

Digital Skills and Research Methods (BMSW4003_LON)

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Contemporary Diagnostics Technology In Healthcare.

- **Neurotechnology**

Neurotechnology includes all the components that are developed to understand the brain. (Burke, 2022)

- **Artificial Intelligence**

AI has proven valuable in early detection of disease early and faster confirming and accurate diagnosis. (Burke, 2022)

- **Virtual Reality**

VR has also greatly improved the training process for medical professionals, because it allows you to be transported to the human body. (Burke, 2022)

Continuation.....

❖ mRNA Technology

MRNA can code encode almost any protein, so the same basic technology could also allow us to develop a variety of treatment by causing the body to produce a drug-like response. (Burke, 2022)

❖ 3D Printing

3D printing can be used to print pills containing multiple medications, which will help patients organize, time and monitor multiple medications. (Burke, 2022)

❖ Precision Medicine

Personalised medicine is more effective than other type of treatment because it attacks tumor based on a patient's genes, causing genetic mutation that makes them more susceptible to destruction by cancer drugs. (Burke, 2022)

Contemporary Administrative Technology To Healthcare.

➤ Medical Billing And Claims Processing

Using software designed to simplify this process does more than free up your staff time (they can be used to focus on improving other areas of your practice. (The receptionist, n.d.)

Patient Scheduling Software

Medical scheduling software can help solve all of these problems by making the scheduling process easier, more efficient, and less error-prone. (The receptionist, n.d.)

Patient Portal Software

There are many benefits to giving patients online access to their own health data. (The receptionist, n.d.)

Contemporary Care Support Technology To Healthcare

✓ Computerized Physician Order Entry

It improves legibility and order processing time, reducing the risk of medical error. (Acog, 2015)

✓ Patients Engagement Tools

While increasing patient engagement, it also introduces questions about the reliability of the data. (Acog, 2015)

✓ Automated Self Populating Templates

It was designed to save time that could inadvertently lead to inaccurate medical records. (Acog, 2015)

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Digital Literacy For Employee Well-Being And Their Professional Career Development (Teaching, e-learning and self-development)

- Yoanna Uzunova (2124312)
- Digital Skills and Research Methods (BMSW4003_LON)
- Lecturer: Amitave Banik

What is digital literacy?

Knowledge and ability to find, use, create and share contents using information technology and the Internet.

Components of digital literacy:

practical technical skills

collaboration skills

social and cultural skills

critical thinking





Digital literacy in healthcare

e-Health literacy- health services and information delivered or enhanced through the Internet and related technologies.

Digital literacy in nursing.

How health literacy can boost health outcomes.

Real-time monitoring of patient, a shared system between GPs, digital photography apps and accompanying database.

More efficient ways of working- digitally enabled health service could release time for healthcare workers to devote to the people who require their services.

Teaching, e-learning and self-development

- Health Literacy and its importance to improving the safety and quality of health care.
- Individual health literacy- the peoples can obtain, process, and understand the basic information and services they need to make appropriate health decisions.
- E-learning for healthcare- increase technological skills, increasing health literacy among people at risk, promote healthy lifestyle changes.
- Digital health literacy as a social decisive of health.
- How Can We Address Health Literacy?
 - trainings to teach health professionals and others who provide health information about health literacy best practices
 - creation of health literacy centres for health professionals
 - creating and providing health materials in an understandable language in different languages

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- National Library of Medicine (n.d.) *An Introduction to Health Literacy* [Online], Available at: <https://nnlm.gov/guides/intro-health-literacy>, (Accessed 18.April.2022).
- University of Sunderland (2021) *Digital Literacy in Healthcare* [Online], Available at: <https://online.sunderland.ac.uk/digital-literacy-in-healthcare/>, (Accessed 18.04.2022).
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Changes in health care during the COVID 19 pandemic

- Over the past year, the NHS has experienced extraordinary times of challenge and change.
- Above all the incredible effort and commitment shown by health service workers in responding to the impact of COVID19
- Equally important is that services must quickly adapt to the new realities of delivering health care in the midst of a pandemic.

