

Digital skills and Research Methods

Group 1 Report

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Task 1 : Report

Summary

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Appropriate structured report that evaluate the use of ;

- Contemporary technology in healthcare (diagnostic, administrative and care support)
- Technology during Covid -19
- Digital communication, collaboration and participation
- Digital identity, well-being and safety
- Digital literacy for professional career development (teaching, e-learning and self development)

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Introduction

In 1920, medical records were written on papers. The purpose of it was to keep data and medical records in confidentiality.

According to today's world, the use of technology has become necessary and easy to keep records on every patient in clinic, Gp, hospital, pharmacy and community cares.

If you don't know your NHS number, just by giving your details such as your name, address and date of birth any health sector should be able to trace your details.

Such as the NHS, social care sector, the use of technology it's a must but an appropriate training will be needed.

The use of contemporary technology in healthcare (diagnostic, administrative and care support)

The use of contemporary technology in health and social care has improved in computers, robots to help healthcare sectors to be more powerful but it has reduced communication between patients, doctors and access to see patients.

The Covid 19 pandemic has radically changed the way healthcare delivers services. Everyone has to adapt to the use of digital technology and the way services are delivered not by choice but by necessity such as video calls. I don't personally agree with the idea.

Patients will come to the hospital in case of an emergency only.

Even though the UK is at the forefront of the world in health technology and the NHS has the biggest world health institution, Again it all has to be done with confidence and fully trained to avoid wrong diagnosis.

Since 2017 to the present, because of Covid 19 pandemic, the health technology in the UK keeps on progressing.

In accordance with progressivity, I found 19 UK healthtech companies that offer healthcare platforms solutions.

Founded	Compagnies	Descprition
Septembre 2014	Babylon	Easy access to healthcare service.
November 2015	Cera	Provides pensioners with homes carers who can offer support with medical issues, wellness and personal services such as shopping.
August 2011	Huma	Provide digital health insights from patients through remote monitoring systems. example:NHS monitor, Covid patients who are self isolating at home.

July 2013	Push Doctor	In partnership with the NHS to provide patients with on demand GP such as consultation online.
August 2016	DoctorLink	Platform for patients to book appointments and access medical advice.
August 2005	Lumeon	It's a platform to coordinate careers and patients during the day.
September 2014	LumiraDx	It's a diagnostic system that combines a small, portable instrument, test strip.
September 2010	Zava	Known as DrEd, its online diagnostic and prescription service to replace GP appointments.
July 2015	Oviva	Digital health created a series of remote nutrition and lifestyle programmes to help users manage their health condition.
February 2014	Doctor Care Anywhere	Provides access to digital healthcare such as prescription, telemedicine service.
July 2014	Current Health	Current health monitors its patient's health and wellness.
July 2015	DNAudge	It's a genetic testing service, which provides tailored food recommendations based on their DNA.
July 2012	Oxehealth	It's an optical sensor to remotely measure an individual's pulse and

		breath rate.
August 2016	Unmind	Mental health platform that helps businesses to improve their employees mental wellbeing.
March 2006	VivoSight	It's a medical scanner used by dermatologists to diagnose non melanoma skin cancer.
August 2012	LabGenius	Its biopharmaceutical company developed a platform capable of discovering high value proteins.
October 2015	Thrive	Offer testing and tracking services to enable individuals to proactively monitor and manage their health.
February 2011	Lantum	It provides an online staffing management platform which helps NHS fill empty shifts.
June 2012	Lightpoint Medical	It's a developed technology that can detect the presence of cancer cells in real time during surgery.

Published by digital social care NHSX, using data from helpline, between 20th April and the 19 June 2020 high period of Covid 19, the helpline have been contacted by 176 people, 55% from resident care services, 23% from homecare providers and only 22% from other services such as community care and supported living.

During that pandemic, under the governance requirement, i must admit that the use of technology was huge and rapidly changed healthcare providers sectors. Enormous digital tools have been made available by the government to be used in healthcare.

Healthcare should now start using trackers.

The use of technology equipment is a challenge for some healthcare providers, some complaints have been raised concerning the use of navigation according to the needs of people they support.

While monitoring, care management systems and digital solution incompatibilities have been found one of many reasons why some providers are still using paper records sheets.

James Palmers programme head for social care at NHS said "supporting care service providers to become digitally mature has always become important during the pandemic"

Digital communication collaboration and participation / The use of technology during Covid-19

Digital communication is a data transmission and data reception transfert over point-to-point or multipoint communication via optical fibers.

A.I* solution, stand for artificial intelligence solution. It's a computer vision that analyzes and interprets what is in picture or video. It uses computer vision to accelerate intelligent automation with tools for image processing, image recognition and object detection.

While researching, i found the 3 best A.I* solution already in place in the listed below:

COMPAGNIE	FUNDED	DESCRIPTION
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Congenita		Clinical decision support platform provider for uk NHS Genomic medicine service.Enable healthcare professionals to make important clinical decision and offer effective genomic medicine that transform patient lives
Bios	1975	Able to to automatically extract the neural signal regulation physiological biomarkers.
Kheiron medical technologies	2016	Breast cancer detectors use image recognition combined with insight from radiologists to detect malignancies in mammograms.

