Education Reimagined – Challenges in the Digital Transformation of Education

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ABOUT ME

- WORKING FOR MORE THAN 25 YEARS IN HE ON IMPLEMENTATION OF DIGITAL TECHNOLOGIES INTO EDUCATIONAL PROCESS AND SUPPORT TO INSTITUTIONS, TEACHERS AND STUDENTS IN THIS PROCESS
- MANAGER, TRAINER, TEACHER, RESEARCHER, LEARNER…
- M.SC. IN DIGITAL EDUCATION, UNIVERSITY OF EDINBURGH
- PHD. IN INFORMATION AND COMMUNICATION TECHNOLOGIES, UNIVERSITY OF ZAGREB
- AUTHOR OF THE BOOK ON DIGITAL TRANSFORMATION IN EDUCATION, PUBLISHED IN 2021
- I LOVE MY JOB!

What is digital transformation?

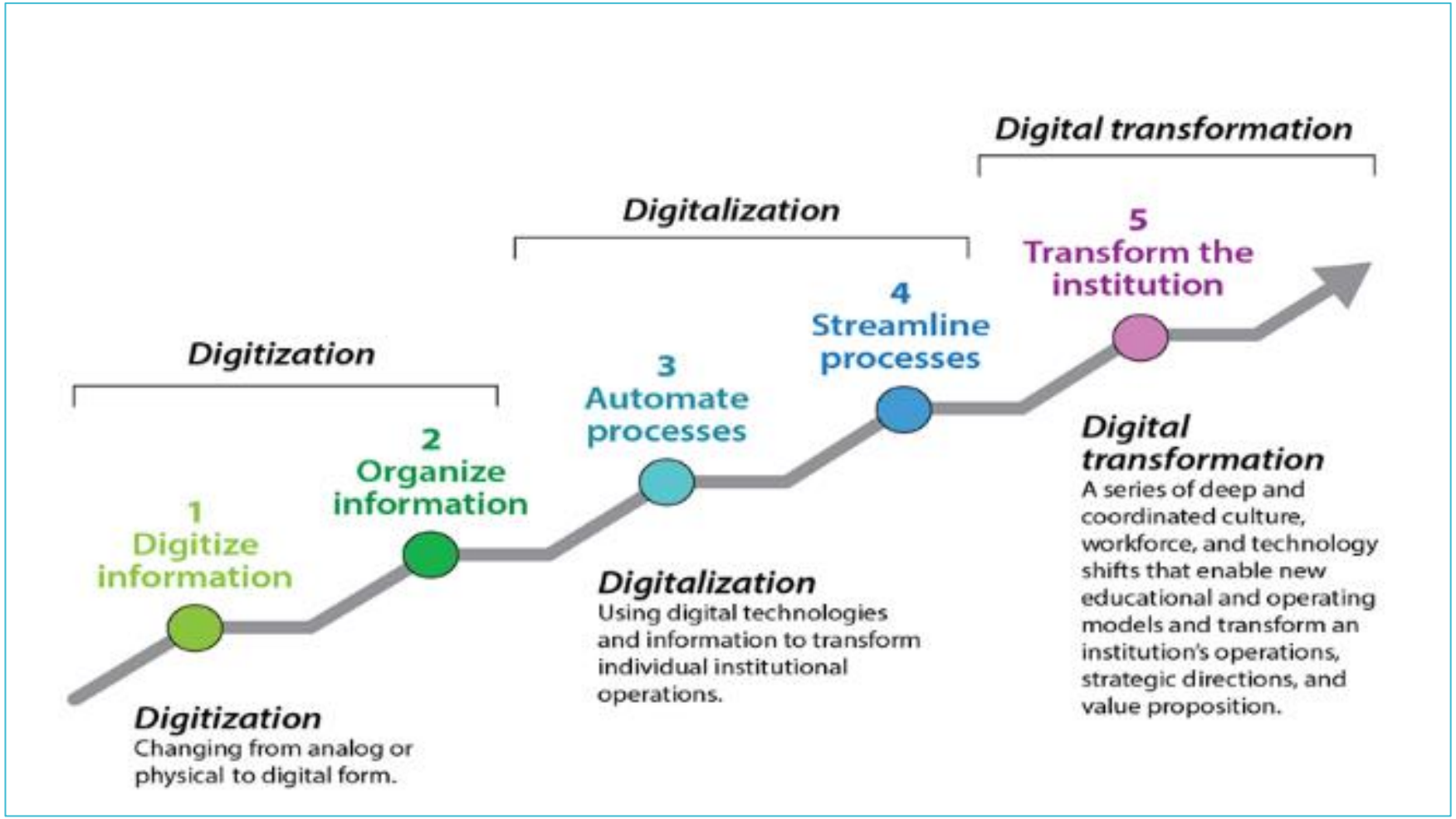
- Digital transformation is the integration of digital technology into all areas of a business, fundamentally changing how you operate and deliver value to customers. It's also a cultural change that requires organizations to continually challenge the status quo, experiment, and get comfortable with failure.
- Digital transformation is a series of deep and coordinated culture, workforce, and technology shifts that enable new educational and operating models and transform an institution's operations, strategic directions, and value proposition.
- Transformations are hard, and digital ones are harder!

