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Lucubrate

Inside

Technology has transformed education

Is Mass Schooling the Best Way?

**Education to make us fit into particular
needs of this particular society**

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TECHNOLOGY HAS TRANSFORMED EDUCATION

Technology has transformed education, perhaps most evidently in course delivery options. However, compelling questions remain about how technology affects learning.

In today's busy, tech-centred world, the need to gain knowledge is unparalleled. The irony is that everyone nowadays is too busy to find the time to learn. That is where e-Learning comes in. Online learners opt for an e-Learning course because it is the quickest and most convenient way to gain knowledge. However, e-Learning is of no value to online learners if they are unable to remember the key takeaways.

As technology is rapidly changing the world around us, many people worry that technology will replace human intelligence. Some educators worry that there will be no students to teach anymore in the near future as technology might take over a lot of tasks and abilities that we have been teaching our students for decades. The thing is: Education will never disappear. It will just take up different forms.

We can agree that in the past, mass content was produced with the well-meaning intention that employees could dip in and out, picking and choosing what was useful to them. Though learner autonomy will remain, the age of endless content has passed. In the future we will see more use of smart curation and content creation that is truly useful to the employee.

Adaptive learning

Adaptive learning tools are technology-based artefacts that interact with learners and vary presentation based upon that interaction. Adaptive learning is one technique for providing personalized learning, which aims to provide efficient, effective, and customized learning paths to engage each student. Adaptive learning systems use a data-driven approach to adjust the path and pace of learning, enabling the delivery of personalized learning at scale. Adaptive systems can support changes in the role of faculty, enable innovative teaching practices, and incorporate a variety of content formats to support students according to their learning needs.



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Adaptive learning



also known as adaptive teaching, is an educational method which uses computers as interactive teaching devices, and to orchestrate the allocation of human and mediated resources according to the unique needs of each learner[1].

Adaptive learning generally uses algorithms to adapt training. These can work out the best possible intervention given any number of actions the learner takes.

For example, if the learner takes a test, the algorithm can adapt the training according to the answers given. Doing badly on certain questions can trigger the system to push relevant content to the learner, or the overall performance could determine which learning path they take.

More advanced systems can even step in during content. For example, it might detect that a learner is spending lots of time on a question or asking for lots of hints. This could trigger it to unlock an extra section of the course which breaks the subject down further to try and make it easier to take in.

As algorithms in learning technologies improve, we move closer towards the experiences we're used to when using social media or online shopping sites. Learners can be grouped together based on their actions and interests, and completing a particular piece of content could lead to other content being recommended, which other similar learners have benefited from.

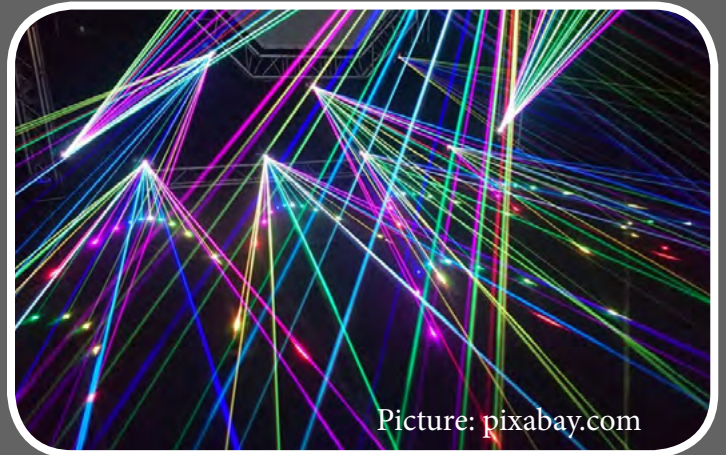
Does the student benefit using the technology in learning?

A study that examines completion rates and exercise scores for students assigned adaptive learning exercises and compares them to completion rates

and quiz scores for students assigned objective-type quizzes in a university digital literacy course shows that adaptive learning systems have negligible impact on learning outcomes. The research explored the hypothesis that adapting instruction to an individual's learning style results in better learning outcomes. The study point out that computer technology has long been seen as an answer to the scalability and cost of individualized instruction. Adaptive learning is touted as a potential game-changer

in higher education, a panacea with which institutions may solve the riddle of the iron triangle: quality, cost, and access. [2]. The study is careful in the conclusion and call for further studies.

A study about how the student reactions to adaptive learning was at two universities with considerably different contexts. Demographic comparisons of the two



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responding sample groups indicated considerable differences in student characteristics, especially with respect to age and work status. The authors concluded that adaptive learning with its flexibility and variable time component is a possible solution to the scarcity problem in our educational system, addressing students with too many needs and too few resources. The authors contend that adaptive learning could help to level the educational and economic playing fields in our society [3].

[1] https://en.wikipedia.org/wiki/Adaptive_learning
 [2] Meg Coffin Murray and Jorge Pérez, Informing Science: the International Journal of an Emerging Transdiscipline Volume 18, 2015
 [3] Charles Dziuban, Patsy Moskal, Constance Johnson, Duncan Evans; Adaptive Learning: A Tale of Two Contexts. Current Issues in Emerging eLearning. Volume 4, 2017, Issue 1



Picture: pixabay.com

IS MASS SCHOOLING THE BEST WAY?

