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EDUCATION IN THE DIGITAL AGE

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Abstract

The World Health Organization has declared Covid-19 as a pandemic that has posed a contemporary threat to humanity. This pandemic has successfully forced global shutdown of several activities, including educational activities. The COVID-19 pandemic was a forceful reminder that education plays an important role in delivering not just academic learning, but also in supporting physical and emotional well-being. Education and the acquisition of skills are crucial to solving some of the world's most pressing problems. Education is a basic right that promotes other rights such as health and civic participation. It is key to unlocking the developmental potential of children, communities, and countries. An educated workforce can help lift people out of poverty, reduce premature mortality, strengthen gender equality, and promote civic participation. Children must also learn skills that can be flexible and adaptable in the age of uncertainty and economic change. Workers will need breadth of skills such as literacy and numeracy as well as the ability to think critically and to solve problems collaboratively. In the digital age, citizens must be prepared to respond to the challenges presented by globalization, climate change, health epidemics, and economic uncertainty. The world needs to urgently rethink the way education is done, how it is delivered, and what skills children will need in a digital age to become healthy and productive members of society. Many agree that the delivery of education to marginalized children must be improved. It is evident that online learning is different from emergency remote teaching, online learning will be more sustainable while instructional activities will become more hybrid provided the challenges experienced during this pandemic are well explored and transformed to opportunities. However, there is little consensus on how to do so in a way that best reflects the challenges and opportunities facing young people today and on why education systems have largely failed to adapt to ensure that all children are receiving the support and learning opportunities they need.

Keywords: COVID-19 pandemic; education; skills; challenges; digital age; online learning;



1. INTRODUCTION

We are living in an extraordinary public health situation that requires taking time out with our children. It is a situation that invites us to come together to make this time count and have a positive impact in the lives of young people. Education is moving into the digital age. Pedagogies have changed to engage the latest digital technologies. Several initiatives on social networks demonstrate this, we seek to come together to share ideas, projects and resources. One central aspect is how best to apply technology to learning and practice. Increased connectivity is changing how knowledge is transmitted. Libraries are being digitized. Classes and course materials once accessible only to the rich or well-connected are now within reach via a smartphone. Yet in schools, technology has largely failed to systematically transform the teaching and learning environment. The methods of distribution are now a blend between face-to-face and some other combination of virtual interfaces. The content is moving from traditional text-based learning to text-plus-multimedia. The community is now involved in the development of content.

The 21st century needs education systems that foster the skills and competences of the future, including creativity, critical thinking, collaboration and communication, and which respond to Europe's demand for economic innovation and growth, the need for adaptability of labor markets and the needs of society as a whole.

Teaching is a very complex profession, which must be adapted according to a wide variety of contexts, subjects as well as learners. It is a profession that does not lend itself to generalizations. However, it is possible to provide guidelines and principles based on best practices, theory and research, which must then be adapted or modified to take into account local conditions.

Some argue that theoretical knowledge is different from other forms of knowledge and that today in the digital age it is even more relevant. Theoretical knowledge, however, is not the only type of knowledge that is important to acquire in today's society. As members of the teaching staff, we need to be aware of other forms of knowledge, as well as their possible importance to our students. Indeed, we need to ensure that we provide them with a wide range of essential content and skills in this digital age.

2. THE CHALLENGES OF ONLINE LEARNING

In addition, information and communication technologies are one of the essential tools to facilitate equitable and inclusive access to education, reduce inequalities in learning, open up new perspectives for teachers and students. The schools mission is to empower students in their use of digital technology, starting with primary school: understanding the ethical issues; identify the advantages of digital technology, but also the challenges; open dialogue between school and parents modeling educational uses, allows young people to make positive use of them. In this sense, discussion and reflection with students on the issues they experience can turn out to be a strategy for getting students to develop a critical look at their use of digital technology. So, engage in a constructive dialogue with them about these issues, the digital challenges, it is necessary to build a constructive dialogue with the pupils. Coming into contact with students from a distance can raise a set of ethical questions for which prior reflection would be useful.

In the digital age, governments, teachers, parents, and children will need to adapt to the rapid advances in technology and major changes to the world of work to solve complex challenges. It is a disservice to children to proceed with a business as usual, incremental approach to improving schooling. Incremental improvements to failed education systems are insufficient to bring about the transformational shifts to curriculum and pedagogy that are needed to get better results. Simply put, in the age of Google, many country's education systems are still based on the assumption of scarce information, which in the long run will spectacularly fail children. If all children are to receive the learning opportunities and breadth of skills that they need and deserve, transformational shifts to the way education is

conceptualized and delivered must occur. All the actors who revolve around the student have a key role in helping the student to develop a critical mind, to question themselves and to reflect on their daily use of digital technology.