Digital transformation in Education

- The digital transformation in education requires teachers to adapt and adopt digital technologies, methodologies and thinking. The digital transformation in educational institutions is not about innovation or technology, but about culture. Through the digitalization of learning experiences, both teachers and students can improve their skills with a common goal: to create a more active and effective educational process.
- Digital transformation of education is the process of the transformation of the content, methods, and organizational forms of educational activities improving educational quality in a rapid developing digital environment to meet the requirements of the digital economy (A. Y. Uvarov, 2019)
- Not a new process… existing for several decades
- Education is undergoing massive changes as emerging technology reshapes and redefines the ways students are learning, additionally fostered by pandemic
- One fundamental element to keep in mind is that education is not only for young people. It does not begin and end with school life. Education and learning is a continuous process and continue well into adult life.

Digital transformation in context

Educause Digital Transformation Study 2020, (Brooks & McCormack, 2020.)



Aspects to be considered in the digital transformation of education

- **Adjust governance and leadership to an educational innovation framework** (holistic vision, strategic planning, educational innovation management model)
- **Open up the educational ecosystem** (integrated digital learning environment, digitalization of libraries, administrative services and others, use, reuse and remix of open educational resources, MOOCs, learning analytics, AI, universal accessibility)
- **Develop an online pedagogy** (reference model for teaching and learning, digital inclusion, eAssessment, teacher training and support, tutor training and support, student/learner training and support, continuous exchange of experiences)
- **Promote curricular development innovation** (openness, flexibility, personalization, formal/non-formal integration, participation of students in co-deigning their learning experiences)
- **Change to a participatory learning culture** (learning and assessment based on trust and collaboration fragmentary and transdisciplinary knowledge, disaggregation of learning, the importance of ethical aspects, educating to survive in the era of information overload)