Education is fundamental to development and growth. The human mind makes possible all development achievements, from health advances and agricultural innovations to efficient public administration and private sector growth. For countries to reap these benefits fully, they need to unleash the potential of the human mind. And there is no better tool for doing so than education. [1]

Learning in the homes

For generations, children learned in their homes, from their parents, and throughout their communities. Children were vital contributors to a homestead, becoming involved in household chores and rhythms from very early ages. They learned important, practical skills by observing and imitating their parents and neighbours. Since then, a mass schooling has expanded dramatically.

Mass Schooling

Today we can see that mass schooling have served many countries well in more than one hundred years and has become a part of the modern history. Still this is the main thinking in almost all countries. The young kids have to go to school and sit in the classroom together with a group of other kids. In the school, the kids are following a

curriculum; in most cases, a country has a common curriculum for all pupils.

With a world population of 7 billion people and limited natural resources, we, as individuals and societies need to learn to live together sustainably. We need to take action responsibly based on the understanding that what we do today can have implications on the lives of people



Photo: Goran Ivos

and the planet in future. Education for Sustainable Development empowers people to change the way they think and work towards a sustainable future. Our answer so far is to educate people in big groups, classrooms and schools; the mass schooling.

Changing Focus in the School

UNESCO work with education. The focus for them is the sustainable development. Their aims are to improve access to quality education at all levels and in all social contexts, to transform society by reorienting education and help people develop knowledge, skills, values and behaviours needed for sustainable development. It is about including sustainable development issues, such as climate change and biodiversity into teaching and learning. Individuals are encouraged to be responsible actors who resolve challenges, respect cultural diversity and contribute to creating a more sustainable world. [2]

Mass schooling may have served us

well so far throughout much of modern history, but the 21st century bears little resemblance to the past. Children today must still learn traditional disciplines such as math and language, but these are not enough if they are to succeed in a very different world. So why not also teach programming? Entrepreneurship? Social sciences? Technology and engineering? Wellness?

What should we teach young people in an age where search engines have answers for factual and procedural knowledge? When artificial intelligence analyses, synthesizes, and creates? We must begin by pushing a lot harder to reach “transfer”—the ability to use one’s competencies outside an original classroom setting, in the real world, perhaps many years hence. This was always the goal of an education but rarely a deliberate, comprehensive, systematic, and demonstrable focus. In essence, we should be “flipping the curriculum,” inverting our focus from information and knowledge into expertise and transfer. [3]

Today the teachers can produce lessons on internet. The pupils and students can follow the lesson outside the classroom, everywhere, at any time.

Will we move back where the children learn in their homes, from their parents, and throughout their tablets, smartphones and social communities on the internet?

[1] King, Elizabeth (2011), Education is Fundamental to Development and Growth (<http://blogs.worldbank.org/education/education-is-fundamental-to-development-and-growth>)

[2] UNESCO (<https://en.unesco.org/themes/education-sustainable-development>)

[3] Charles Fadel: Flipping the curriculum could help us meet the demands of the artificial-intelligence era (Education Week January 2018)

EDUCATION TO MAKE US FIT INTO PARTICULAR NEEDS OF THIS PARTICULAR SOCIETY

“Ideally, what should be said to every child, repeatedly, throughout his or her school life is something like this: ‘You are in the process of being indoctrinated. We have not yet evolved a system of education that is not a system of indoctrination. We are sorry, but it is the best we can do. What you are being taught here is an amalgam of current prejudice and the choices of this particular culture. The slightest look at history will show how impermanent these must be. You are being taught by people who have been able to accommodate themselves to a regime of thought laid down by their predecessors. It is a self-perpetuating system. Those of you who are more robust and individual than others will be encouraged to leave and find ways of educating yourself — educating your own judgements. Those that stay must remember, always, and all the time, that they are being moulded and patterned to fit into the narrow and particular needs of this particular society.’”

(Doris Lessing)

Doris May Lessing (1919 – 2013)



As a British novelist, poet, playwright, librettist, biographer and short story writer. This is from her book “The Golden Notebook” (1962)

The world is changing all around us. A skilled population is the key to a country's sustainable development and stability. We know that obtaining a quality education is the foundation to improving people's lives and sustainable development. To contribute to skill people over the next ten years and beyond, we must look ahead, understand the trends and forces that will shape our business in the future and move swiftly to prepare for what has to come. We must get ready for tomorrow today. We will make it possible for youth and young adults all over the world to gain skills they can use in the labour market or to create their own jobs. We will make it possible for every person to have lifelong learning opportunities to acquire the knowledge and skills they need to fulfil their aspirations and contribute to their societies.

The Lucubrate project started in 2017 by NKB. The aim for the project is to become one of the world leader in knowledge transfer independent of the country you live in. The Lucubrate Magazine is a part of the Lucubrate project.

We recognize the creative power that comes from encouraging collaboration and innovation among a team of knowledgeable experts. This unique energy is our greatest competitive advantage in the world marketplace.

- Our purpose is to bring Quality Education and Skills Everywhere.
- Our mission is to support education for building skills to all kind of businesses to create possibilities for jobs and make a lasting difference to people's lives. Globally. 24/7.
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