

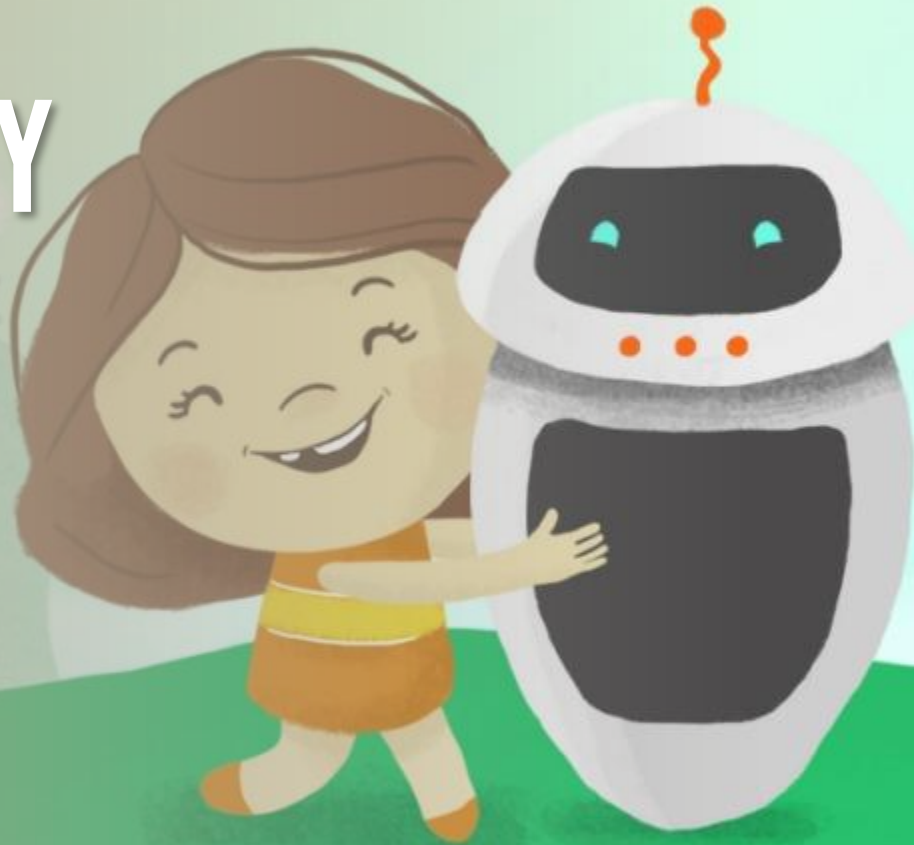


Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

CONTEMPORARY

TECHNOLOGY

IN HEALTHCARE



LAURA
Algorithm of Life

DIGITAL SKILLS AND RESEARCH
METHODS / BMSW4003_LON

CERTHE SKILLS FOR THE WORKPLACE (HEALTH AND SOCIAL CARE)



GROUP MEMBER'S

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ZINETTY DOS PRAZERES

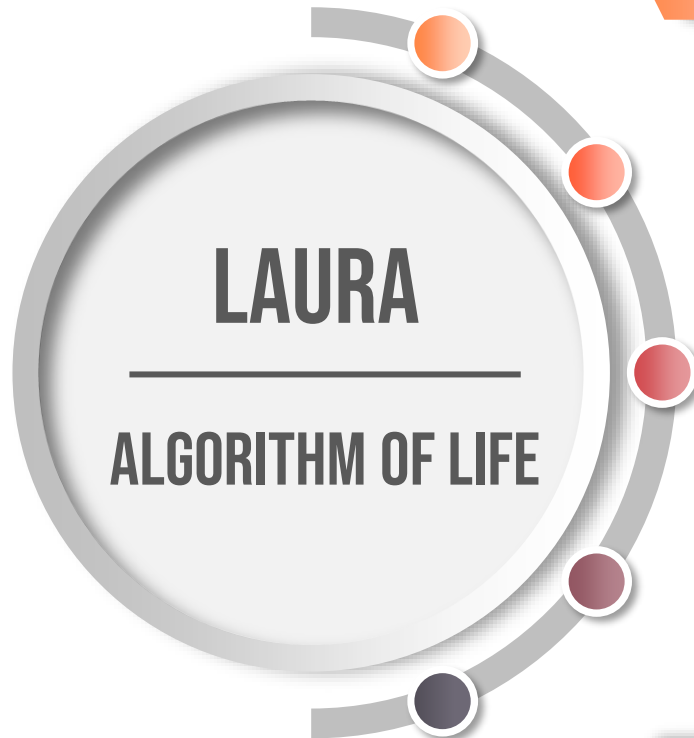
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KOUSHIK MODAK