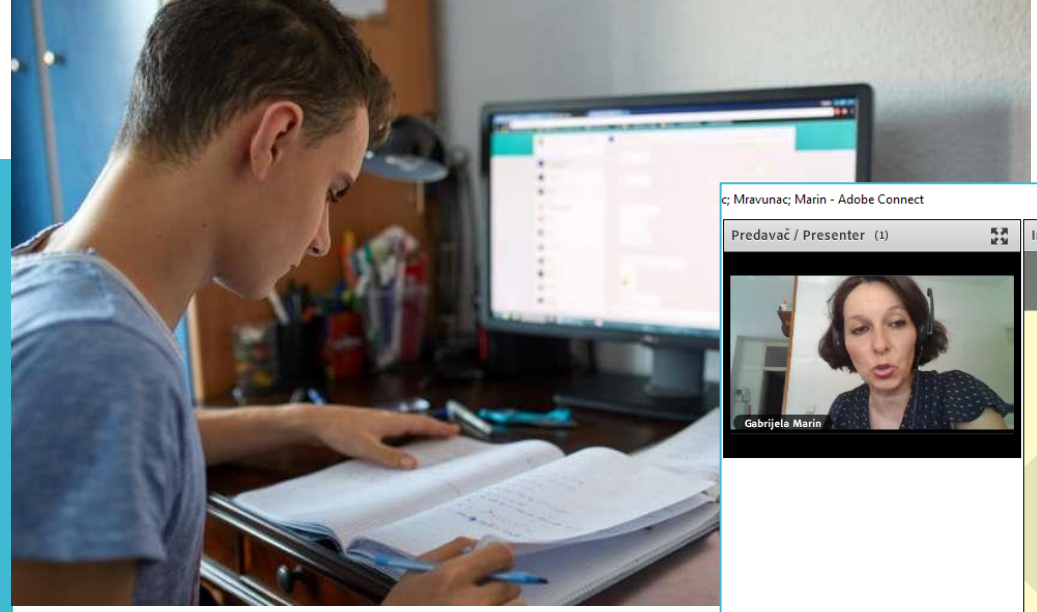
Technology alone does not change anything,

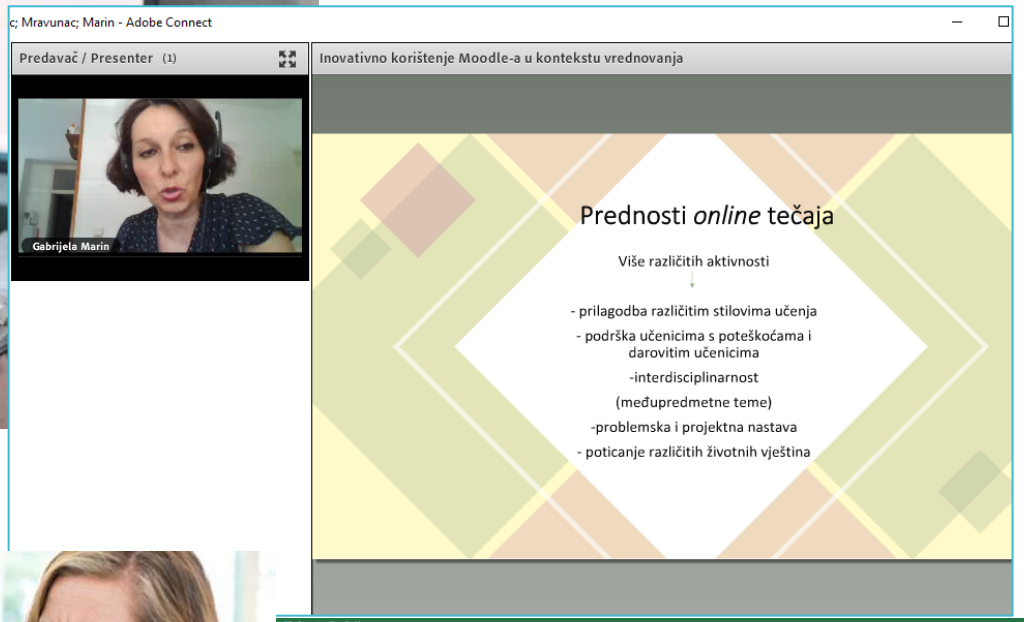
but in the hands of trained teachers, it can transform the learning process.

