# Digital education: risks or benefits with business collaboration

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**Abstract.** Digital education can supply the framework to support new learning approaches that engage students, bolster new revenue streams, develop with business collaboration, cut operational costs and preserve highly valued school and university brands and reputations. Effective digital transformation isn't just about technology, though. It requires a willingness to adopt technology in new ways, beyond administrative process. The article actualizes the need to solve the problem mismatch between potential employer expectations and how universities prepare students for the future workforce. The factors that change digital technologies are determined. Approaches to creation next-generation learning environments that effectively prepare students for the future by offering access to the tools they need to prepare for the workplace while also providing a fulfilling learning experience are described.

**Keywords:** digital education, collaboration of universities and business, learning environment

## 1. Introduction

Technology continually breaches almost every area of our lives and the high education sector is no exception. Most students have grown up online and will expect the same levels of technology in their learning environments as in their day-to-day lives [5]. Students of 21 century want always-on access to the resources, wherever they are on or off campus, for a deeper and more flexible learning experience [5]. In fact, the nature of education target audience means that it must adapt to accommodate this audience expectations.

To show the ever-increasing level of the Information and communication technology (ICT) development its service exports (computer and communications services and information services) is represented on figure 1 [10].

In parallel with the benefits of e-learning at universities, there are fears of scientists that online access of lectures reduces student attendance. But the results of an experiment of scientists from Queen's University Belfast [2], showed that this did not have a negative impact on student's attendance, and that the students instead used personnel to strengthen traditional training.

The experiment covered 80 students who were interviewed before the start of the course, 27 percent of the respondents said that if the video was available, they would no longer consider attending lectures as an integral part of their training. But the analysis of attendance showed

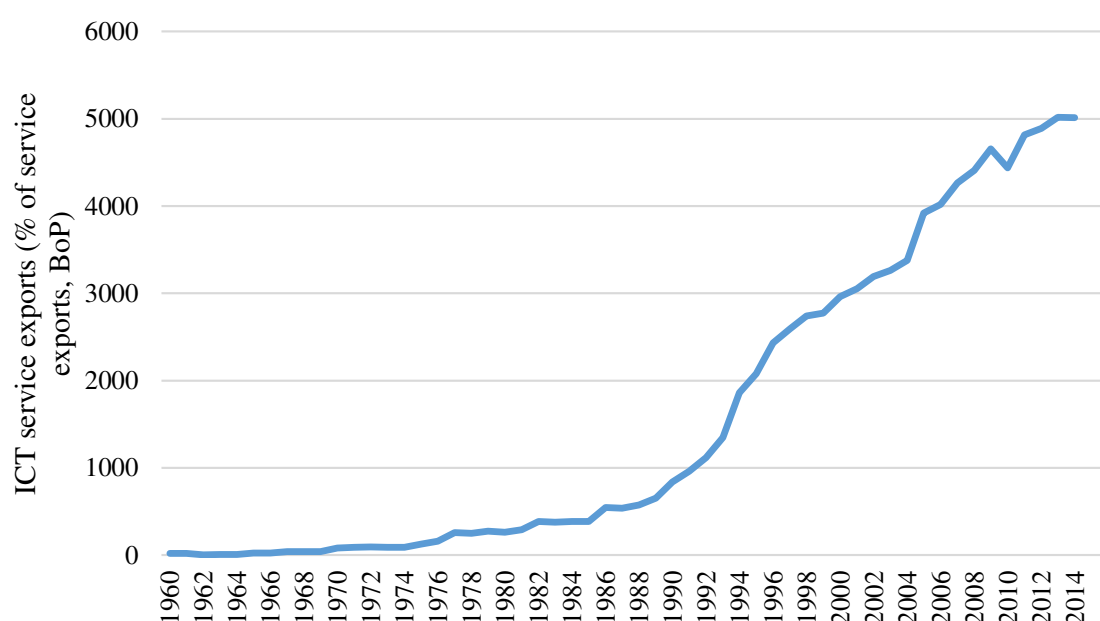ACNS Conference Series: Social Sciences and Humanities

**Figure 1:** World ICT service exports (% of service exports, BoP) [10].

that the lectures that were posted on the Internet had a higher average attendance rate of 86 percent compared to the rate where the main points were not posted on the Internet 81 percent. In addition, in a survey conducted after the end of the course, 96 percent of the students said that the availability of staff did not affect their attendance. What more, researchers found that the videos that had tended to prove most popular were those that were linked to assessments. In the post-course survey, 98 per cent of students said that revision in preparation for an exam was a primary reason for viewing a video [3].

