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DIGITAL SKILLS IN HEALTHCARE

DIGITALS SKILLS AND RESEARCH
METHODS - BMSW4003

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INTRODUCTION

The Healthcare industry is rapidly emerging and adapting technological advancement in daily operations for professional career development and for enhancing communication, collaboration, and participation of digital tools in the workplace (Aceto, Persico and Pescapé, 2018). This study will help in gathering knowledge of how to improve digital skills within the workplace and how to develop an effective analysis of information and its translation into knowledge.

DIGITAL TOOLS AND TECHNIQUES TO IMPROVE EFFICIENCY IN HEALTHCARE

Technology and innovations in the healthcare industry lead towards improvement in the whole healthcare environment including its services delivery process, medications, and surgical interventions (Jayaraman et al., 2020). Following are the tools and techniques which helps in improving efficiency in the healthcare industry:

Advanced monitoring

With the help of the internet healthcare information and services can be accessed which helps in tracking particular illness, their treatments and managing health properly (Qi et al., 2017).

Improvement in healthcare operations

Technological advancement like mobile technology improves healthcare operations because of its mobility. It makes delivering interventions easy and allows real-time communication between patients and healthcare professionals (Niñerola, Sánchez-Rebull and Hernández-Lara, 2020).

Additional diagnostic services

By adopting e-health clinical process can be improved and its process can be performed with the help of mobile technologies which start from entering a request for additional diagnostic services (Mikail et al., 2018).

Faster emergency response

With the help of technology rate of response can become faster but the time of emergency which also helps in increasing the efficiency of healthcare (Power and Alison, 2017)

Patient safety

Information technology in healthcare creates such conditions that enhance patient's safety by integrating the competence and responsibilities of healthcare professionals (Simamora and Fathi, 2019).

DIGITAL LITERACY FOR HEALTHCARE PRACTITIONERS AND PROFESSIONALS CAREER DEVELOPMENT AND ITS IMPACT

Demand for better quality healthcare practices is increasing for the empowerment of managing their health because nowadays patients want to be autonomous. Digital skills provide tools that help in making all these things possible (Kuek and Hakkennes, 2020).

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- Health professionals must have communication skills, aptitude for data analysis, proper knowledge of medical devices compatibility, data protection program, using and enabling mobile application, (Blazheska et al., 2019).
- Health informatics professionals must skill like information security, software development, data-driven tools and design and implementation of tools to measure (Blazheska et al., 2019).
- The non-clinical and administrative staff possesses skills related to project management, computer knowledge and the use of healthcare software (Blazheska et al., 2019).
- IT professionals working in the healthcare environment must require skills like data privacy, information security, ethics, database management system and development and software engineering (Blazheska et al., 2019).

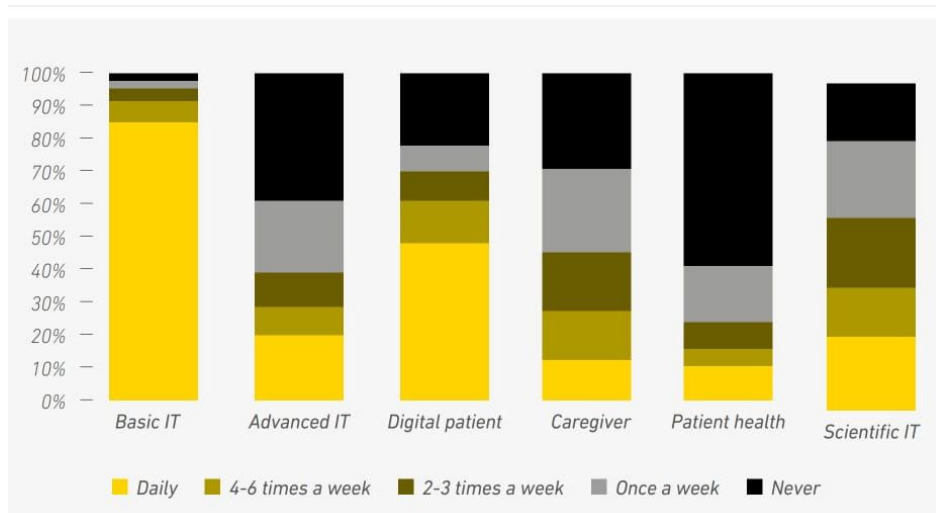


Figure 1 use of digital skills in current practice

Source: (Blazheska et al., 2019)

The need for digital skills is very essential in the healthcare sector and to get a better picture figure 1.

The impact of digital skills on health practitioners and professionals are discussed below:

- Improved accessibility in medical information and patient's data
- Digital skills have improved communication between patients and healthcare professionals
- It helps in keeping and storing electronic health records
- Provides online education which eliminated long-distance and consumes less time
- Health apps help patients in monitoring their health and disease, accessibility in test results and provide proper medical information

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- Telemedicine is cost-effective and helps in determining emergency assistance and provides online education and training to healthcare professionals remotely.

USE OF TECHNOLOGY DURING COVID-19

During pandemic or covid-19, an effort to maintain and improve situations various services shifted from offline to online which accelerated better results and generated new opportunity as well (Goldschmidt, 2020).