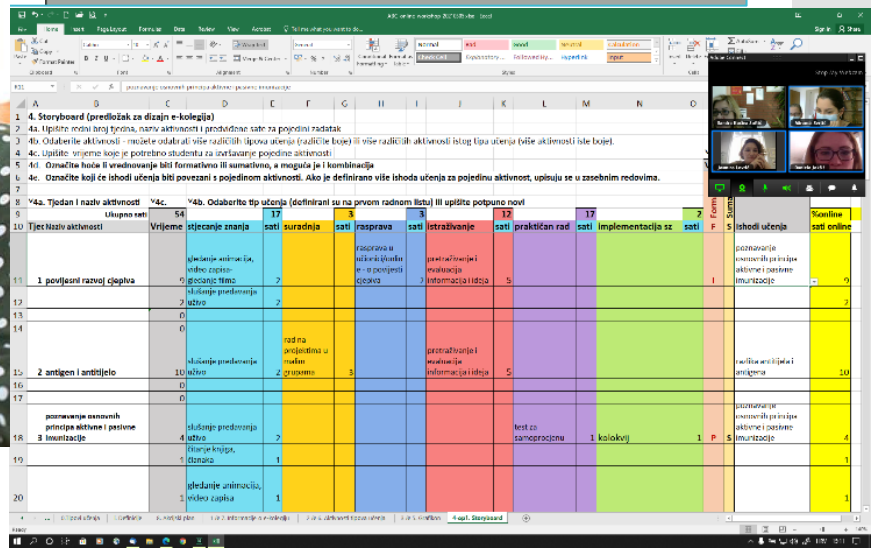
Mariya Gabriel, EU Commissioner for Innovation, Research, Culture, Education and Youth

17/7/2020

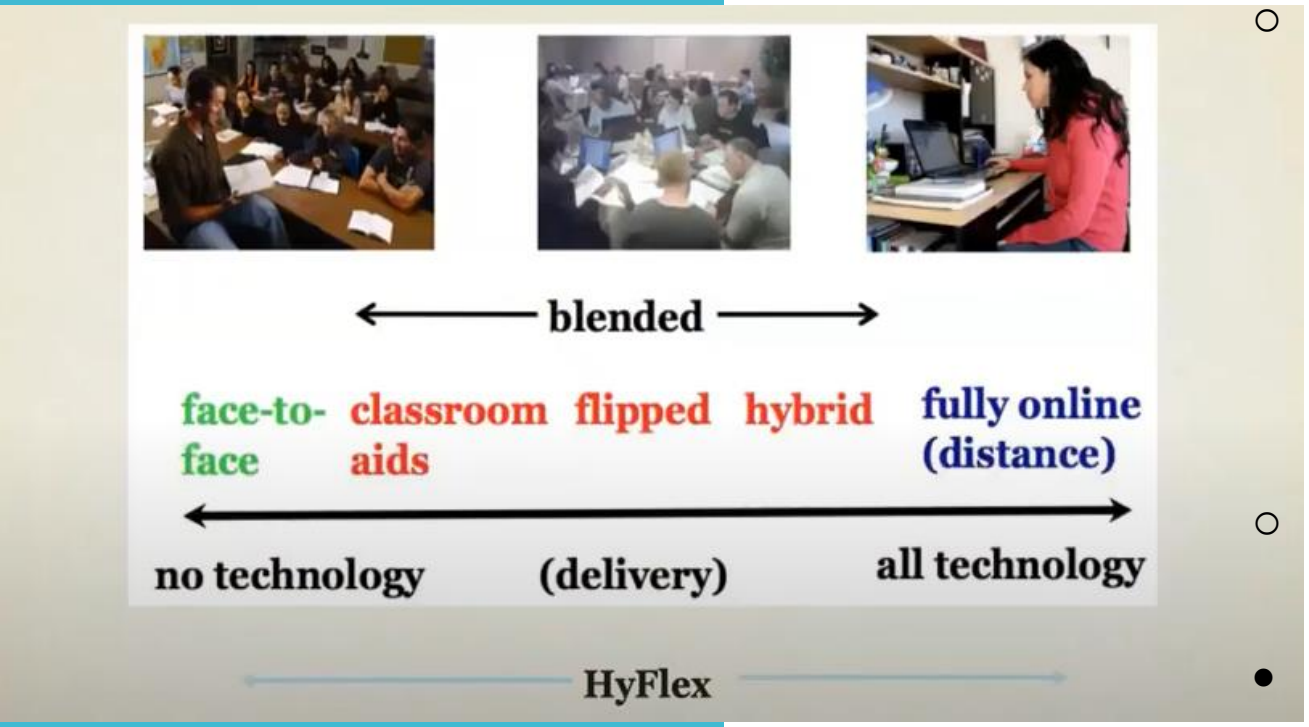
Education in pandemic – **when distance learning saved education**