More than ever, digital technology is at the heart of our habits. It brings both effective solutions while raising great challenges. Online learning faces many challenges ranging from learners issues, educators issues, and content issues. It is a challenge for institutions to engage students and make them participate in the teaching–learning process. It is a challenge for teachers to move from offline mode to online mode, changing their teaching methodologies, and managing their time. It is challenging to develop content which not only covers the curriculum but also engage the students. The quality of e-learning programs is a real challenge. There is no clear stipulation by the government in their educational policies about e-learning programs. There is a lack of standards for quality, quality control, development of e-resources, and e-content delivery.

This problem needs to be tackled immediately so that everyone can enjoy the benefits of quality education via e-learning. One should not merely focus on the pros attached to the adoption of online learning during the crises but should also take account of developing and enhancing the quality of virtual courses delivered in such emergencies. A lot of time and cost is involved in e-learning. It is not as easy as it seems, a considerable amount of investment is needed for getting the devices and equipment, maintaining the equipment, training the human resources, and developing the online content. Therefore, an effective and efficient educational system needs to be developed to impart education via online mode.

3. THE SKILLS NEEDED IN DIGITAL AGE

Knowledge involves two strongly inter-linked but different components: content and skills. Content includes facts, ideas, principles, evidence, and descriptions of processes or procedures. Most instructors, at least in universities, are well trained in content and have a deep understanding of the subject areas in which they are teaching. Expertise in skills development though is another matter. The issue here is not so much that instructors do not help students develop skills – they do – but whether these intellectual skills match the needs of knowledge-based workers, and whether enough emphasis is given to skills development within the curriculum.

The skills required in a knowledge society include the following (adapted from Conference Board of Canada, 2014):

- communications skills: as well as the traditional communication skills of reading, speaking and writing coherently and clearly, we need to add social media communication skills. These might include the ability to create a short YouTube video to capture the demonstration of a process or to make a sales pitch, the ability to reach out through the Internet to a wide community of people with one's ideas, to receive and incorporate feedback, to share information appropriately, and to identify trends and ideas from elsewhere;
- the ability to learn independently: this means taking responsibility for working out what you need to know, and where to find that knowledge. This is an ongoing process in knowledge-based work, because the knowledge base is constantly changing;
- ethics and responsibility: this is required to build trust (particularly important in informal social networks), but also because generally it is good business in a world where there are many different players, and a greater degree of reliance on others to accomplish one's own goals;
- teamwork and flexibility: although many knowledge workers work independently or in very small companies, they depend heavily on collaboration and the sharing of knowledge with others in related but independent organizations. In small companies, it is essential that all employees work closely together, share the same vision for a company and help each other out. In particular, knowledge workers

need to know how to work collaboratively, virtually and at a distance, with colleagues, clients and partners;

The 'pooling' of collective knowledge, problem-solving and implementation requires good teamwork and flexibility in taking on tasks or solving problems that may be outside a narrow job definition but necessary for success;

- thinking skills (critical thinking, problem-solving, creativity, originality, strategizing): of all the skills needed in a knowledge-based society, these are some of the most important. Businesses increasingly depend on the creation of new products, new services and new processes to keep down costs and increase competitiveness. Universities in particular have always prided themselves on teaching such intellectual skills, but the move to larger classes and more information transmission, especially at the undergraduate level, challenges this assumption. Also, it is not just in the higher management positions that these skills are required. Trades people in particular are increasingly having to be problem-solvers rather than following standard processes, which tend to become automated. Anyone dealing with the public needs to be able to identify needs and find appropriate solutions;

- digital skills: most knowledge-based activities depend heavily on the use of technology. However the key issue is that these skills need to be embedded within the knowledge domain in which the activity takes place. Thus the use of digital technology needs to be integrated with and evaluated through the knowledge-base of the subject area.

Skills development is relatively context-specific. In other words, these skills need to be embedded within a knowledge domain. Digital skills are necessary. Other than the creators of fantasy novels and sci-fi movies, no one would have predicted fifty years ago how our lifestyles today would revolve around hand-held devices and the digital world. Technology has become so integrated in everyday life that we can hardly remember what the world looked like before our multi-device, constant-connectivity fantasy future became today's reality. Digital skills are part and parcel of higher education, and an important part of life for university students. Learning these key aspects of the 21st-century technology that surrounds us can only benefit students in their pursuit of knowledge.

While digital natives, people who were born in the digital age, will have no trouble obtaining digital literacy, for the rest of us, the digital immigrants, a more conscious effort is needed to become competent digital citizens, capable of coping with and making the most out of our daily, web-centric practices.

4. EDUCATIONAL METHODS IN DIGITAL AGE

It is necessary that educational methods are used so that they contribute to develop and transfer specific skills promoting the objectives of acquisition and dissemination of knowledge, while preparing future graduates for work in a knowledge society. As the numbers of students have increased, teaching has all sorts of reasons, regressed on its side to a greater focus on transmission information and less focus on questioning, exploring ideas, presentation of alternative points of view and the development of critical or original thinking.

However, these skills are precisely those that are very necessary for students and students in a knowledge society. The vast diversity of student populations represents a major challenge for institutions teaching. To overcome such a challenge, it is mandatory to focus more on teaching methods that provide support to learners, more individualization of learning and more flexible delivery.

