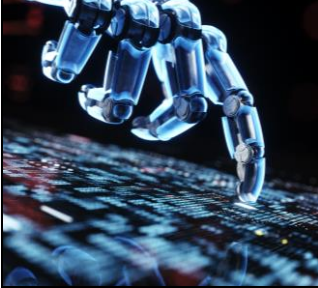


Slide 1



Group Presentation
Module: Digital Skills
and Research Methods
ID: BMS4003
Lecturer: Anilave Banik

Group 5:
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2125267
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2119752

Slide 2

SACREE MWEPU: 2121661
TABLE OF CONTENTS

- The use of contemporary technology in healthcare (diagnostic, administrative and care support)
- The use of contemporary technology in healthcare(Administrative)
- The use of contemporary technology in healthcare(Care Support)
- The use of contemporary technology in other department.
- A variety of use of contemporary technology in healthcare
- References

Slide 3

The use of
contemporary
technology
in healthcare
(diagnostic)

♦ **SACREE MWEPU:2121661**

- ♦ Retrieval of accurate, timely, and reliable native and imported data;
- ♦ A system the user wants to interact with Easy;
- ♦ Simple and intuitive data displays;
- ♦ Easy navigation;
- ♦ Evidence at the point of care to aid decision making;
- ♦ Enhancements to workflow, automating mundane tasks, and streamlining work, never increasing physical or cognitive workload;
- ♦ Easy transfer of information to and from other organizations and clinicians; and
- ♦ No unanticipated downtime.
- ♦ The NHS Constitution(2022)

Slide 4

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The use of contemporary technology in healthcare(Administrative)

- Ensuring compliance with financial regulations
- Implementing and improving strategies
- Managing staff members and resolving HR-related incidents
- Marketing and developing a business
- Monitoring and analysing quality indicators and outcomes
- Overseeing the daily operations of various departments
- (Bronzino J 2000)

Slide 5

The use of contemporary technology in healthcare(Care Support)

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- Helping patients to move around.
- Monitoring patients and performing basic health checks
- Making patients feel comfortable.
- Washing and dressing patients.
- Serving meals and helping to feed patients.
- (Goodman R 2010)

Slide 6

The use of contemporary technology in other department.

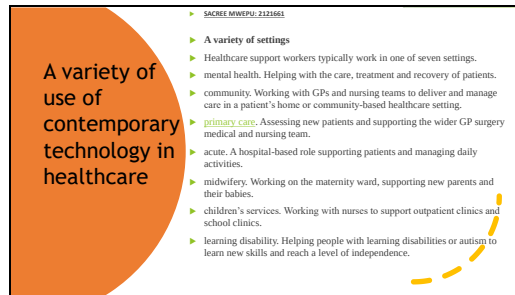
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If you're based in a health center or GP surgery, you may:

- ▶ perform health checks
- ▶ take blood samples
- ▶ process lab samples
- ▶ sterilise equipment
- ▶ restock consulting rooms
- ▶ undertake health promotion and education work



Slide 7

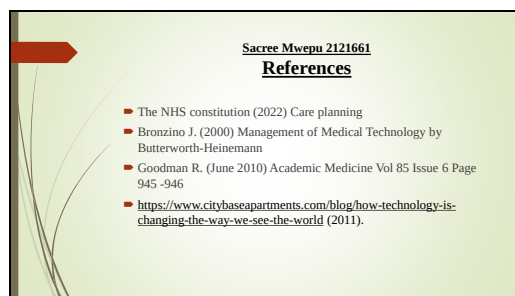


A variety of use of contemporary technology in healthcare

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- ▶ **A variety of settings**
- ▶ Healthcare support workers typically work in one of seven settings.
- ▶ mental health. Helping with the care, treatment and recovery of patients.
- ▶ community. Working with GPs and nursing teams to deliver and manage care in a patient's home or community-based healthcare setting.
- ▶ primary care. Assessing new patients and supporting the wider GP surgery medical and nursing team.
- ▶ acute. A hospital-based role supporting patients and managing daily activities.
- ▶ midwifery. Working on the maternity ward, supporting new parents and their babies.
- ▶ children's services. Working with nurses to support outpatient clinics and school clinics.
- ▶ learning disability. Helping people with learning disabilities or autism to learn new skills and reach a level of independence.