Definitions



T. Bates, 2020

- Fully online learning – no physical presence
- **Blended learning** (f2f + online part with use of ICT)
  - **Classroom learning with use of ICT as aid**
  - **Flipped classroom:** usually combination of f2f and online. Digital learning materials are prepared in advance by teachers and available to students. The lesson is used to practice, research, resolve ambiguities, discuss, and to reach conclusions. In case the lesson cannot be held in the classroom, it is possible to hold it in an online environment
  - **Hybrid**: deliberately planned mix of online/face-to-face
- **HyFlex**: courses which allow students to seamlessly shift between attending class in person, joining in synchronously online, or catching the class asynchronously later – and they can change their mind, fluidly, from day to day

But, do we want formal education to be online?

- mostly education is prepared to be campus-based
- lectures in the classroom dominant model of teaching
- importance of the social contact
- issue of quality of teaching and learning
- issue of quality of online learning materials
- lack of digital skills of teachers and students
- education in the pandemic - emergency remote teaching is not online education!
- online education – planned and prepared for delivery in an online environment
- distance education and online education
- our students have succeeded in the online space!

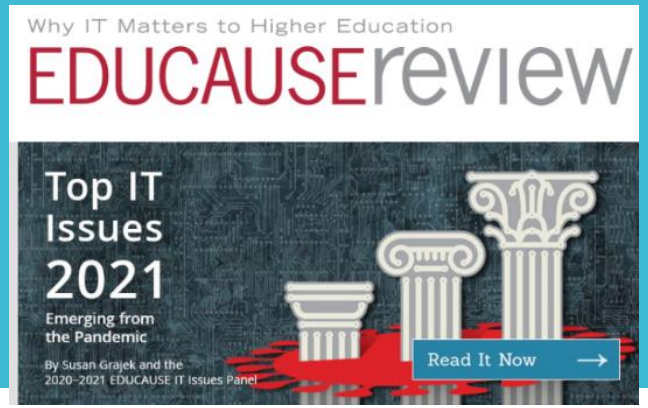
12 guiding principles for teaching with technology –

Book :Technology, Open Learning and Distance Education Routledge: New York/London, 1995. by T. Bates

- Good teaching may overcome a poor choice in the use of technology, but technology will never save bad teaching; usually it makes it worse.
- Professional production and design is important; *this means that 'quality' production counts*
- What can be achieved educationally through one technology can usually be achieved through any another technology, given sufficient imagination, time and resources.
- All technologies have their strengths and weaknesses, therefore they need to be combined.
- Learners are not a homogeneous mass, but vary a great deal in terms of educational background, age, experience, and preferred learning style; therefore try to ensure that all four media (print, audio, television, computers) are available
- Aim should be to use a limited range of technologies in any given context, but covering all the main media
- High quality interaction with learning materials, and interaction between teachers and other learners, is essential for effective learning
- The total number of learners to be served over the life of a course is a critical factor in technology selection
- Judgement about new technologies should be made on educational and operational criteria
- Teachers need training to use technologies effectively
- No-one can know everything there is to know about the educational use and design of every technology now available, and be a subject expert, so team work is essential
- Concentrate on designing the learning experience, and not on testing the technology

still relevant after 30 years?- YES, VERY MUCH

Possible scenarios…after pandemic



- **Restore.** *We will be focused on figuring out what to do to get back to where we were before the pandemic.*
- **Evolve.** *We will be focused on adapting to the new normal.*
- **Transform.** *We will be focused on redefining our institution and taking an active role in creating the innovative future of higher education.*

- Which scenario will you choose?