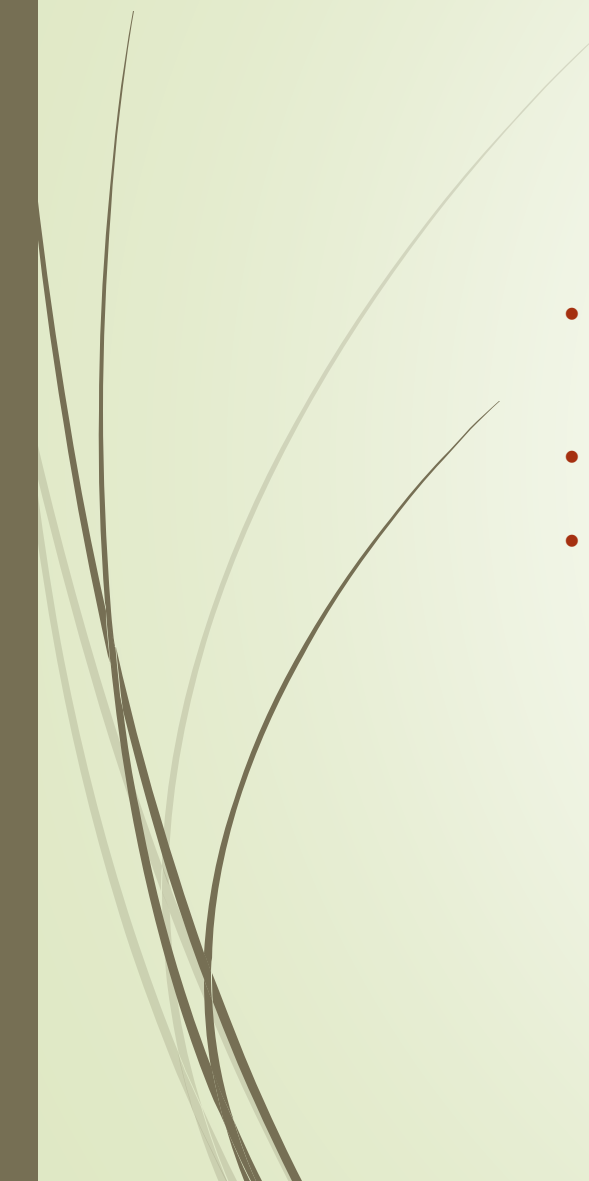


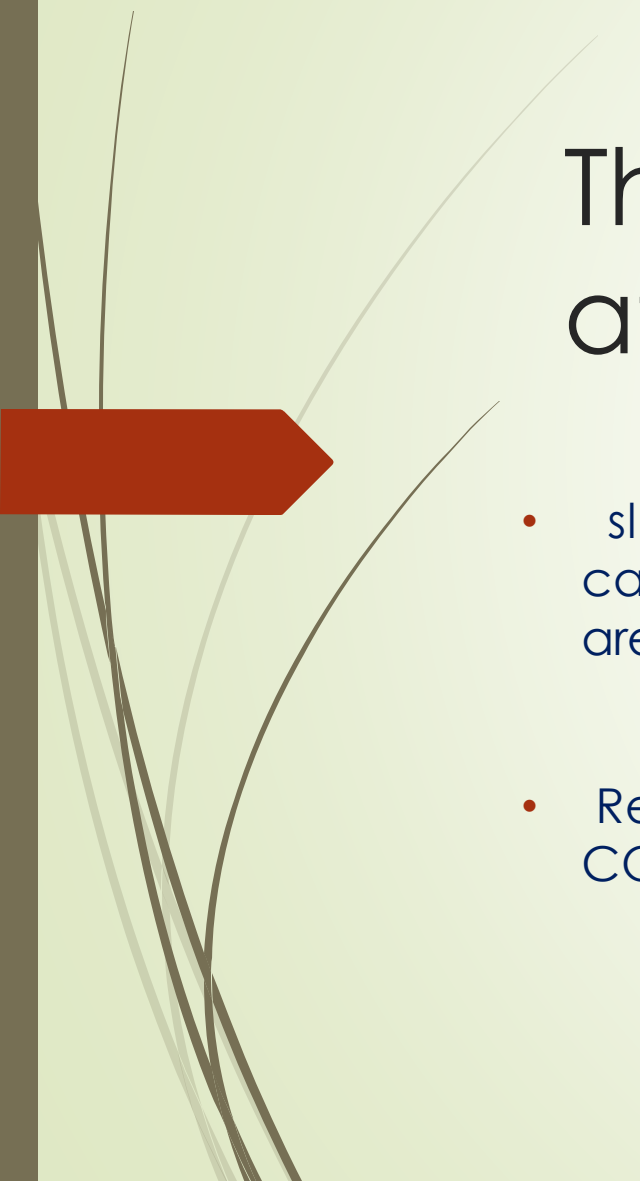
The increased use of technology

- Some of the most notable developments have involved greater use of technology to reduce face-to-face contact and help manage demand.
- This includes increased use of established technologies and platforms: *more phone and video consultations in primary and secondary care and video consultations in primary and secondary care; wider use of devices and apps for remote working at home, including as part of virtual wards; increased use of the Electronic Prescribing Service; and wider use of the NHS website and NHS 111 online.*



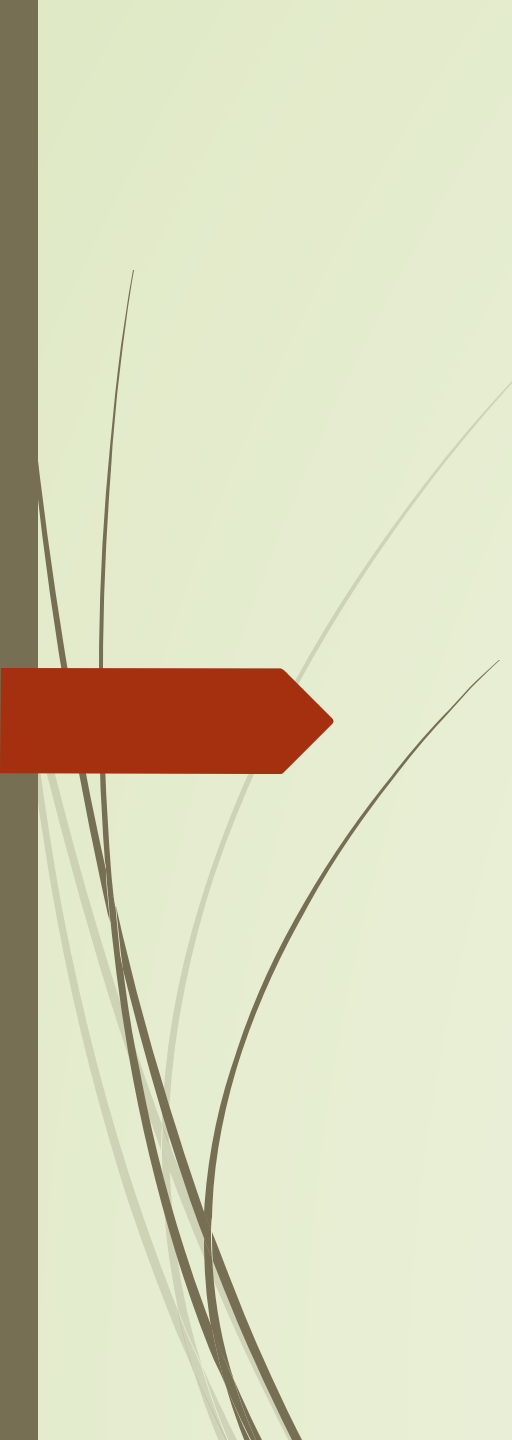
COVID-19 has also accelerated the uptake of newer technologies and platforms, such as the:

- NHS app for appointment booking and patient record access; the rollout of video conferencing software
 - professional-to-professional support for clinical decision-making
 - the use of AI-driven image analysis to help diagnose and monitor the progression of COVID-19.
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Though the NHS has previously attracted criticism for being:

- slow to adopt and rollout new technologies, recent developments show it can do so at impressive pace and scale when conditions allow and staff are empowered to make change happen.
- Recent Health Foundation research on the service shifts accelerated by COVID-19 highlights some key factors that enabled these developments.



Moving Forward...

So, as we move beyond the emergency phase of the pandemic there will be a need to revisit aspects of implementation in order to evaluate these technology-enabled approaches and develop them further.

Particularly important will be recognising that adopting new innovations effectively requires more than simply putting them in place – ongoing work may be required to adapt and tailor them to local context and generate optimum outcomes. In many cases, the necessity during the pandemic might have been to get ‘good enough’ versions of new approaches working, but few teams will have had extensive opportunities for testing, iterating and refining them.