

Digital Skills and Research Methods

BMSW4003 LON

**The use of technology, digital tools
and techniques to improve efficiency
in the health and social care sector.**



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Content page:

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

The use of technology during COVID -19. Alisha

The use of digital communication, collaboration, and participation. Violeta

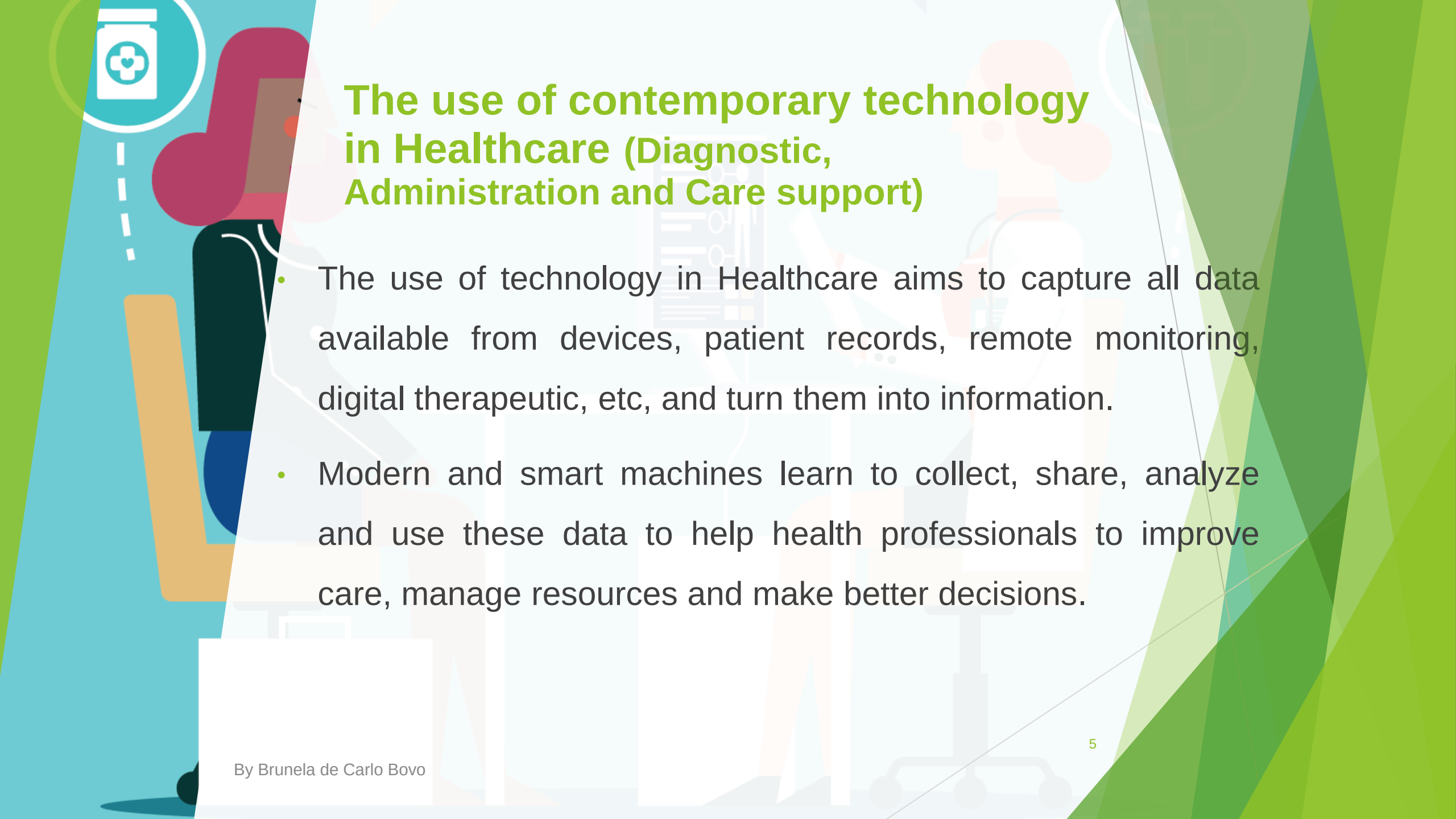
Digital identity, well – being and safety. Iva