Creating a digital learning environment is not just about offering convenience and familiarity to students, however. Employers want graduates who are adept at using ICT for different tasks on their workplace. This mismatch between potential employer expectations and how universities prepare students for the future workforce has been well documented in academic studies, and continues to be an issue [5].

## 2. The results and discussion

With the right technology platform, solutions and industry partners, universities are starting to create next-generation learning environments that effectively prepare students for the future by offering access to the tools they need to prepare for the workplace while also providing a fulfilling learning experience.

With more details the study about new digital technologies impact to education industries was examined at length in the research "Digital Vortex How Digital Disruption Is Redefining Industries", developed with IMD [5]. There were highlights three main things that digital

technology is changing [7]:

- flexibility of learning, which means being able to alter the place, the pace and the mode of learning;
- fundamental change in the way that learners are able to gain knowledge, skills and competencies through the use of technology, which is going to be useful for their future employment in our increasingly digital world;
- fundamental change in the way that learners are able to interact with other individuals, both their peers and educators, from all around the world as a result of digital technology.

The collaboration of universities and business is one of the important issue of ICT's role in education that presented in figure 2. One of the most important issue in universities and business collaboration is that young people can't find jobs and employers can't find people with the right entry-level skills [1]. How to solve this problem?

| ICT in logistic | ICT in the learning process | ICT in the field of study | Impact on business model |
|---|---|---|---|
| • Administrative processes<br>• ICT in facilities and lecture rooms<br>• Any device | • Blended/Online<br>• Learning analitics<br>• Automated feedback<br>• Self-control for learning progress | • Digitization Sectoral ICT developments<br>• Required skills upon graduation<br>• Keeping up to date as alumni | • New target groups (lifelong learners)<br>• Collaboration with business<br>• Certification<br>• More flexibility (e.g. credits for MOOCs) |

**Figure 2:** The different roles of ICT in education at universities [9].

The McKinsey & Company study [1] highlights two solutions to prepare work-ready graduates. First, employers can help design curricula and offer their employees as faculty while education providers can have students spend time on a job site and assist with job placement [8]. *For example, the INJAZ Junior Achievement programme in the Middle East aims to provide business skills and financial literacy to students in Egypt, Jordan, Lebanon, Morocco, Saudi Arabia and the united Arab Emirates through a mixture of classroom and extracurricular activities* [4]. Second, graduates who has found the job don't already have additional time to come back to traditional class for get new knowledge that may be required by employer. And there is most transformative solutions – universities may offers advanced programs to provide in-depth training that can help graduates qualify for highly specialized dealership positions requiring brand-specific knowledge using the online learning platform [8]. Such collaborations help solve the skills gap at a sector level by splitting costs among multiple stakeholders (educators, employers and trainees) [1]. *For example The Cisco Digital Education Platform that has transformed more than 14,250 school districts*

*and educational institutions and 9,800 colleges and universities in 127 countries. With their partners, they help colleges and universities create a completely integrated digital environment [6]. Another one of the best practice in universities and business collaboration using ICT is Universal Technical Institute (UTI) that embraces this model through industry partnerships with manufacturers of more than 30 leading brands (Ford, GM, Mercedes-Benz, Toyota, Peterbilt, NASCAR and others) to create some of the most innovative and sophisticated education programs in the automotive, diesel, motorcycle, marine and motorsports industries. UTI's original equipment manufacturer partners invest millions of dollars in the development of curriculum, design of labs, and supplying of vehicles and equipment for the students' real world learning experience. Educators closely collaborate with manufacturers on curriculum development and training program and business representatives meet with educators, review curricula and recommend changes to align learning with industry demand [8].*
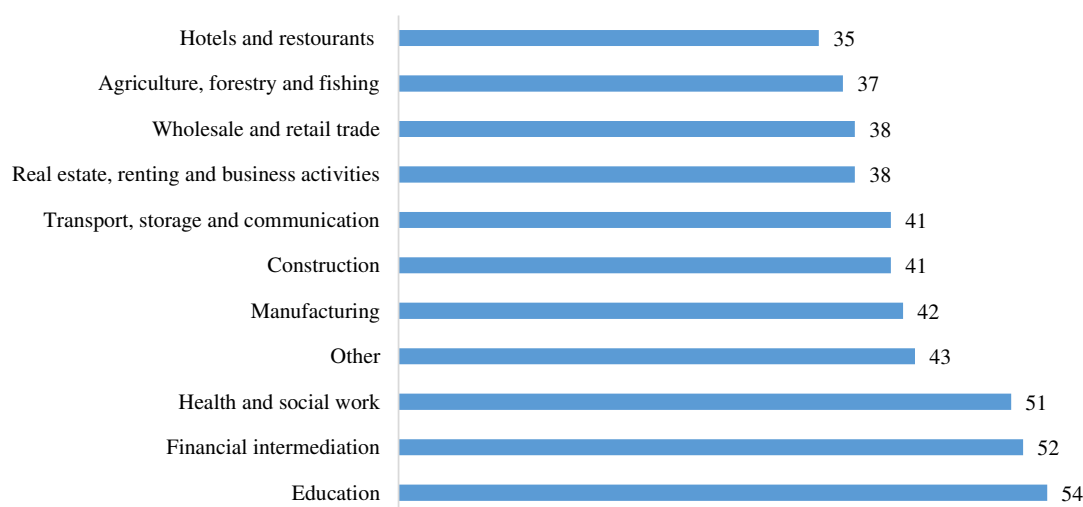