Lecturer



LAURA IN HEALTHCARE

- HISTORY / DIAGNOSTIC / ADMINISTRATIVE SUPPORT



ROBOT LAURA DURING COVID-19

- LAURA CARE : PA DIGITAL



DIGITAL COMMUNICATION / DIGITAL IDENTITY WELL-BEING AND SAFETY



DIGITAL LITERACY FOR EMPLOYEE

- TEACHING E-LEARNING AND SELF DEVELOPMENT



RELEVANCE OF PROFICIENCY FOR DATA AND INFORMATION HANDLING

TOPICS

LAURA IN HEALTHCARE

HISTORY

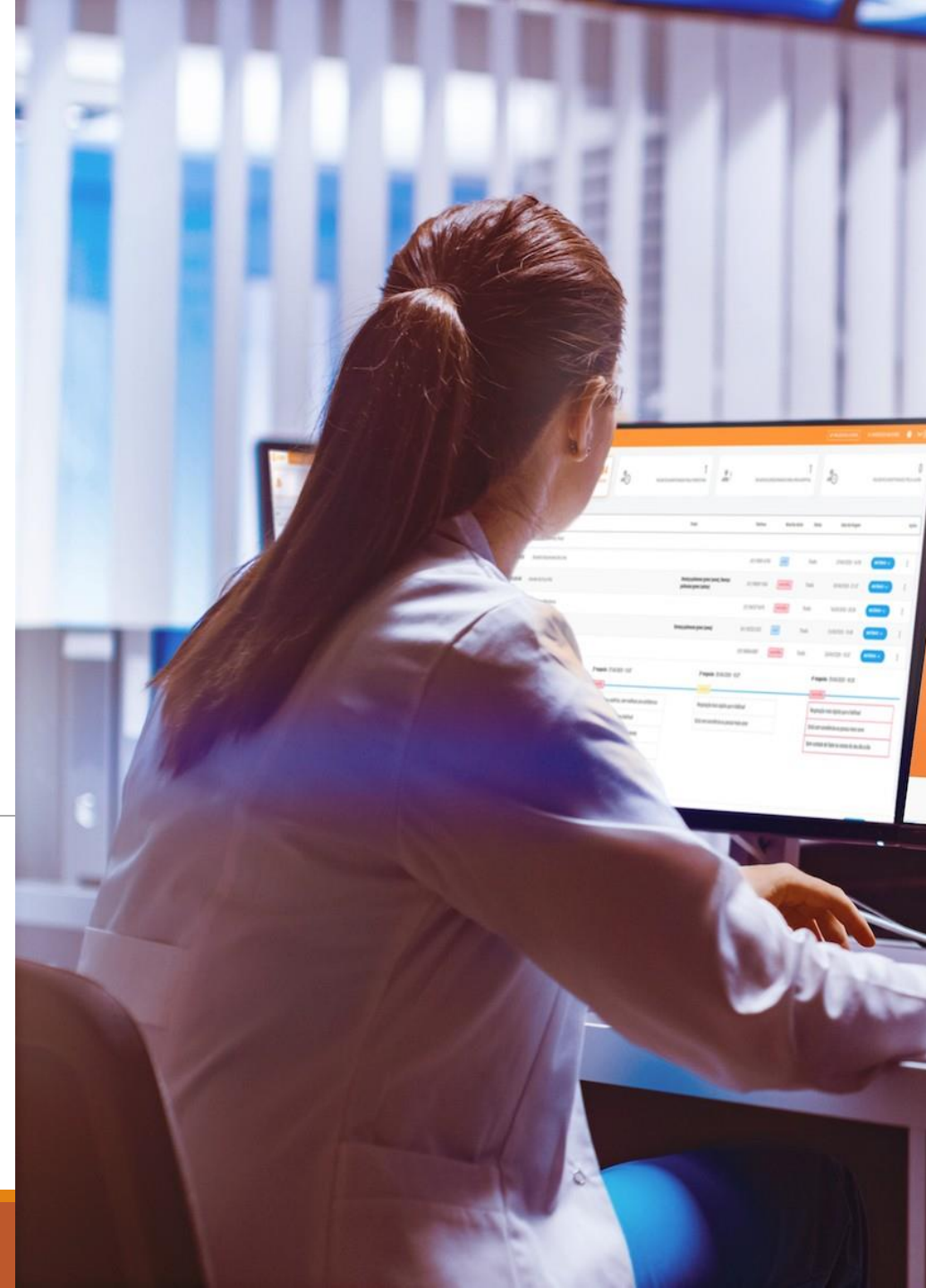
- In 2010, Jacson fressatto's daughter died due to sepsi
- Creation of the world's first risk-management cognitive robot.
- Promises to help healthcare professionals saving lives (LAURA, 2022).