The use of digital literacy for employee well – being and their professional career development (teaching, e-learning and self – development). Brunela

The relevance of technical proficiency for data and information handing. Ana

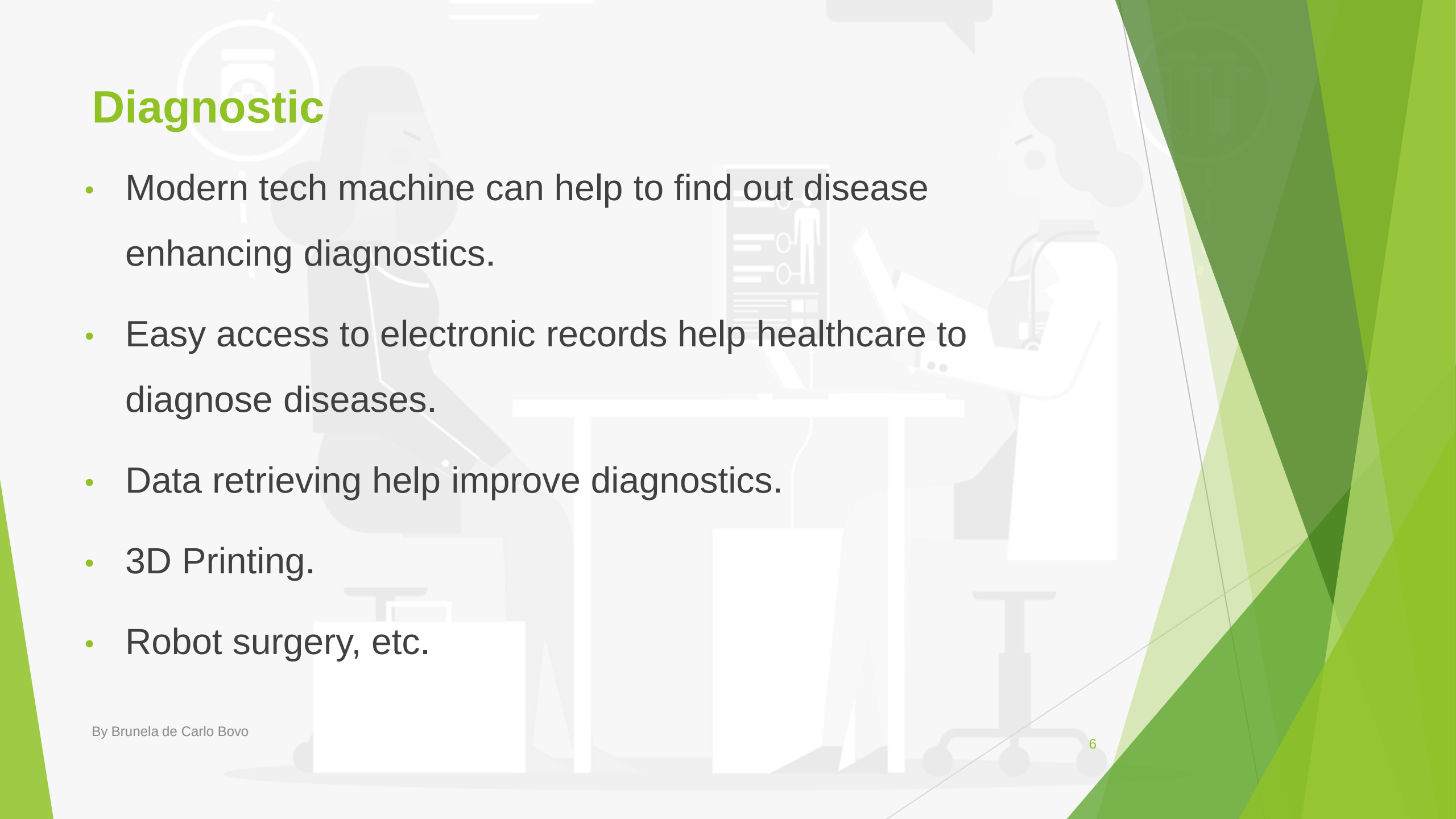
Introduction:

- The world is being transformed by technology, from convenience, entertainment, business, etc, and now we realized that a data-driven is also transforming Health.
- Currently, as a result of the Covid 19 pandemic, the importance of a reliable interchange of data between health systems and between countries has called attention.
- Furthermore, there is a great potential for acceleration and digital change in all sectors of health. Focusing on results and accessibility to health through the contemporary technology.

