

UDIGITALIZE

U-Digitalize Model

Chapter 2. Benefits & advantages of digitalization

Introduction

Most organisations now emphasise active participation in digitalization (Schneider, 2019). More specifically and concerning the health sector, the utilization of technology has led to a human-centred, citizen-centred health service delivery system. The term "eHealth" covers a wide range of tools based on information and communication technologies aimed at better prevention, diagnosis, treatment, monitoring and management of health and lifestyle. We are now in the era of creating an electronic patient record with the primary purpose of collecting long-term health information for patients. This electronic patient record has a range of benefits concerning not only the patient but also research. A range of medical information and records are now available preventing possible medical mistakes and unnecessary medical examinations (saving not only time but also medical cost). This information is also available for statistical analyses in order to be useful in research. Moreover, the use of digitalization in health provides a range of opportunities in therapy and prevention as well as a link between health problems and social services available.

It is true that this digital transformation of health has a number of problems that need to be solved such as ethical, legal and privacy issues. Nevertheless, the benefits and the advantages of this transformation are many and they have revolutionized health services. The purpose of this chapter is to focus on these benefits and advantages of health digitalization. The chapter is organized in three parts evaluating the advantages of digitalization by: accessibility of services, organization of workplace and services and finally communication.



Accessibility of services

Concerning the accessibility of services, the most powerful advantage of digitalization is making these services **accessible for all**. This includes equality in finding medical and health-related information for people who cannot move, see, hear or people who live in remote areas or people who do not have the opportunity to pay a private doctor. Moreover, the services provided are not of the minimum quality. On the contrary, services are usually provided holistically, from a multi-disciplinary and expert to the problem team including doctors, psychologists, social workers, nurses and/or physiotherapists. In this way, patients do not only have access to health services but also access which is difficult to find as it includes the cooperation of a range of specialized professionals.

Another important advantage of digitalized services concerns the **reduction of risks**. This aspect concerns frail older people who cannot move in order to reduce fall risk, caregivers who cannot leave the people who care alone in order to access medical facilities in order to reduce risk of burden but also people with special abilities in order to find solutions without moving from home, without risks of injuries. It is important that people who are either experiencing moving problems or do not have the necessary time/resources to go to the doctor could benefit from health care services “at home” in order to reduce also the risk of the existing problems becoming even worse because of negligence. By using digital services, users could have access to health care services from their house with just one click, reducing, this way, all the risks and finding the best care possible.

Moreover, new digital solutions have been recently created for people with special abilities & needs. These new solutions include **mental empowerment, tele-consultation and tele-medicine, tele-psychotherapy and peer group forums but also chat groups**. Tele-consultation and tele-medicine have been a life-saving experience during the pandemic. Doctors could use a platform in order to prescribe medication in real time without the need for the patient to come and pick it up. This created a solution for patients who had already a steady prescription of their medication that needed only renewal every three or six months. Moreover, it was a very good practice for patients who had already a diagnosis and could refer to their doctor in order to inform them about their follow up or new symptoms. Finally, in some cases, doctors could see through camera patients and try to define symptoms in order to attempt a diagnosis and prescribe medication. Nevertheless, this practice should be very careful and needs to be placed in a specific framework in order to avoid misjudgment.

Distant mental empowerment was also used and tested during the pandemic. Because of the urgency of the situation, many day care centers especially for people with dementia had been created and used this way in order to keep their patients active. Even if, in the beginning, many healthcare professionals were skeptical about the success of this technique especially with elderly population, it has proven to be a success and has kept patients active and busy during the quarantine of the pandemic. Moreover, caregivers were not abandoned as in the same time tele-psychotherapy and peer group forums were also available for them in order to support them with their daily care and the burden of caregiving in a very difficult period because of the pandemic.