WHAT IS SEPSI?

- Sepsis is the body's extreme response to an infection.
- With imperceptible progress
- Causes unnecessary deaths (World Health Organization, 2020).

DIAGNOSTIC

- Prioritizes care in heath institutions
- Manage routine hospital data
- Issue alert to the care team (LAURA, 2022).



LAURA IN HEALTHCARE (PILOT PROJECT AT A PRIVATE HOSPITAL)

NOSSA SENHORA DA GRAÇA HOSPITAL

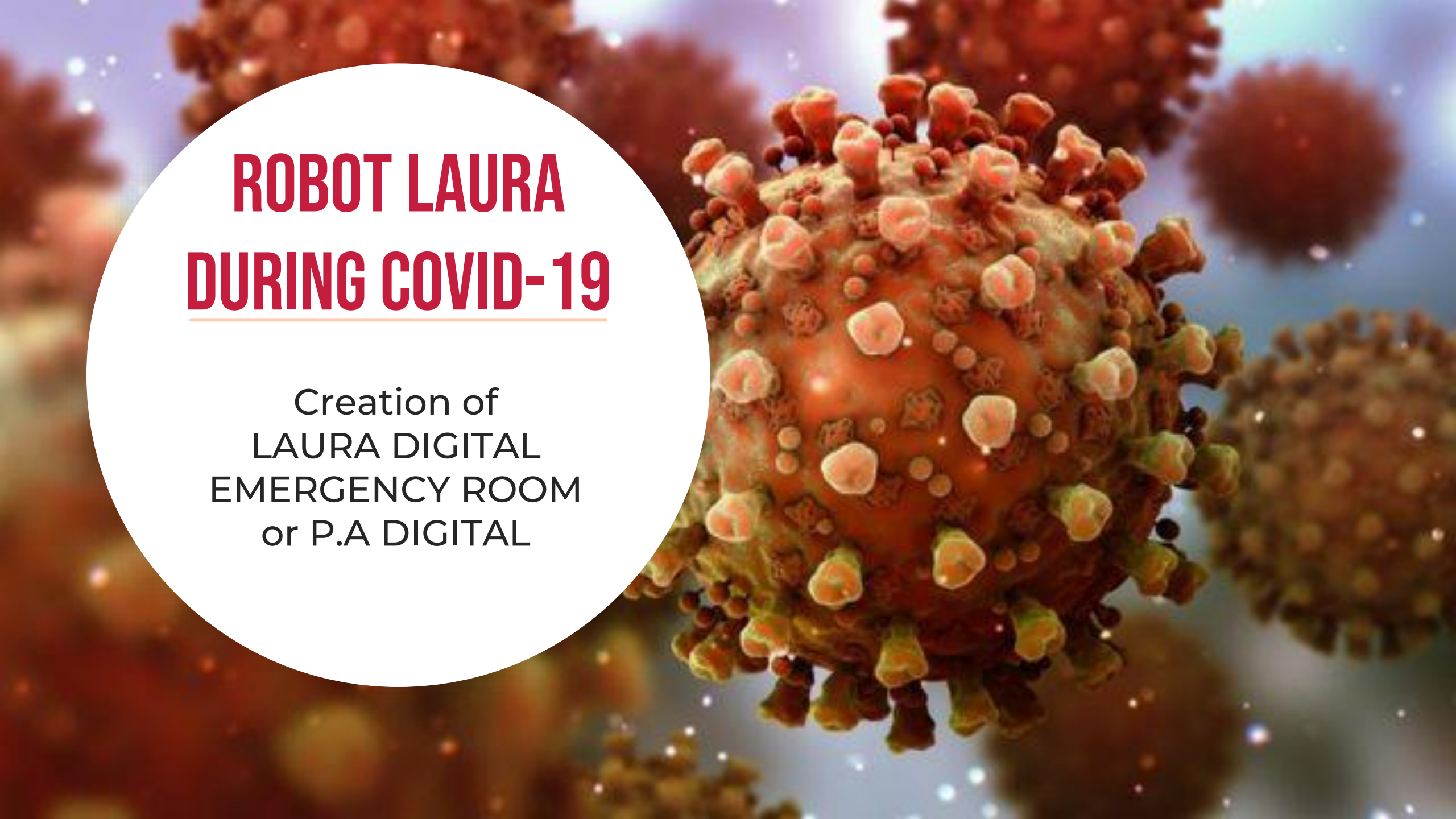
- Implementation on July 23, 2016
- Connected to electronic medical records
- Learn about the identification of patients with risk of sepsis
- the robot was trained Systemic Inflammatory Response Syndrome (SIRS) criteria