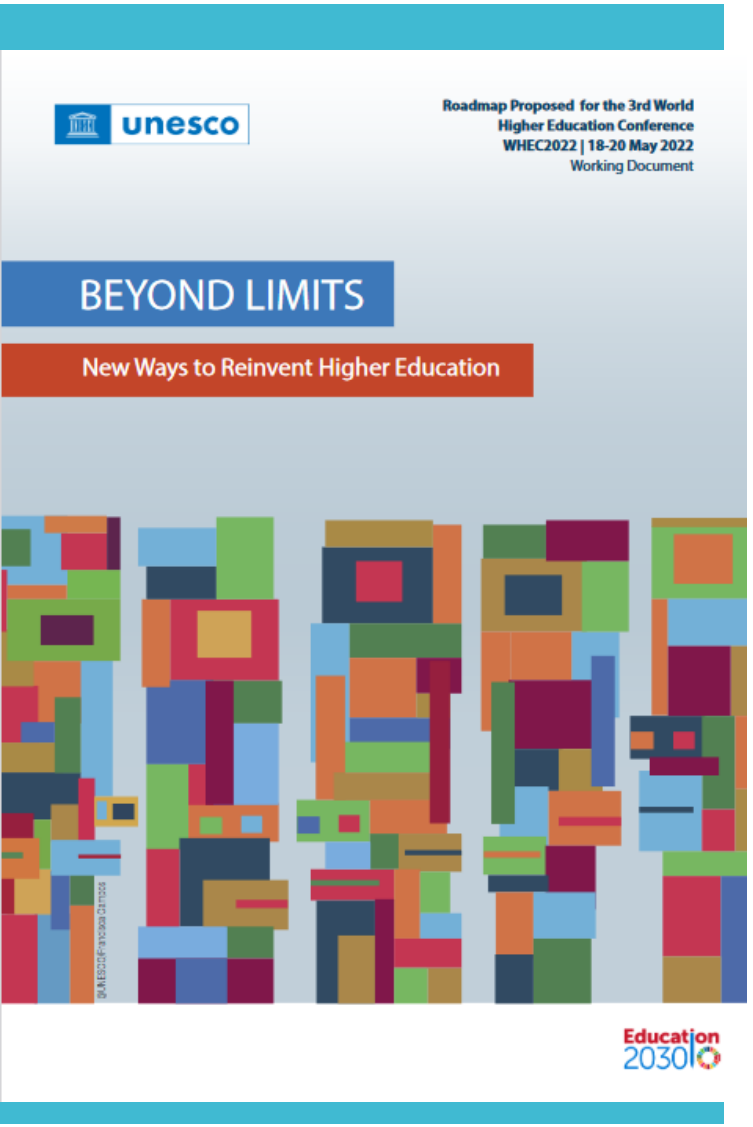
New Digital Education Action Plan 2021 – 2027

Resetting education and training for the digital age

Two strategic priorities:

- **Helping develop a high-performing digital education ecosystem**
- This needs:
- infrastructure, connectivity and digital equipment
- effective digital capacity planning and development, including up-to-date organisational capabilities
- digitally competent and confident teachers and education and training staff
- high-quality learning content, user-friendly tools and secure platforms which respect privacy and ethical standards

- **Enhancing digital skills and digital transformation competences**
- This needs:
- basic digital skills and competences from an early age
- advanced digital skills which produce more digital specialists and also ensure
  that girls and young women are equally represented in digital studies and careers