Finally, an important advantage of digitalization in the healthcare system was the **inclusion of isolated areas**. The access to healthcare is no longer limited by time and space, which means avoiding unnecessary travel, expenses and fatigue. Technology has brought healthcare to more people, especially patients at risk of exclusion, which means more equal opportunities for everyone with an easy follow up and prescription. But the inclusion of isolated areas has to do also with the caregivers and the healthcare professionals working in these areas. A huge number of seminars and information is now available in order to have a better quality of life, a better understanding of the patient but also of their own needs and, because of this, a better treatment and less burden. An important advantage of these seminars is also accessible information about the patient's and the caregiver's rights, the available allowances that they might exist as well as the laws involved in the protection of the well-being of patients and caregivers.

Organization of services

Apart from the accessibility of services, digitalization has an important advantage concerning the reduction of distance and cost of services. Specifically, **cost effective solutions** had been created in health management in order for the health care professionals to give more concrete information, to be able to handle more specific questions and provide also tailored answers to specific needs. Another benefit of this was the efficient management of time and space of health care professionals. Most healthcare units suffer from a lack of space, they can see only some patients per day and professionals will consume more time per person. By using technology, professionals could work in any space (sharing offices or from home) and use less time per patient by answering specific questions each time. It was observed that during the pandemic period, healthcare professionals had organized their planning in a most efficient way as they did not experience the



problem of space. They could work in one office with their computer, a phone and a camera and did not need a special office in order to receive patients or caregivers one by one. This was also visible in the waiting lists of many healthcare services. Phone calls could be treated in real time in most of the cases as the professionals could work in parallel and without any space obstacle.

Furthermore, the support was clear and holistic and had led to a **reduction of unnecessary examinations and misuse of services** and, therefore, a reduction of healthcare cost. It was observed that there was a better collaboration between healthcare professionals and services as everything was shared in real time by a computer and the information was not lost or misplaced between them. There was a direct demand between services without waiting for an empty space or time schedule. Sharing information had been proven easier as everything was shared in a common drive, there was no need for a full update concerning a patient and nothing was lost in paper pencil notes. A patient or a caregiver could take all necessary information in just one call as the case was usually transferred from one service to the other without the need of booking a special appointment with the healthcare professional.

Finally, another important improvement of digitalization is that **information available for any responsible of a service** to judge if there is room for amelioration of services. This leads to a better organization and a better offer of services. The work of healthcare professionals is now online, it can be visible, their effort could be considered and praised, or, in case of a problem, it could be reorganized in order to be more productive and successful. Moreover, **opportunities for research** are more obvious and organized through digitalization. Responsible of healthcare units could have clearer and more organized ideas about research protocols that could be organized more efficiently as everything is now digital and information is available to all.



Communication

The third big chapter devoted to the benefits of digitalization is about communication of services. First of all, there is clearly **a flexibility for healthcare professionals to organise their work**. They can work from home, they can reduce workload, they can be more efficient and productive and with a more transparent working schedule. Moreover, digitalization creates **opportunities for healthcare professionals who live in remote areas** not only to be more informed and updated but also to expand their services through online services. This could also solve the problem of healthcare professionals who do not wish to stay in isolated areas because of their work limitation.

But the most important benefit of digitalization concerning communication is, with certainty, the **facilitation and the speeding up of lifelong learning and team efficiency**. Digital tools offer workshops, seminars and updates on health-related issues even every week. Healthcare professionals could be informed about new techniques, methods and services in real time. Important and international bibliography concerning healthcare is not only available online but also presented through online meetings of healthcare teams. Moreover, frequent meetings concerning various subjects lead to team bonding and exchange of experience between healthcare professionals. Through these meetings healthcare professionals are informed about the various services available (leading also to a better answer to patients' needs), get to know better their colleagues and their work and also, they feel a part of a multidisciplinary team. Furthermore, frequent team supervision and support through online guidance is possible to encounter problems like the burnout of healthcare professionals or harassment at work. Finally, problem solving, and enhancement of solutions is faster and more efficient as online meetings are easier to be scheduled and, for this reason, more frequent.