BEFORE LAURA

- Extensive data collection
- Delay in deciding on parameters
- Causes unnecessary death

RESULTS

- Improvement in the team's performance (started to be more considerate with patients)
- faster response to patients.

The background of the slide features a close-up, artistic rendering of several COVID-19 virus particles. These particles are spherical with a textured, orange-brown surface and are densely covered with small, protruding, greenish-yellow spike proteins. The particles are set against a soft-focus background of similar virus particles in various shades of orange, red, and blue, creating a sense of depth and scientific focus.

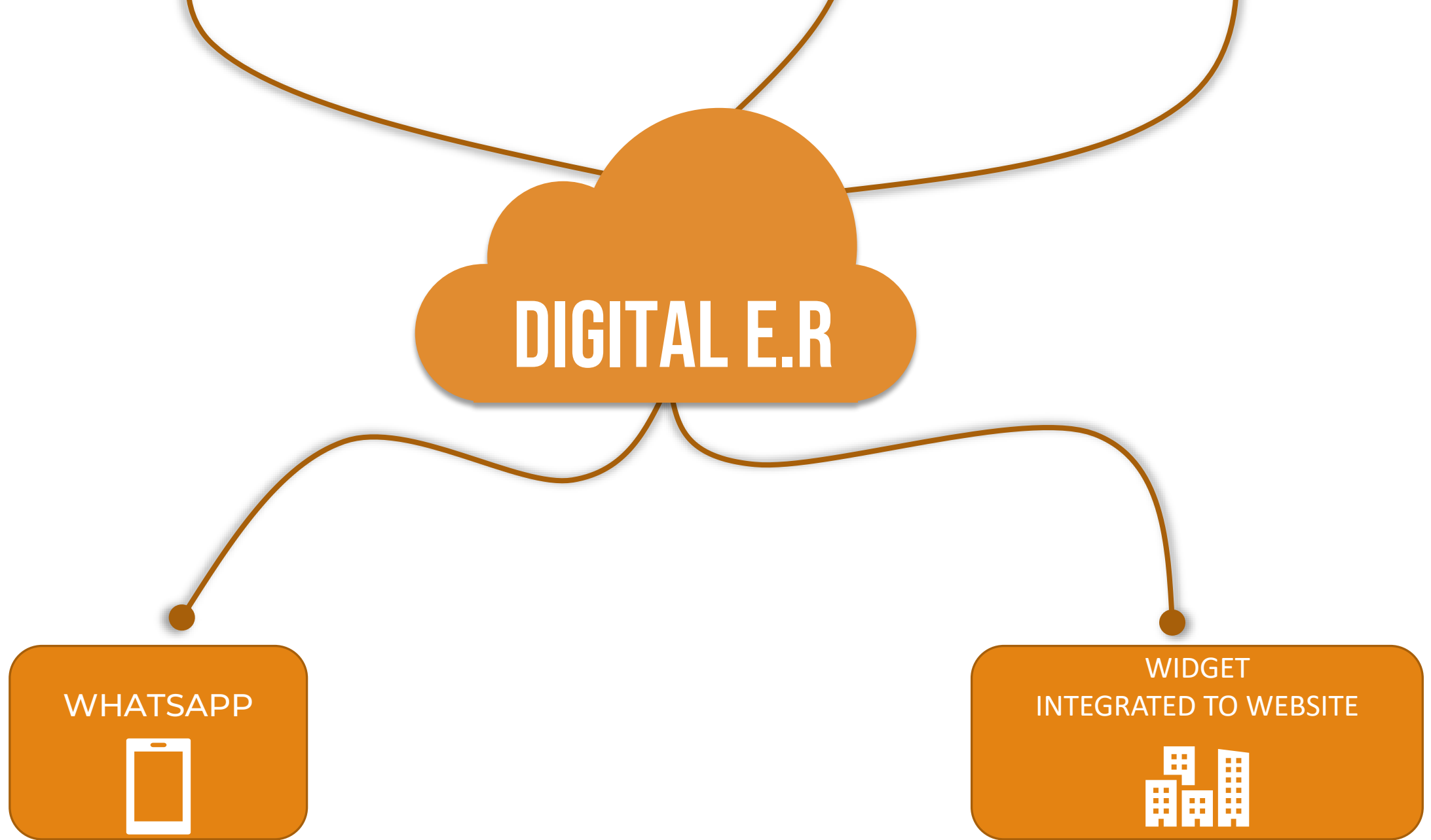
ROBOT LAURA **DURING COVID-19**

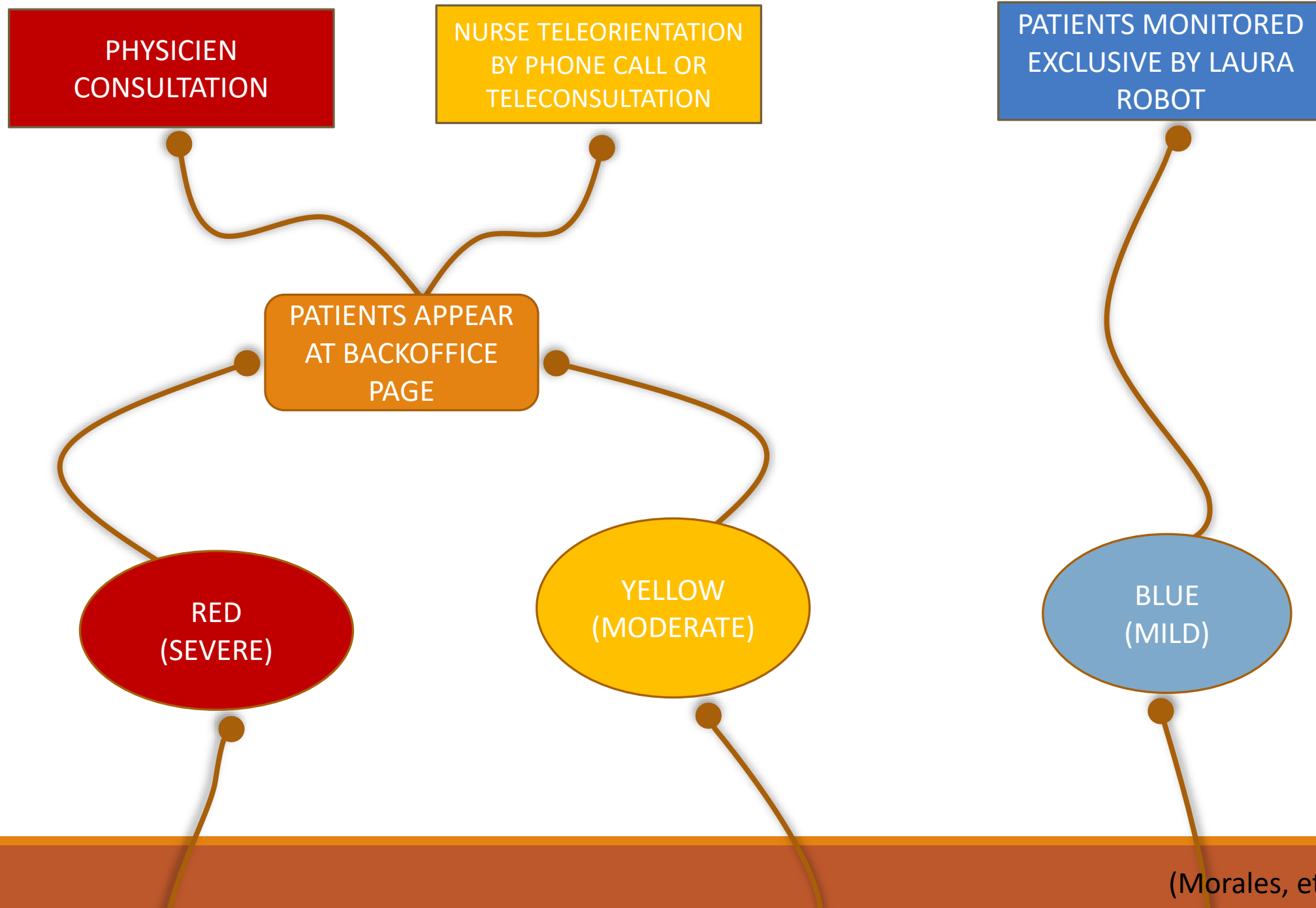
Creation of
LAURA DIGITAL
EMERGENCY ROOM
or P.A DIGITAL