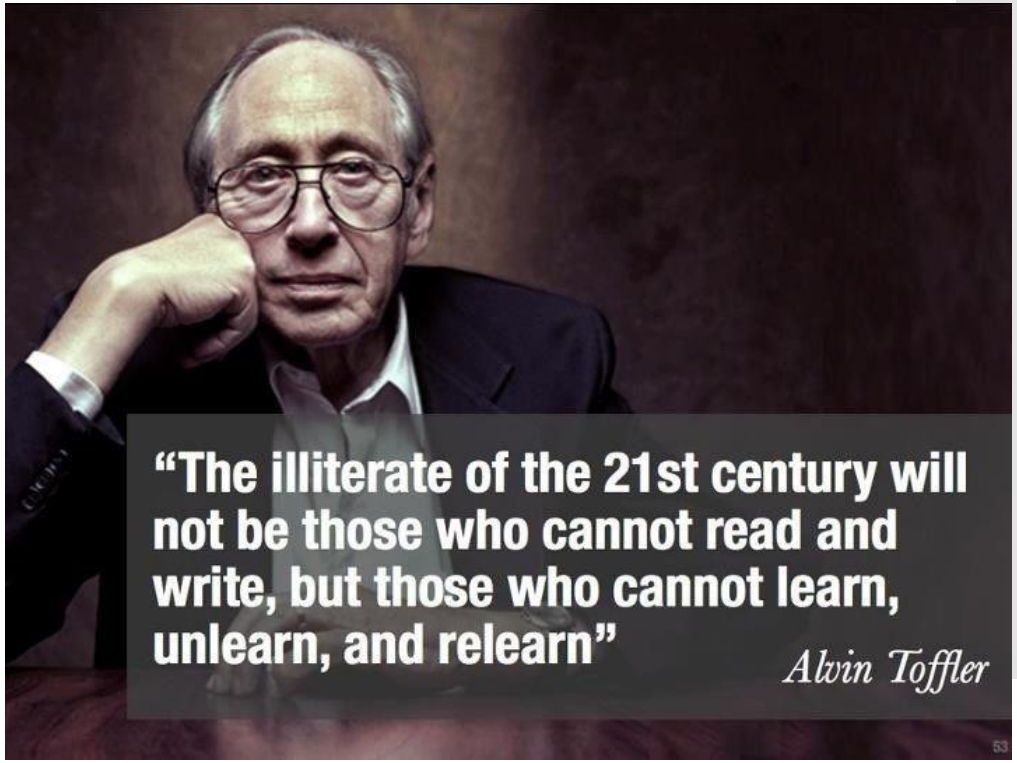


- Equitable and sustainable access to higher education
- Prioritising a holistic student learning experience
- Inter- and intra- disciplinarity: Open dialogue between diverse perspectives
- Lifelong learning approach to serve youth and adult
- Integrated system with programme diversity and flexible learning pathways
- Technology in support of effective teaching, learning and research

The 21st C Learner is . . .