Slide 8

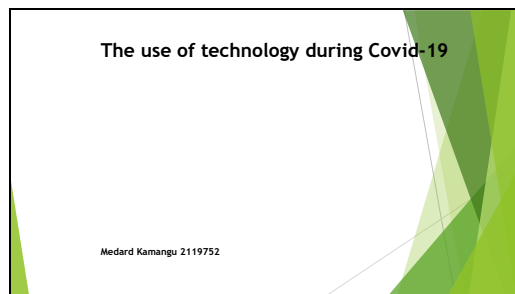


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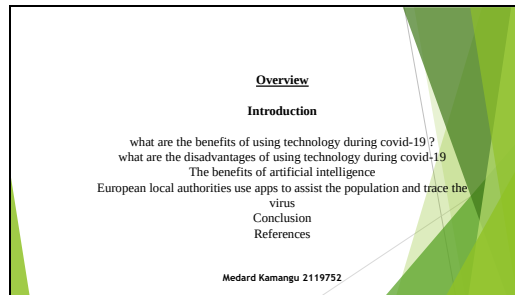
Slide 9



The use of technology during Covid-19

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Slide 10



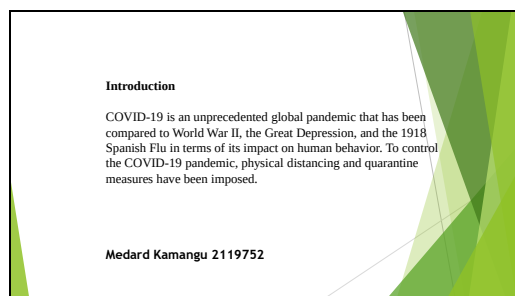
Overview

Introduction

- what are the benefits of using technology during covid-19?
- what are the disadvantages of using technology during covid-19?
- The benefits of artificial intelligence
- European local authorities use apps to assist the population and trace the virus
- Conclusion
- References

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Slide 11

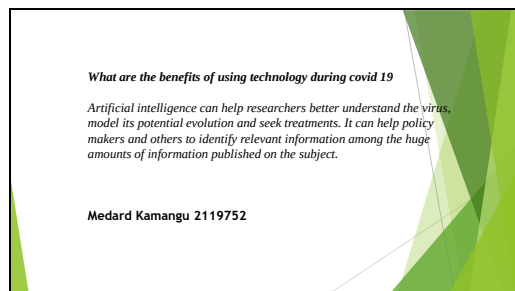


Introduction

COVID-19 is an unprecedented global pandemic that has been compared to World War II, the Great Depression, and the 1918 Spanish Flu in terms of its impact on human behavior. To control the COVID-19 pandemic, physical distancing and quarantine measures have been imposed.

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Slide 12



What are the benefits of using technology during covid 19

Artificial intelligence can help researchers better understand the virus, model its potential evolution and seek treatments. It can help policy makers and others to identify relevant information among the huge amounts of information published on the subject.

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Slide 13

What are the disadvantages of using technology during Covid 19

SERIOUS MALFUNCTIONS IN THE UNITED STATES

The United States has also experienced dysfunctions in the collection and processing of health data. Traditionally, the US Centers for Disease Control and Prevention (CDC) used a surveillance system from a local to federal level to track the spread of outbreaks. "This method has encountered many difficulties with incomplete feedback and an analysis that is too slow in the face of the rate of spread of the virus", notes the study.

The digital divide disadvantages some of Europe's most vulnerable people - a significant proportion of the 163 million people who do not have access to a reliable broadband internet connection - when it comes to accessing information at weather, real people need to respond to COVID-19. This is a problem not just for people without broadband access, but for society as we struggle to flatten the curve of COVID-19.