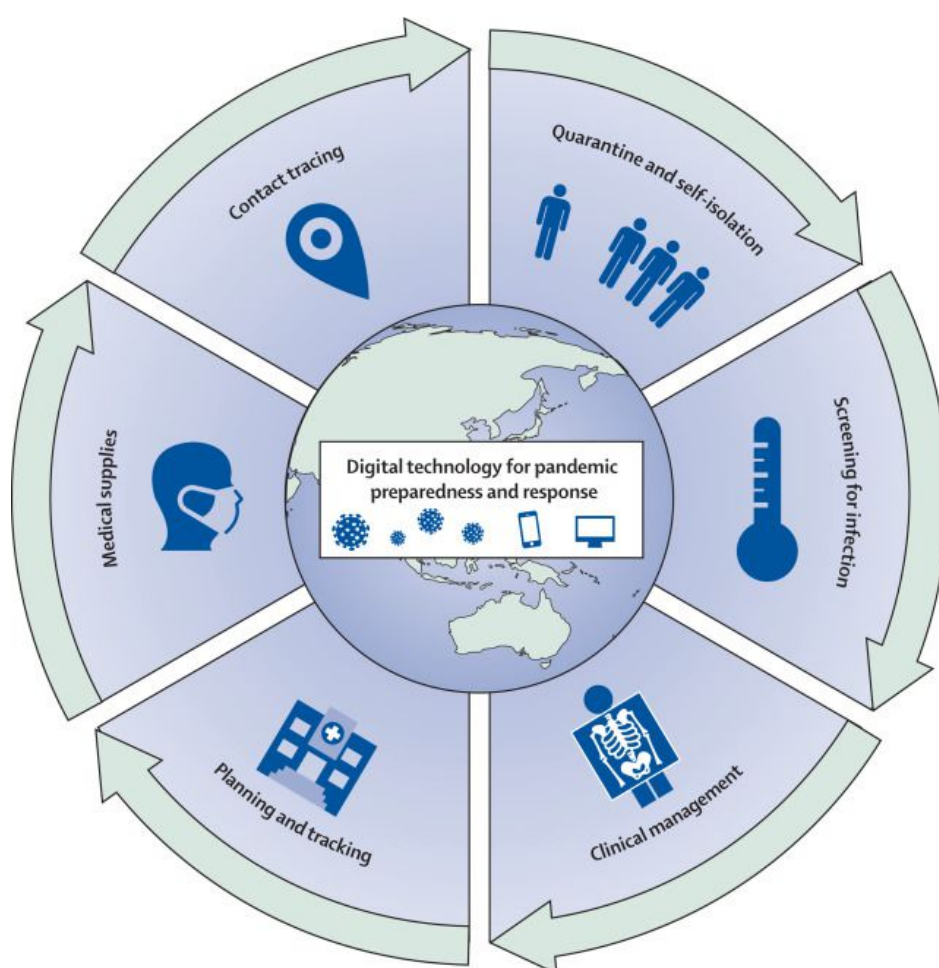


Figure 2 Digital technology used as a tool during covid-19

Source: (Ting et al., 2020)

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	Functions	Digital technology	Advantages
Tracking	Tracks activity of the disease in real-time	Migrations, data dashboards, machine learning and real-time data from smart devices	Shows visual depictions of disease forecasts information
Screening of infection	Screening of disease of individual and population	Thermometer, mobile apps, thermal cameras	Identifies testing and provides information about the disease
Tracking contacts	Tracks and identifies an infected person	Real-time monitoring from smart devices	Identifies infected person and tracks viral spread
Clinical management	Diagnose infected person, monitors status and predicts outcomes	Virtual care, artificial intelligence for diagnostics	Assists in clinical decision-making, enabling efficiency in services and facilitates controls

Source: (Ting et al., 2020)

USE OF DIGITAL COMMUNICATION, COLLABORATION AND PARTICIPATION

Digital communication

- Digital communication supports online learning through online tutorials, online lectures or classes, webinars etc.
- It offers online feedback which is digitally available
- Health professionals can exchange ideas through digital media
- Professionals can communicate in an effective way for the academic and professional purpose (Westlund, Krumsvik and Lewis, 2021).

Digital collaboration

- Supports professionals collaboration through digital tools and media which work effectively across the cultures
- Builds resources like digital writing and presentation for effective collaboration
- Increase participation of digital teams or groups (Westlund, Krumsvik and Lewis, 2021).

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Digital participation

- Builds digital networks with the help of participation
- Shares learning on appropriate digital learning platforms
- Encourages learners to work ethically in networking situations
- Facilitates digital learning networks (Westlund, Krumsvik and Lewis, 2021).

DIGITAL IDENTITY, WELL BEING AND SAFETY

Digital professionals carry so much responsibility as they are responsible for sharing and protecting data. They create and maintain positive contribution in digital spaces and develop certain ways to limit negative aspects as well (Burr, Taddeo and Floridi, 2020).

TECHNICAL PROFICIENCY FOR INFORMATION AND DATA HANDLING

To achieve expected goals technical knowledge and skills are required by professionals. Technical proficiency has levels that are discussed below (Razak, Bakar and Abdullah, 2020):

Level 1

- Under technical direction and supervision, basic and regular tasks are performed
- Technical skills and relevant knowledge is acquired by professionals
- Contributes theoretical concepts and understanding towards technical terms and methodologies

Level 2

- Acquire experience in data handling
- Broad knowledge of working at local and international practices in information and data handling
- Seeks professionals and specialists for collaboration of technical proficiency

Level 3

- Conduct scientific research and survey in information and data collecting
- Accomplish complex information and data handling tasks with technical supervision

CONCLUSION

This study concluded that health professional's acts as a gatekeeper of healthcare, therefore, it's very important for health professionals to have potential digital skills of health sectors to improve efficiency and effectiveness in preventing and curing diseases and empowering patients. During covid-19 digital skills played an essential role in tough situations in the healthcare sector.

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