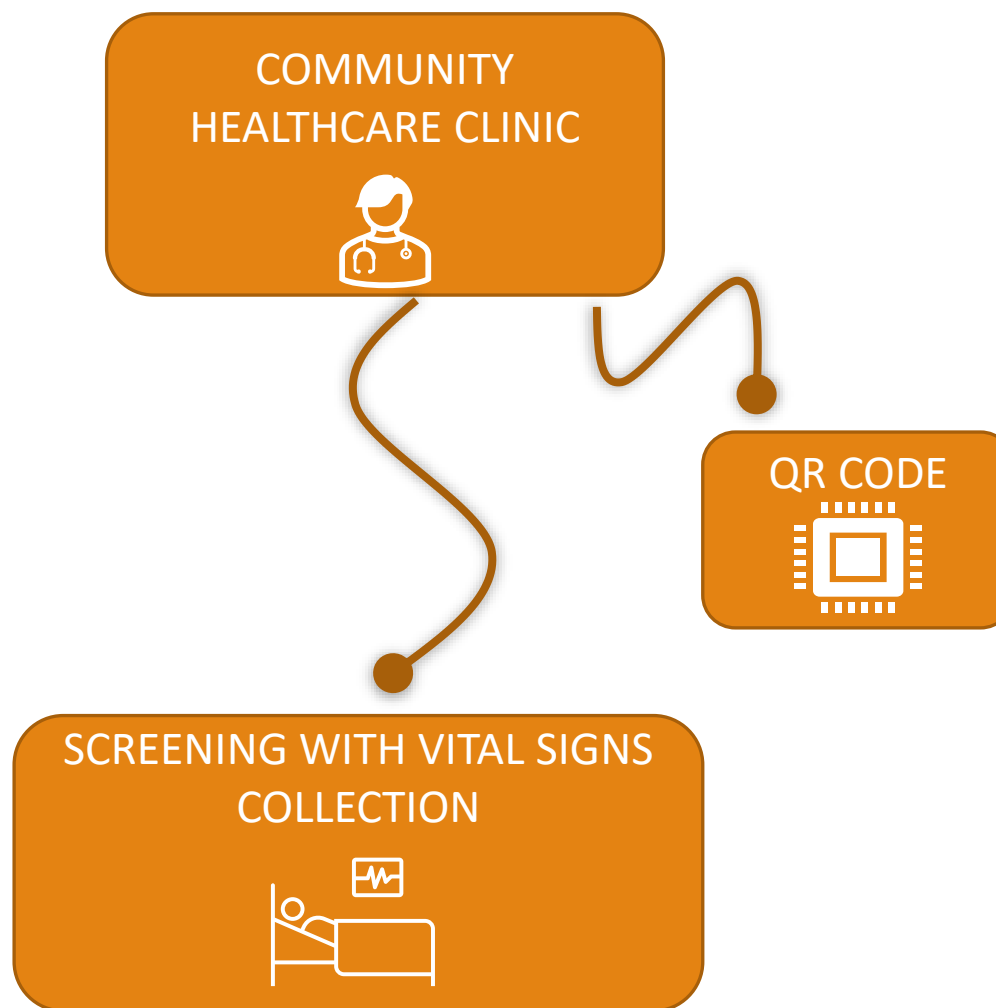
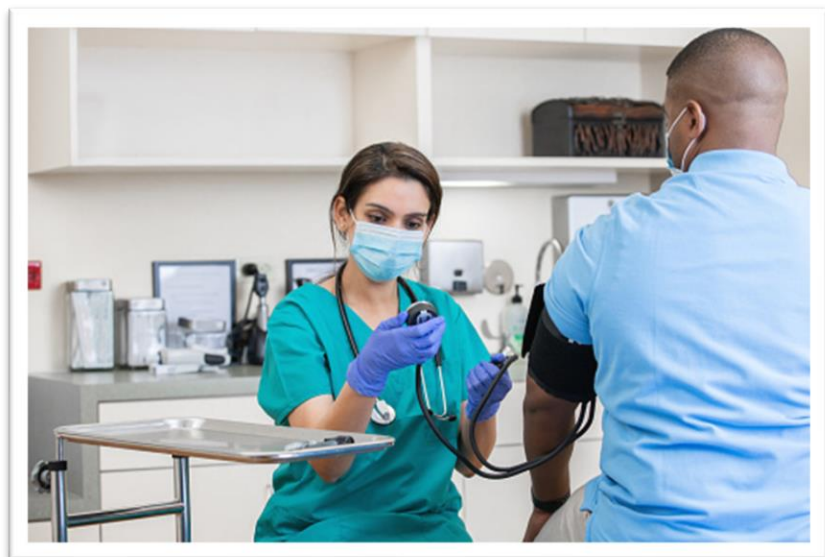
DIGITAL EMERGENCY ROOM (LAURA,2022)