The evolution of technology is continuous. In fact, it even seems to be accelerating. New technologies, which could be applied in education, are constantly being created. So, the technology is here to stay. Technology in education and the right devices in students' hands helps prepare them with the career and technical skills they need to be successful today and in tomorrow's workforce. Relevant learning experiences can inspire creativity, help students apply meaning to their learning, and prepare them for future career opportunities and jobs that haven't even been created yet. Specific skills in coding,

programming, physical computing, and computational thinking have become common requirements in the workforce. Though making, students can gain these skills and hone their problem-solving and critical thinking skills for the 21st century. Learning by doing with maker mindsets and environments can be very engaging when designed and integrated with the right technology.

Coronavirus pandemic School systems have the hard decision of choosing devices and technology models that will help achieve their visions of transforming learning. Device decisions should be made by working with multiple stakeholders and evaluating how educators and students use the devices for day-to-day learning. Stakeholders should take into account appropriate grade-level curriculum, content needs, and how the devices will be used inside and outside the classroom. It's no easy task, but considerations such as compatible digital curriculum and content, assessment requirements, manageability options, security features, device functionality, and the overall cost of ownership are key to choosing the right device. A secure and robust IT infrastructure is the foundation of a 360° learning experience, and supports digital content, protects key student data, boosts operational efficiency, and provides the security and privacy protection today's schools need. Technology is transforming education, changing how, when and where students learn, and empowering them at every stage of their journey.

Teachers are at the forefront of kids educational experiences, and it's now incumbent on them, as well as parents and school administrators, to provide children with the guidance and technical skills they need to succeed in their connected future. Through the use of technology as both a learning tool and a subject matter discipline in and of itself, there are a number of new ways that teachers can inspire kids to learn.

Technology provides numerous tools that teachers can use in and out of the classroom to enhance student learning. There are many ways to use education technology to promote enhanced classroom learning :

- Share Content Online - Whether it's posting videos to a private channel for class members and parents to see, using Google Docs to share materials so students can collaborate on a shared project, or posting homework assignments to a class website for everyone to access, using technology as a tool demands a base level of proficiency from students that they'll need to continue to build on. Have Fun with Twitter - For classes with kids over 13, consider using Twitter to contact well-known personalities or to create hashtags about a relevant classroom topic and see if you can spawn participation from external parties.

- Use Video Chats - Use videoconferencing solutions such as Skype to connect with faraway experts or other classrooms for an online meeting via webcam, letting children share their experiences, make new friends around the world, and engage in distance learning. All provide opportunities to teach your kids basic rules and etiquette for teleconferencing online, such as when and how it's okay to connect, as well as how to act when you're on camera, especially if sessions are being taped or recorded.

- Use Pinterest - Create a private board on Pinterest to share snapshots of classroom activities, projects, and field trips, or encourage parents to connect and find ways to help show their support for the classroom. Pinterest is a great, visual medium with lots of creative ideas that can encourage kids to share insights into their world and try new projects, and give parents an easy way to share recipes, photos, and other fun pick-me-ups or supplements to current class projects.

- Put Together a Podcast - Have your class take turns reading passages from a book, or schedule and record a discussion point based on your curriculum or a specific topic. Not only will you show kids how easy it is to broadcast thoughts to the world, but also provide handy references - e.g. recordings of recent lessons - if they or future students would ever like to go back and review them.

- Create a Class Blog or Wiki - Encourage kids to respond to in-class lessons or current events and topics, and devise a system for posting thoughts, news or impressions of them to a class blog or Wiki. Kids will love improving their creative writing skills and seeing their work appear online, and parents will love being able to feel more connected to the classroom. As the school year progresses, it's often great fun to watch a class' page fill up with posts and discussions, and see kids, parents, and educators engage in more frequent and ongoing dialogue. Online methods of teaching support and facilitate learning—teaching activities, but there is a dire need to weigh the pros and cons of technology and harness its potentials.

5. CONCLUSIONS

In conclusion, it is visible that instructional technology, as a research field with several subdivisions, has played a major role in cushioning the effect of this pandemic on educational activities by serving as the only platform for instructional design, delivery and assessment platforms. The global acceptance and experience of contemporary online learning (i.e. emergency remote teaching), as some may call it, will definitely lead to situations where pupils and schools will get used to application of technological devices and tools for teaching and learning, and this usage will, no doubt, go beyond school into the place of work.

Despite the sudden migration of instructional delivery to online platforms by universities, schools and other citadel of learning during this pandemic, provided the challenges experienced by schools and pupils are well explored and transformed to opportunities, it is evident that online learning will be sustained and educational will become more hybrid.

Disasters and pandemic such as Covid-19 can create a lot of chaos and tensions; therefore, there is an important need to study the technology deeply and with due diligence to balance these fears and tensions amidst such crisis. COVID pandemic has not only impacted human life but also impacted education and made us realize the importance of online training for our students. Online Teaching Is No More an Option, It Is a Necessity!

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