



Module code: BMWW4003

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The use of contemporary technology in healthcare
(Diagnostic, Administrative and Care support)

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As vital as doctors and nurses are they rely on healthcare administrators to keep clinic's, hospital's and practise's running. Healthcare administrators are the people responsible for the day to day organisation

Administrative technology:

- Video conferencing
- Appointments via zoom/ facetime
- digital services by patients – prescriptions / Appointments
- **Virtual reality in Healthcare (Diagnostics):**
 - VR has the ability to transport you inside the human body.
 - Deliver's high quality surgical training.
 - VR has also been used to curb memory loss



Benefits of diagnostic Technology:

- Machine learning to support clinical decisions
- Capturing and comparing data
- Improved patient education / treatment

• **Benefits of VR in healthcare:**

- Improved patient education
- More internal details of medical imaging
- Entertaining and calming patients

• **What is contemporary technology?**

- Contemporary technology is science applied to practical purposes.
- Technology automates and extends things that previously had to be done by people.
- To improve medicines and treatments
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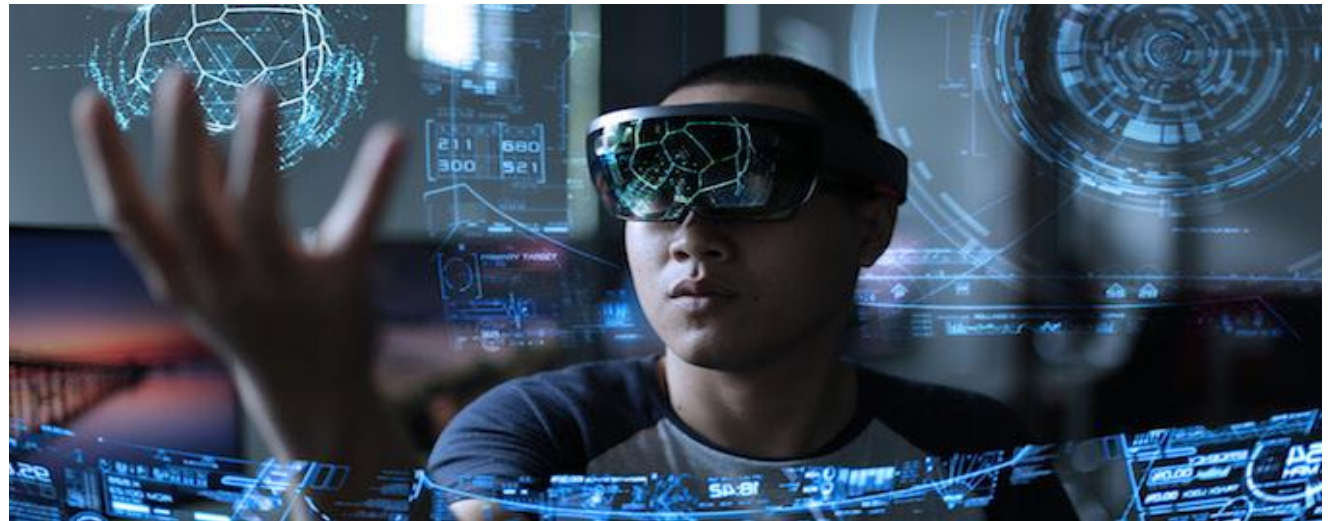
Pros V cons on VR

PROS

- Gives detail views
- Fun, artistic expression
- Patient safety
- Feeling of 'being there'

CONS

- Expensive hardware/Equipment
- Limited to certain procedures
- Complex technology
- Reduces connections with humans.
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Strom BL, Schinnar R, Aberra F, Bilker W, Hennessy S, Leonard CE, et al. Unintended effects of a computerized physician order entry nearly hard-stop alert to prevent a drug interaction: a randomized controlled trial. Arch Intern Med. 2010;170:1578–1583. [[PubMed](#)]

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The Strength of Primary Health care Nationally

- Strengthening primary health care: a national imperative Across the world, the pursuit of more equitable, comprehensive and integrated models of health care was first inspired by the Declaration of Alma-Ata in 1978, which encouraged a focus on primary health care towards “the progressive improvement of comprehensive health care for everyone, and giving priority to those most in need” (1). Forty years later, countries are coming together to reaffirm their aspiration and collective imperative to strengthen primary health care as they reinterpret the goals of Alma-Ata in a contemporary context (2). This brief highlights the opportunities created by digital technologies in achieving the vision for primary health care.
Digital technologies: a force for change Information and communication technologies were newly emerging when the Declaration of Alma-Ata was agreed four decades ago. At the time, the adoption of these technologies in health services was complex, costly and limited.

Changing Force in Digital Technology

- The commonplace technologies of today such as smart phones, tablets and laptop computers did not exist. However, by 1990 new technologies – notably, the Internet – had begun to have a revolutionary impact. As they became more advanced (3), more assimilated in all sectors and mainstream in society these technologies have shown remarkable value for health. From technologies that allow people to manage their health more effectively, to better ways of diagnosing disease, to monitoring the impact of policies on population health, digital technologies for health, or digital health, are having a profound effect on how health services are delivered and how health systems are run. The impressive trend in national policies for digital health¹ (more than 120 countries by 2015) (4) reflects the firm commitment to use digital technologies to advance the Sustainable Development Goals, support universal health coverage and shape the future of primary health care.