A stylized illustration in the background shows a doctor with long red hair and a white lab coat, wearing a stethoscope, attending to a patient. The patient is lying down, and the doctor is leaning over them. The scene is set in a clinical environment with a blue wall and a white chair. A green geometric shape is on the right side of the image.

The use of contemporary technology in Healthcare (Diagnostic, Administration and Care support)

- The use of technology in Healthcare aims to capture all data available from devices, patient records, remote monitoring, digital therapeutic, etc, and turn them into information.
- Modern and smart machines learn to collect, share, analyze and use these data to help health professionals to improve care, manage resources and make better decisions.



Diagnostic

- Modern tech machine can help to find out disease enhancing diagnostics.
- Easy access to electronic records help healthcare to diagnose diseases.
- Data retrieving help improve diagnostics.
- 3D Printing.
- Robot surgery, etc.

Administration



- Make easy communication between healthcare professional providers.
- Enhance the safety of medication.
- Reports and the track of those medications.
- Quality of service provide.
- Easy access to data.

Care Support

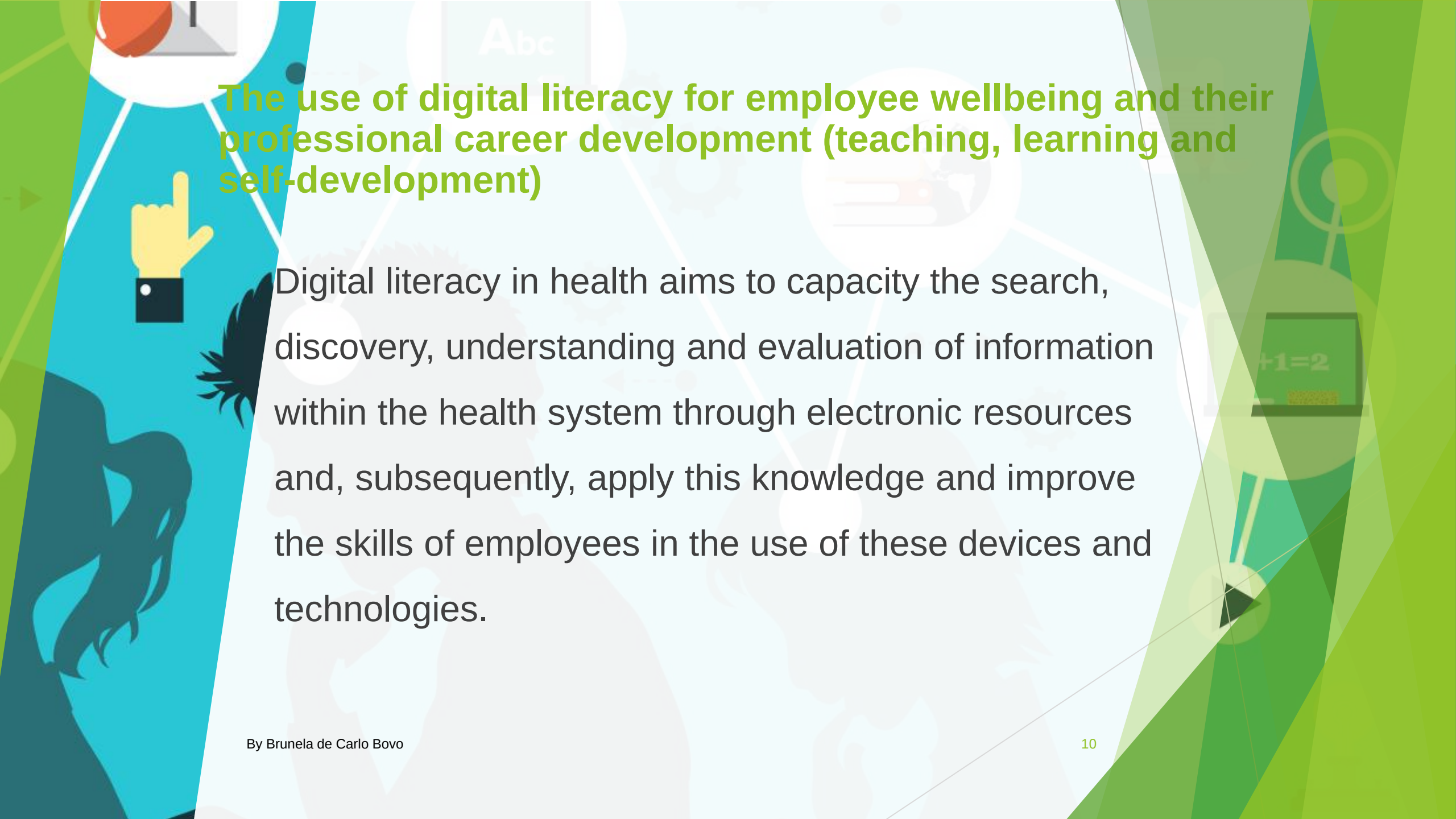
- It makes the patient safer and reliable.
- Healthcare centers embrace more electronic records.
- Easy access to patient to get their own information, like portals, text messages, emails, etc.
- Technology contribute to healthcare improve communication with patients.
- Social economics/demographics can be a barrier.