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Slide 14

The benefits of artificial technology

Artificial intelligence can support researchers in better understanding the virus, mapping its potential evolution and searching for cures. It can help policy and decision makers to identify relevant information in the massive influx of research on the subject. AI systems can also help improve public access to information or be used by large IT companies to detect fake or misinformation on the virus.

However, the use of location data on a large scale can have consequences for data protection, privacy and informational self-determination. The most controversial developments are linked to population surveillance and the enforcement of physical distancing measures, both aspects that are particularly visible at the local level.

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Slide 15

There are currently over 45,000 medical studies available as part of the White House COVID-19 data center known as CORD-19. This data hub is considered "the most expansive collection of machine-readable coronavirus literature to date".

AI researchers are encouraged to sift through the data to gain unique insights into disease incubation, treatment, symptoms, and prevention.

The amount of data available is too large for humans to sort through page by page. Using artificial intelligence and machine learning algorithms to identify key data elements will bring a faster understanding of the big picture.

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Slide 16

European local authorities use apps to assist the population and trace the virus

European local and regional authorities are using various types of mobile applications to locally tackle the spread of the virus. The Region of Catalonia (ES) has developed an app that allows individuals to enter their symptoms, receive a diagnosis and be monitored by the health services. Since mid-March, the app has been downloaded over half a million times. The collected data is used to map the virus' spread.

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Slide 17

Conclusion

Going forward, we expect there will continue to be an increasing focus on technology as a key driver for delivering solutions in the private and public sectors. As the standards and governance models for these technology-optimized solutions are deployed more widely, it will be important for relevant parties to be aware of developments in this rapidly evolving field.

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Slide 18

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Slide 19

THE RELEVANCE OF TECHNICAL PROFICIENCY FOR DATA AND INFORMATION HANDLING:

INCREASINGLY IMPORTANT

- . ORGANIZING DATA ABOUT PEOPLE GENERALLY
- .HELPS IN PREDICTING DISEASE OUTCOMES
- . DETECTING WHEN TO INTERVENE WITH WHO
- . ESSENTIAL DATA COMES INTO EVERY ASPECT OF THE WORK THAT IS BEING DONE,

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Slide 20

THE RELEVANCE OF TECHNICAL PROFICIENCY FOR DATA AND INFORMATION HANDLING:

- From a government perspective such opportunities are relayed through data predictions in which assist to staff appropriate levels of people in A&E departments.
- Loads of different options and benefits for both health care professionals and patients.
- Diagnosis and treatment options could be of such risk and cost with the factors of increasing the length of treatment, higher budget and the most effective decisions through utilizing those resources in an effective way.
- Data collected as the function of preventing false analysis on a patient's health and to be aware of the risks in misdiagnoses as you could also be causing more harm to the patients instead of helping them get better.

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Slide 21

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- Modern artificial intelligence and machine learning approaches in medicine health and social care is one of the very biggest application areas.
- Health care professionals need to automate tasks in order to bring benefits to the patients and the care users, also the professionals providing the care at hand.
- Medical research data has a big impact (the more data you have the more effectively you will be able to identify whether you have to diagnose a patient, how to treat a patient through a specific method identified to them or a generalized method of treatment to a set of patients)
- Artificial intelligence systems can use the data that they've been given plus the model they've inferred from that data to identify when a patient is beginning to show signs of decline hypothetically. In this case scenario this will allow for health and social care professionals to be dispatched as appropriate.
- 'Early warning signals' because of the large amounts of data that had already been collected which suggests a change in method has to be in motion.

Slide 22

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- Moving away from the idea that us human beings at fixed intervals towards the idea that we're being monitored continuously by artificial intelligence techniques.
- This illustrates to us how unique data can support the delivery of care to everyone in need using individual specific data as well as trends from data from wider groups to create meaningful findings on how to improve care to individual patients.
- The use of digital technology in health and social care can improve quality, efficiency and patient experience as well as supporting more integrated care and improving the health of the population.