https://smiletutor.sg/facilitating-21st-century-learners/

lifelong learner

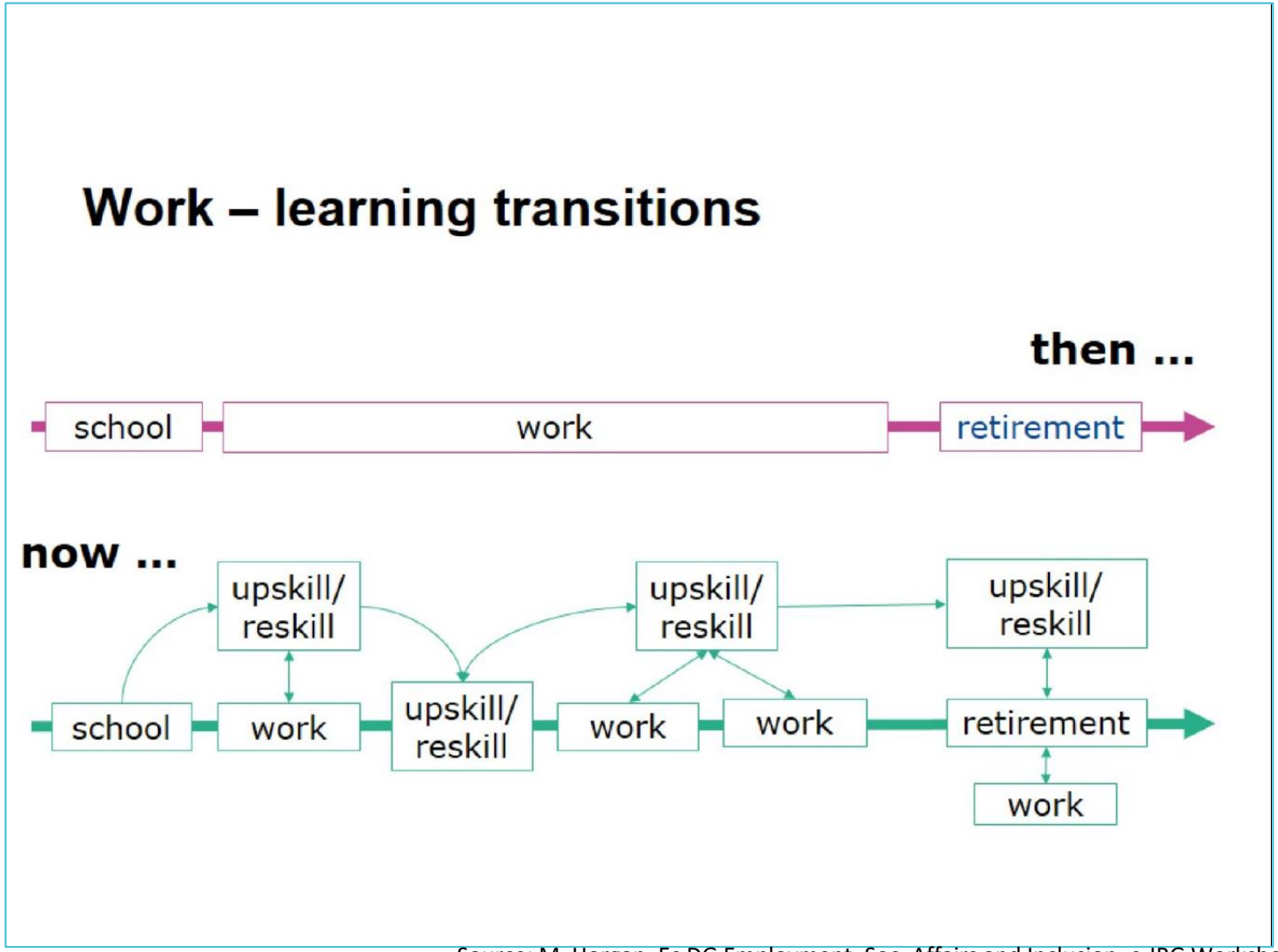


What does digital education bring…

- flexibility of time and space
- easiness of communication
- accessibility to educational resources.. new ones and actual… multimedia and interactive
- access to repositories, museums and digital libraries on global level
- accessibility to larger population…
- openness to wider learning possibilities
- personalisation of learning process
- digital gap… in access to internet and ICT… in digital skills
- modularity of learning …modules
- MOOCs
- microcredentials
- social networking…. communication without borders
- digital skills to be able to fully participate in a society today

- …but also feeling of isolation in online world… poorer oral communication skills… less reading of books…

Future related to jobs



Source: M. Horgan, Ec DG Employment, Soc. Affairs and Inclusion, e-IRG Workshop, December 2019

F2f or online teaching and learning?

It is no more a question if it is classroom or online teaching but **how to combine both of these to ensure the best students learning experience**

We need to prepare our students to be lifelong learners, skilled to be able to live, work and contribute to the world they are living in - we need skilled teachers who will be able to design such teaching and learning

We need higher education that will be able to fulfil the needs of society and citizens today and tomorrow!

Thank you!

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Progress is not possible without change, those who cannot change their minds, cannot change anything.

George Bernard Shaw

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Enhancing good discussion on change

- What are the challenges educational institutions face when getting into digital transformation? Why so many educational institutions are hesitant and slow in starting the digital transformation?
- What are the most important issues institutions need to think about when getting into digital transformation?
- How pandemic has affected educational institutions' perspective on digital transformation?
- How important is research and how it can affect the process of digital transformation?
- Can you define stakeholders and their role in digital transformation?
- How do you plan to communicate the change in an educational institution?