The positives and the barriers

The health care digital services have been changing the way professionals and patients handle their participate in the health and care, more information is available online, improving the service and bringing better results.

In the other hand the inconsistency in digital health literacy and access to information and portals carry on with vulnerable population, and barriers front on by people who have a limited health literacy go on in digital world.

Healthcare sector should provide accessibility for all users, so a universal precautionary point of view should be considered when designing Digital Health.



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

Digital literacy in health aims to capacity the search, discovery, understanding and evaluation of information within the health system through electronic resources and, subsequently, apply this knowledge and improve the skills of employees in the use of these devices and technologies.

Employee wellbeing and Career development

- Enhancing communication.
- It helps works to connect and communication with each other.
- Empower team workers.
- The use of digital literacy for Healthcare works will to be more efficient and effective.

Employee wellbeing and Career development

- Shortening administrative tasks.
- Enhancing self-education.
- Enhancing personal achievements.
- Helping identify lacking the education and how and where to improve it.

Teaching, Learning and Self development

- Renovating the literacy in healthcare workplace.
- Helping on the critical thinking.
- Making teaching more interactive.
- Electronic research provides information for self-learning.
- Software for E-courses training.
- Update Skills.

Teaching, Learning and Self development

- Great opportunity to set up and develop in the modern digital world.
- Possibility to get efficiency when accessing all kinds of content, also spiritual and material things.
- Helps to feel fulfilled and happy in personal and professional life.
- Allows to create or find how to use online resources to achieve personal and professional life.

The use of Technology during COVID - 19

The application of technology during the Covid-19 pandemic was timely.

Many medical professionals have had to adapt to ways of using technology such as telemedicine, replacing face to face contact at such a vast pace to limit the spread of covid-19.

Furthermore virtual reality (VR) also played a role among the medical professionals.

Roles of virtual reality

Medical training

Treatment for patients

Pain management

Physical therapy

Addiction

Fitness

Marketing



By Alisha Gocaj

Advantages of VR

The background features a stylized illustration of a healthcare professional, possibly a nurse or doctor, wearing a white lab coat and a VR headset. The professional is holding a clipboard and looking down at it. The background is composed of various geometric shapes in shades of blue, green, and yellow, creating a modern and tech-oriented aesthetic.

Improves health and safety

Helps with the wellness of patients

Makes life in healthcare easier

Aids professionals teach their students.

