along with resources to support the development of physical and virtual innovation spaces
- **A series of professional development courses** to develop educator competencies to facilitate higher-order skills development in their students.

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[1] Back to the Future of Education: Four OECD Scenarios for Schooling, 15 September 2020, https://www.oecd.org/education/back-to-the-future-s-of-education-178ef527-en.htm
[2] Future of Jobs Survey 2020, World Economic Forum, http://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf
[3] Back to the Future of Education: Four OECD Scenarios for Schooling, 15 September 2020, https://www.oecd.org/education/back-to-the-future-s-of-education-178ef527-en.htm
[4] https://losangeles.cbslocal.com/2020/08/24/malware-attack-forces-rialto-unified-to-suspend-online-learning/
[5] https://www.psychologytoday.com/us/blog/multidimensional-aspects-adolescent-well-being/202009/how-covid-19-has-influenced-teachers-well