**Figure 3:** Employee preparedness be sector, % (% of employer respondents who state that new-hire employees were prepared; minimum 100 respondents per sector) [1].

## 3.  Conclusions and prospects for further research

Digital education can supply the framework to support new learning approaches that engage students, bolster new revenue streams, develop with business collaboration, cut operational costs and preserve highly valued school and university brands and reputations. For example, the ability to connect with outside experts or even lecturers with other schools and universities – both nationally and internationally – could increase the number of courses offered and attract more students [5].

Effective digital transformation isn't just about technology, though. It requires a willingness to adopt technology in new ways, beyond administrative process. It must be continual and evolutionary in order to enhance teaching and learning, support business processes and improve

efficiency. One of the risks of misunderstanding is that we buy into the idea that digital technology is magical pixie dust that will fix all the problems. But digital is the end point of the chain. In fact, the real change lies in the enablers to creating a great digital product or digital course – things like changing the way that course teams work, putting real structure into learning designs, course objectives and learning outcomes. That's the work that has the profound effect, not the fact that it's digital [7].

In most countries governments are not at the steering wheel of digitization, but they can certainly set the framework conditions. That's why universities need innovators and experts from government, business, research and education to work together to develop and implement new approaches for educating and supporting teachers so that they are well prepared and equipped to face the digitisation challenges [4].

The latest initiative, ICT for Everyone: A Digital Agenda for Sweden in 2011 reiterated that "Everyone of working age must have good digital skills to be employable or be able to start up and run businesses" [4].

# References

[1] Barton, D., Farrell, D. and Mourshed, M., 2013. Education to employment: Designing a system that works. Available from: https://www.mckinsey.com/industries/education/our-insights/education-to-employment-designing-a-system-that-works.

[2] King's College London, 2018. Available from: https://www.timeshighereducation.com/world-university-rankings/kings-college-london.

[3] McKie, A., 2018. Twice as many students skip all lectures when videos available. Available from: https://www.timeshighereducation.com/news/twice-many-students-skip-all-lectures-when-videos-available.

[4] OECD, 2016. *Innovating Education and Educating for Innovation: The Power of Digital Technologies and Skills.* Paris: OECD Publishing. Available from: https://doi.org/10.1787/9789264265097-en.

[5] Patton, R., 2018. Digital evolution: a new approach to learning and teaching in higher education. Available from: https://www.timeshighereducation.com/blog/digital-evolution-new-approach-learning-and-teaching-higher-education#su.

[6] The Cisco Digital Education Platform A Comprehensive, One-of-a-Kind Approach that is Changing Everything, 2016. Available from: http://web.archive.org/web/20200804005201/https://www.cisco.com/c/dam/en/us/solutions/collateral/industry-solutions/education/digital-learning-higher-screen.pdf.

[7] Thomas, A. and Morris, N., 2017. Is digital technology changing learning and teaching? The big debate from Digifest 2017. Available from: https://www.webarchive.org.uk/wayback/archive/20170701114820/https://www.jisc.ac.uk/news/is-digital-technology-changing-learning-and-teaching-15-mar-2017.

[8] Tkaczyk, J.M., 2016. Collaboration between Education and Industry: Key to Workplace Readiness. Available from: http://web.archive.org/web/20200920041025/https://www.pearsoned.com/collaboration-between-education-and-industry-key-to-workplace-readiness/.

[9] VSNU, 2017. Digitisation in academic education. Our agenda for a future-proof range of degree programmes. Available from: https://www.vsnu.nl/files/documenten/VSNU%20Digitisation%20in%20academic%20education.pdf.

[10] World Bank Group, 2018. ICT service exports (% of service exports, BoP). Available from: https://data.worldbank.org/indicator/BX.GSR.CCIS.ZS.