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Introduction

The development of new technologies affects the adaptation of traditional skills to new circumstances. Only digitally educated people will function successfully in digital environment, new dominant methods of communication, education and business require a development of digital skills. That includes active and creative use of technologies, but also critical relationships and safe online behaviour. Digital technology transformed and is still transforming the healthcare system. Using of Artificial intelligence (AI), Blockchain, new phone healthcare applications etc. will change even more the future of healthcare.

From the start of Covid pandemic, the use of contemporary technologies has become even more important in diagnostic, administrative and care support. While the Covid-19 is running the world, we have many possibilities thanks to digital technology such as digital communication, we can use digital literacy for professional career development, data handling and selecting information's for which we have real need and purpose, and digital identities.

Use of contemporary technology in healthcare – diagnostic, administrative and care support

Technology is considered the main force of progress in healthcare, and it is a subject of many changes and innovations. Technology has found its way in all areas of medicine, for example: ultrasounds, digital X-rays, the mammographer, computerized tomography etc. All these technologies are used for diagnosis, they are saving time, therefore we have better ways to treat and the success of the treatment itself has increased. (Howell, 2018)

Administrators must have the necessary skills and knowledge to use certain specific programs, must be well organized and ready to learn continuously as technology progresses. (University of Illinois, Chicago, 2020)

Nowadays, connection between healthcare professional and a patient is more facilitated. If there is a need for some advice or need to discuss some existing problems or symptoms, there are many ways to be in touch with doctors, also using the Internet, but attention is needed due to numerous incorrect information online.

Use of technology during Covid-19

During Covid pandemic, digital technology is extremely useful in hospitals. Medical staff can react much faster, which is very significant in these situations, intensive care patients are continuously monitored, their vital functions and abnormalities of vital functions are followed in every second. Each individual monitoring is joined into a central one, and if there is a deviation of vital signs, the medical staff on the central monitor can see which patient is in question, which room, which bed.

Some new technology applications are established, for example Singapore has launched phone application that detect short-distance, Germany has launched a smartwatch application that collects pulse, temperature, and sleep pattern data. (The Lancet Digital Health, 2021).

Technology helped many to stay in touch with their families, and many have started working from home. The ability to make video calls during isolation to maintain contact between families is facilitated. Also, because of improved technology it is possible to get new skills and knowledge through online courses.

Use of digital communication, collaboration, and participation

Jisc (Joint Information Systems Committee) defines digital communication, collaboration, and participation as: the capacity to communicate effectively in digital media and spaces (online forums, videos, social media), the capacity to participate in digital teams and working groups (collaborating using digital gears and media), the capacity to participate creation and facilitation of digital networks (participate in social and cultural life by using digital media and services). (Jisc, n.d.) Today we have wide selection of digital communication, and communication between healthcare users and healthcare professionals is on very high level: e-mails, smartphones, all sort of applications for smartphones, messaging etc. Digital collaboration, sharing data and digital participation in healthcare between healthcare professionals have big impact on the health care system. For example, with cloud identity healthcare professionals can see all users in their partner network.

Digital identity, well-being, and safety

Digital identity is an easy way for individuals to prove their identity online. This means that people can use their digital identity to access different services or products without being physically present.

For example, in United Kingdom exist GOV.UK Verify and it is a protected way for people to prove their identity online. There is no need for waiting in long lines or going somewhere with ID documents to show. It can be all done from home, almost instantly. Privacy is well protected, and government can track activity from citizens. (Government Digital Service, 2021)

The World Bank's Identification for Development (ID4D) Initiative helps "countries realize the transformational potential of digital identification systems." The world is becoming more connected, and digital identity systems turn out to be crucial element of infrastructure and economic development. (Kaelyn, 2019)

The use of digital literacy for professional career development

“Digital literacy is the ability to access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital devices and networked technologies for participation in economic and social life. It includes competences that are variously referred to as computer literacy, ICT literacy, information literacy, and media literacy.” (Manos & Silvia, 2018) A digitally literate person can connect sources of information, recognize the advantages and disadvantages of various forms of media, or, shortly said, manage the world of information and digital devices.

The [World Literacy Foundation](#) states:

Digital literacy = digital tools knowledge + critical thinking + social engagement.

Digital tools knowledge refers to using appropriate digital needed tools and making digital content. Critical thinking is important because there is much information during making research. Social engagement refers to communication with others, group actions, which asserts social capital and social norms. (Derera, 2021)

There are still some among us, although we are surrounded with technology, who prefer paper-based resources, because if the document is not saved it would be lost. Many employees are ‘scared’ to try new technologies or trying to use new apps, because without proper education mistake is bound to happen, which might lead to losing the data and breaking the system. (Klassen, 2019)

The relevance of technical proficiency for information, data handling

Today is still unclear what represents technical proficiency in business world. In one article from Fred K. Weigel and Benjamin T. Hazen is written about using a Delphi method and uncovering 16 qualities of technical proficiency, 14 common technology business needs, and 13 methods to assess proficiency. They describe technical proficiency 'as the skills required to operate and judge the quality of an information system (i.e., a computer hardware/software solution).' The Delphi method is a structured group decision support, multiple round technique. There are rounds, and the participants receive a scenario, questions, and a scheduled time, and they are providing answers to those requests. The round is end when the researchers gather the data to analyse and prepare for the next round. When round ends, the researchers produce the collected data, and give analysis and feedback to participants. The Delphi method can be used in multiplicity of situations. (Weigel & Hazen, 2014-02)

'Data is information output by a sensing device or organ that includes both useful and irrelevant or redundant information and must be processed to be meaningful' (Merriam Webster)

It is very important to obtain confidential data in every business. Appropriate data handling and privacy data handling is crucial because cyber-attacks are very frequent nowadays. Cyber-attacks in healthcare system may lead to many problems – network can go offline, or untrained people can obtain essential information related to health and social care and use it in different ways, so it is crucial to create decent protection.

Conclusion

At the end of the XVIII century, the steam engine marked the beginning of the First Industrial Revolution. In the middle of the XIX century, the Second Industrial Revolution followed, which overtook the previous one in terms of development, using electricity as the main energy source. In the 1980s the world witnessed the third, the so-called "Digital revolution". Digital revolution and use of computers and information technologies. We are on the verge of a new, Fourth Industrial Revolution with significant influences on healthcare system with use of AI, nanotechnology, robotics, smart cities, self-driving cars and other developing technologies, therefore the need of highly skilled and creative employees has risen. So, we must take that possibility and power, and shape Fourth Industrial Revolution focusing it on our main goals and principles. (Schwab, 2016)

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