Reduce healthcare/training costs

Digital transformations in the Medical Field

- Digital transformations in healthcare are to enhance the outcomes for patients and healthcare efficiency, streamlines risk reductions, and reduces the burden on the benefits the medical practitioners and the institutions that they work in.
- The virtual reality technologies are to enable anybody to embrace innovations which revolutionise the medical industry for the better.



By Alisha Gocaj

Digital identity, well-being, and safety

Digital Identity Trusting

- 1.The connection between a real identity and a digital identity requires someone validates it or, proves that a user is who they say they are.

A digital identity involves some form of authentication, a way to prove that you are a person really when using digital connections .

- 2.There are a number of recommendations of the digital strategy;

1-Protection Measures.

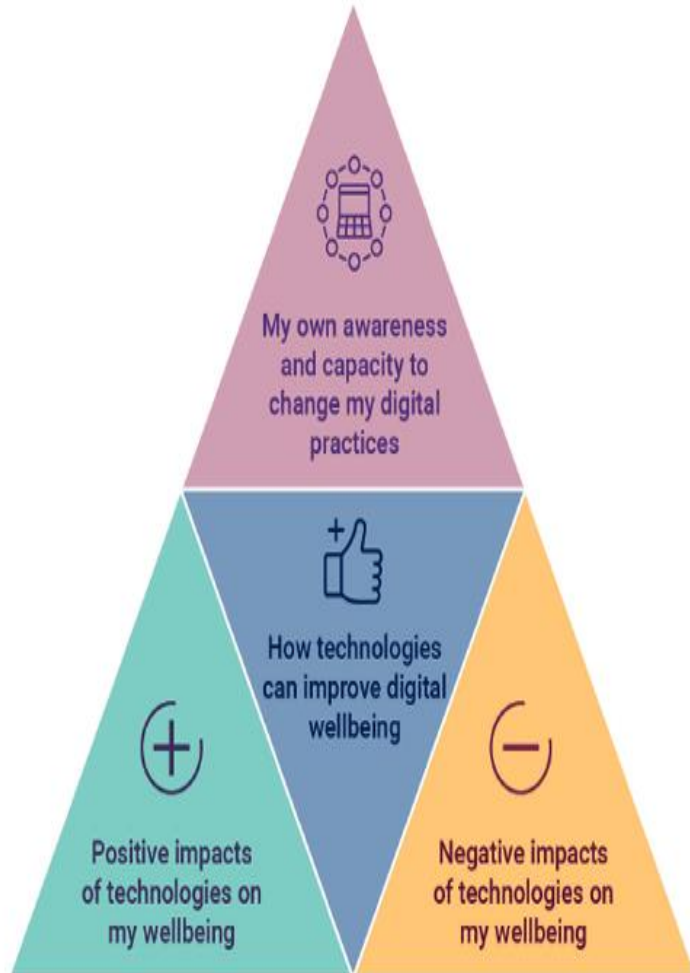
2-Limit the information which you provide in Social Medias.

3-Do not use public networks or unprotected wi-fi networks.

4-Always use strong passwords

"What is Digital Identity
- Definition and
examples
(arimetrics.com)"

Well-being, and safety.



- My own awareness and capacity to change my digital practices
- How technologies can improve digital wellbeing
- Positive impacts of technologies on my wellbeing
- Negative impacts of technologies on my wellbeing

Tools to create safety digital account.

- ▶ Blockchain as a base for building a digital identity infrastructure offers great advantages:
 - Accountability. Every entry and change are reflected in the system.
 - Security. Distributed storage prevents unauthorized changes in information in the system.
 - Availability. All you need to create a digital account is to access the Internet.
 - Manageability. Managing a digital account is easier than paper documents.

Digital Identity Safety:
Internet Can Be Secure
(fcegroup.ch)

Iva Emilova Yakimova



Safety

When it comes to keeping vast volumes of continually updated data, trust is a must. Users can trust data privacy and security thanks to decentralised data storage systems and one-way encryption.

When establishing, verifying, and controlling identity is decentralised, a crucial component that provides trust is required.