We all know that digital communication is changing the world in terms of the education and healthcare sector.

It provides indefectible experience to customers and it eliminates the needs for face to face interactions.

In the healthcare sector majority are developing in technology use, especially during Covid-19 Hospitals, doctors, carrer are using different tools such as chatbots, pagers, and telehealth or handoff as digital communication, and technology during the pandemic.

Chatbots: it's a software application used to conduct an outline conversation via text or speech, in lieu of providing direct contact with a live human agent.

A form of interaction between human and machine.

Here a relevant 3 top chatbox app in the UK:

COMPAGNIE	Description	Funded/ location

OneRemissiom	To help and ease the life of those involved and fight against cancer with information about diet, exercises and post cancer practices.	Jun7, 2018 New York
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Youper	The ap features personalized meditation, track mood and monitored health via communication with the app.	2016 San francisco
Safedrugbot	It's a chat messaging system that assists and supports health professionals doctors whose needs appropriate data about the use of drugs during breastfeeding.	

Chatbots connect patients with medical problems, diagnosis or treatment.

If chatbots are unable to solve any medical question it will automatically transfer the patient to the real life doctor.

Hand-off/Handover

It's_a communication tools system by which the responsibility for immediate and ongoing care is transfered.

It normally occurs when responsibilities are passed to the next professional crew within the team.The actual responsible will have to hand over the patient data such as name, health condition that need to be aware and also can be used to update the patient's health condition.

With technology development healthcare sectors are encouraging employees to use application digital communication tools to do the handover and avoid record sheets one of the main reasons is the Covid-19.

PAGERS

Launched in 1950 used by physicians in the New York city area. The pager was transmitting single messages only within 40 kilometres from the transmitter tower.

Today 2021, the health and social care secretary bans the use of pagers from the NHS.

Matt Hancock has ordered the removal of pagers for non emergency communication by the end of 2021. Pagers will be replaced by mobile phones and apps for better accurate communication at low cost for all the staff.

Following some research, pagers only offer one way form of communication without knowing who is messaging, the reason or the emergency level; the department of health and social care conclude that using pagers only waste time and do not share the information on move

appropriately comparing to apps or mobile phones, they believe those new technology gadgets are more convenient to use for digital communication as its save time and reduced cost. Pagers will only be used for emergency situations such as hospital in case of wifi failure or other form of communication is not available.

Telehealth

It's a video conferencing consultation between patients, doctors or health educators without physical contact.

There is a possibility that telehealth is currently solving a lot of medical issues in healthcare. Since telehealth has taken the succession, most healthcare providers are saving time meaning, no need to travel anymore; instead they do video conferences which can be an ideal telemedicine for some but in contrary inconvenient for others like me.

Digital identity wellbeing and safety

It's some information about a person, company or electronic device that exists online.

People will use their personal information to create an account online, those details can be pseudonymous profiles instead of real details providing information such as username, passwords or date of birth.

In healthcare, digital identity, its an healthcare electronic patient record system to assist and share medical information efficiently and securely.

One of the digital identity tools in healthcare is provided by DXC.

DXC stands for digital cross connect system to switch network equipment, used in telecommunications networks.

This equipment will accurately match and share patient records and all the patients details will have better up-to-date details.

Another beneficial way of the software is while moving GPs, all the patient's information will be transferred avoiding all the paper based processes.

Averall, digital identity wellbeing and safety is a responsibility toward digital people, it's very serious. people in charge within healthcare department is responsible for keeping and protecting data; they need to understand the importance of creating digital identities for personal or professional use because of the impact of breaching safety, security and wellbeing rules.

It's illegal not to respect online or digital audience interaction inappropriately; it can also impact an individual or organisation reputation.

Wellbeing

It's all about how we look after our personal health, safety, relationships and work life balance. The capabilities of digital identity, wellbeing and safety are strap and support together.

The use of digital literacy for professional career development (teaching, e-learning and self development)

Digital literacy from American library association is the ability to use information and communication technologies to find, evaluate, create and communicate information requiring both cognitive and technique skills.

DL*education is more than reading a text online; it does require specific skills to be able to read some context hyperlinks, graphs or charts.

DL* is important because most students in class or doing e-learning are looking to the internet for any information needed and the students who are digital literate will easily know how to find or share digital contents.

When you have literacy skills, it's much easier to understand the basics of internet safety such as creating passwords, privacy settings, knowing what to share on social media and the perils of cyberbullying.

In most places such as work, education and administration the use of digital skill has become necessary.

Conclusion

Personally, I think that digital communication has and will have an impact on our lives in many ways. The healthcare sector also seems to be opposed to accepting the mixture of communication tools.

In accordance with healthcare, keeping medical records data safe endures a big concern for the government and regulation around the UK mostly in the actual health crisis COVID 19.

Due to the pandemic, the use of technology has become necessary and according to Dr Manket Nijja physician, he said that "NHS should have a universal view of patient data and a simple permission procedure at least internally" because actually there is 270 hospitals in NHS and none of them trust each other when it comes to digital identity sharing.

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Abbreviation

DL: Digital literacy

A.I: Artificial intelligence