Conclusion

Digital technologies have already opened up a wealth of possibilities for shaping the future of primary health care and ensuring effective public health action. They have catalysed a host of changes in education, policy and practice as well as created new patterns of communication, empowerment and engagement. A recommitment by governments to the goals of primary health care and its values of inclusiveness and equity promises more changes to come, with digital technologies central to the vision and its realization

Rederences

- 1. Primary health care: report of the International Conference on Primary Health Care, Alma-Ata, USSR, 6–12 September 1978/jointly sponsored by the World Health Organization and the United Nations Children's Fund. Geneva: World Health Organization; 1978. (http://www.who.int/publications/almaata_declaration_en.pdf, accessed 17 September 2018).
- 2. Global Conference on Primary Health Care. Towards Health for All. Media centre. World Health Organization (<http://www.who.int/mediacentre/events/2018/global-conference-phc/en/>, accessed 17 September 2018).
- 3. Greatest engineering achievements of the 20th century. The National Academy of Engineering. (<http://www.greatachievements.org/?id=3824>, accessed 17 September 2018).
- 4. Global Observatory for eHealth. Directory of eHealth policies. World Health Organization. (<http://www.who.int/goe/policies/en/>, accessed 17 September 2018).

The Use of Digital Literacy for Employee Wellbeing and Professional Development

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Course Name and Number: Digital Skills and Research Methods-BMSW4003

Instructor's Name: Amitave Banik

- Digital literacy in healthcare describes the ability of healthcare professionals to seek, discover, understand, and assess health information from different electronic sources .
- Digital literacy provides employees with the ability to classify, describe and examine information needs, and, repossess pertinent healthcare information by use of different healthcare technologies including the internet (Kuek & Hakkennes, 2020).
- Health care professional apply this knowledge in addressing and solving health problems.
- In healthcare, digital literacy is important for evidence-based care.
- It is linked with better health outcomes due to improved services(Kennedy & Yaldren, 2017)..

- The use of digital tools has the likelihood of improving services for those receiving care leading to patient-centered experiences and improving employees' wellbeing's.
- Routine procedures are streamlined. For instance, automated IV pumps helps in measuring correct dosage of medication
- This produces a faster process for changing the amount and dosage of drips.



Source: Lee, P. (2015). Infusion pump development and implications for nurses. British Journal of Nursing, 24(Sup19), S30-S37.

- Digital literacy leads to better staff experiences. Digital tools such as Microsoft Word and Excel; process digital information and content improving the roles of healthcare staff.
- Healthcare staffs feel more empowered and satisfied with their roles(Kuek & Hakkennes, 2020).
- A digitally literate employee possess the necessary capabilities to find, assess, utilize, share and create content using information technologies thus delivering care more efficiently.
- Digitally empowered health services provide additional time for clinicians and healthcare employees to dedicate to the individuals and populations who need their services.
- Digital improvements lead to less repetition of activities, reducing the possibility of miscommunication thus increasing patient safety.

- Digital literacy helps staff to feel more equipped and comfortable and equipped operating in a digital workplace.
- It improves employees' confidence due to increased social connection amongst the staff.
- An employee in a digitalized work environment has decreased anxiety and a general improved mental health.
- Digitally knowledgeable staffs are more efficient since they readily recognize essential information, data, information, or information pattern and exploit them effectively.
- Digital literacy abilities enable employees to use technology for both collaboration and connection with each other and therefore strengthen teamwork

- Under career development, digital literacy will facilitate key scientific innovations, quickening the establishment of new treatments and vaccines to help in fighting diseases.
- Career development will facilitate AI-generated knowledge that will impact diagnosis and treatment choices, resulting in safer and more effective treatments hence greater satisfaction for employees (Kennedy & Yaldren, 2017).
- For instance, AI-enabled digital treatments and improved recommendations will enable employees to prevent health problems from developing.
- Additionally, Healthcare providers will likely deliver the right treatments and interventions at the particular moment required by the patient.

References

- Kuek, A., & Hakkennes, S. (2020). Healthcare staff digital literacy levels and their attitudes towards information systems. *Health informatics journal*, 26(1), 592-612.
- Kennedy, S., & Yaldren, J. (2017). A look at digital literacy in health and social care. *British Journal of Cardiac Nursing*, 12(9), 428-432.

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Thank you.

- Thank you for listening, I will now pass you onto my team members to cover each bullet point which is

The relevance of technical proficiency for data and information handling

Group presentation (RITHA)

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- The NHS has found the data to be a valuable resource. It has aided in the decrease of work logs. Health professionals no longer had to sift through thousands of files to find information about their patients thanks to the data.
 - Everything is saved on a computer, and they can access all of the information in under a minute, allowing them to respond quickly.
 - Patient information can also be transferred quickly between departments and hospitals. Data has also aided the government in keeping a good track record of certain illnesses in order to better deal with them in the future.
 - It has also aided in bettering the organisation of things by assisting with better shift organisation.
 - With the use of data the NHS has become more organized and more modern with a faster response to some of the most vulnerable Patients.

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