This is a blockchain-based system that continually checks data and allows you to detect incorrect or hacked data in real time. This degree of protection will allow users to conduct financial transactions while keeping their personal information private.

The relevance of technical proficiency for data and information handling

In technical proficiency you need to be flexible as digital tools develop and are introduced into the work place environment.

Technical proficiency is the key element in the frame work. Therefore you must be able to adapt quickly to meet the needs of the modern workplace.

Data management

The focus of data management is recording and presenting information in a way that is useful to other people:

- ▶ Graphs
- ▶ Charts
- ▶ Topics
- ▶ Blog
- ▶ Math programme
- ▶ science



Types of data handling

Data handling usually comes in two parts:

Qualitative data:

Observation

Documents

Audio recording

Photographs

Video recording

Quantitative data:

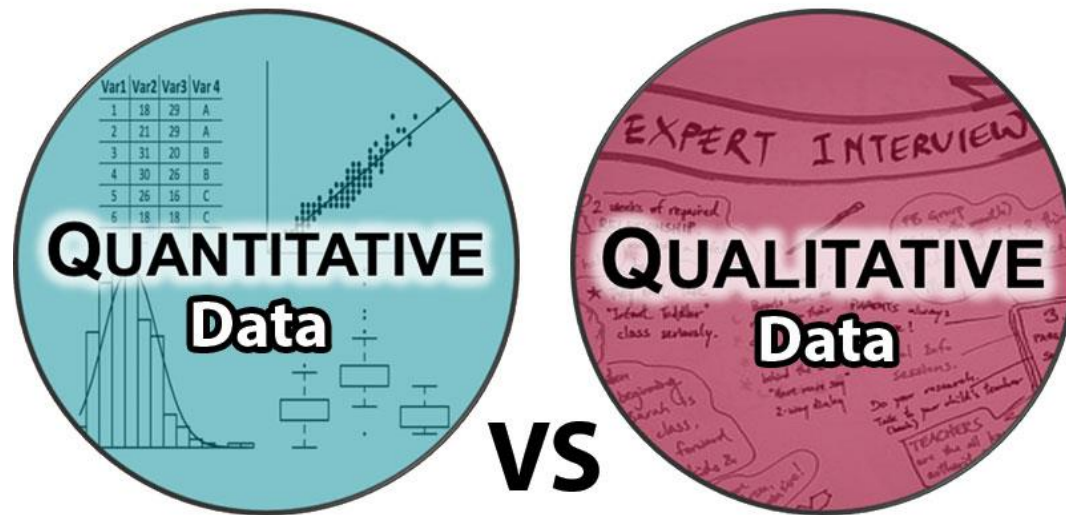
Projections

Quantification and qualitative data

Measurements

Calculation

Sensors



- Quantitative data is a scientific term, which means it's data can be counted and measured and given a numerical value.
- Qualitative data allows observes to quantify the environment which they live.

The use of digital communication, collaboration and participation

Communication has improved a lot over the years using technology. All the notes and data can be kept in each patient record or stored in a cloud for the staff to be able to access it anytime they need to. Some examples are:

- Social media
- E-mails
- Photo sharing
- Video

The above also improved the collaboration between the staff and patients, or leagues in passing easy the information to each other. Examples are:

- Share files
- Complete task lists
- Working online projects

This also means, all mostly done via online meeting, at taking decisions regarding a patient joining in real-time different time.

Digital Participation

Participation has improved a lot with the evolution of technology. The internet helped people participate, communicate and share information in real time from everywhere around the world.



Some bad conclusions about digital communication

- Falling for scams
- Accidentally downloading malware
- Cyber Predators
- Mistakes in sending prescriptions
- Easy misunderstanding

Conclusions

- Having stated all of this, we've come to the conclusion that technology is all around us.
- It was made by people to assist people as long as it is utilised for a good cause and used with caution.
- Its widely used in the healthcare system, as well as in our everyday lives to let us communicate, travel, and pay for items.

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**Thank you for watching our
presentation!**

We hope you enjoyed.

Any Questions?