- ★ Developed in April 2020
- ★ Avoid overcrowding hospitals
- ★ Chatbot - Virtual solution for triage of patients
- ★ Monitoring the Evolution of covid symptoms
- ★ Increased access to health in a coordinated manner
- ★ Telemedicine
- ★ Prevents the spread of the covid-19 virus

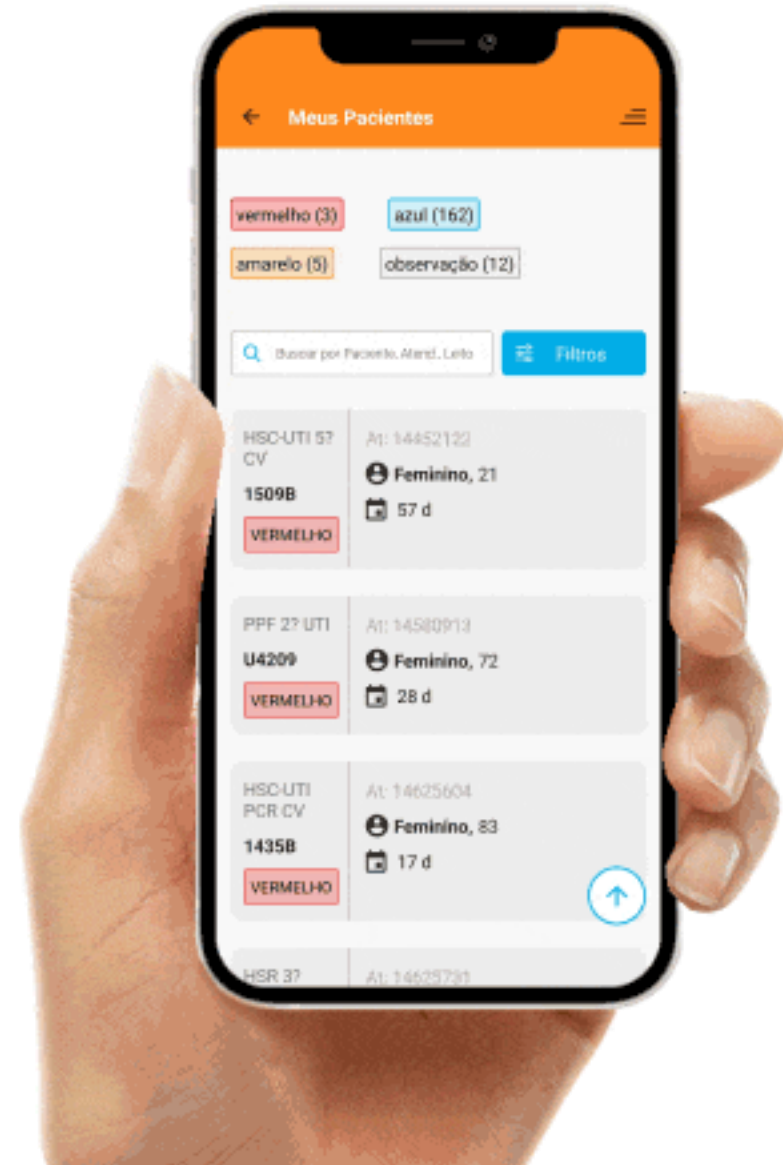




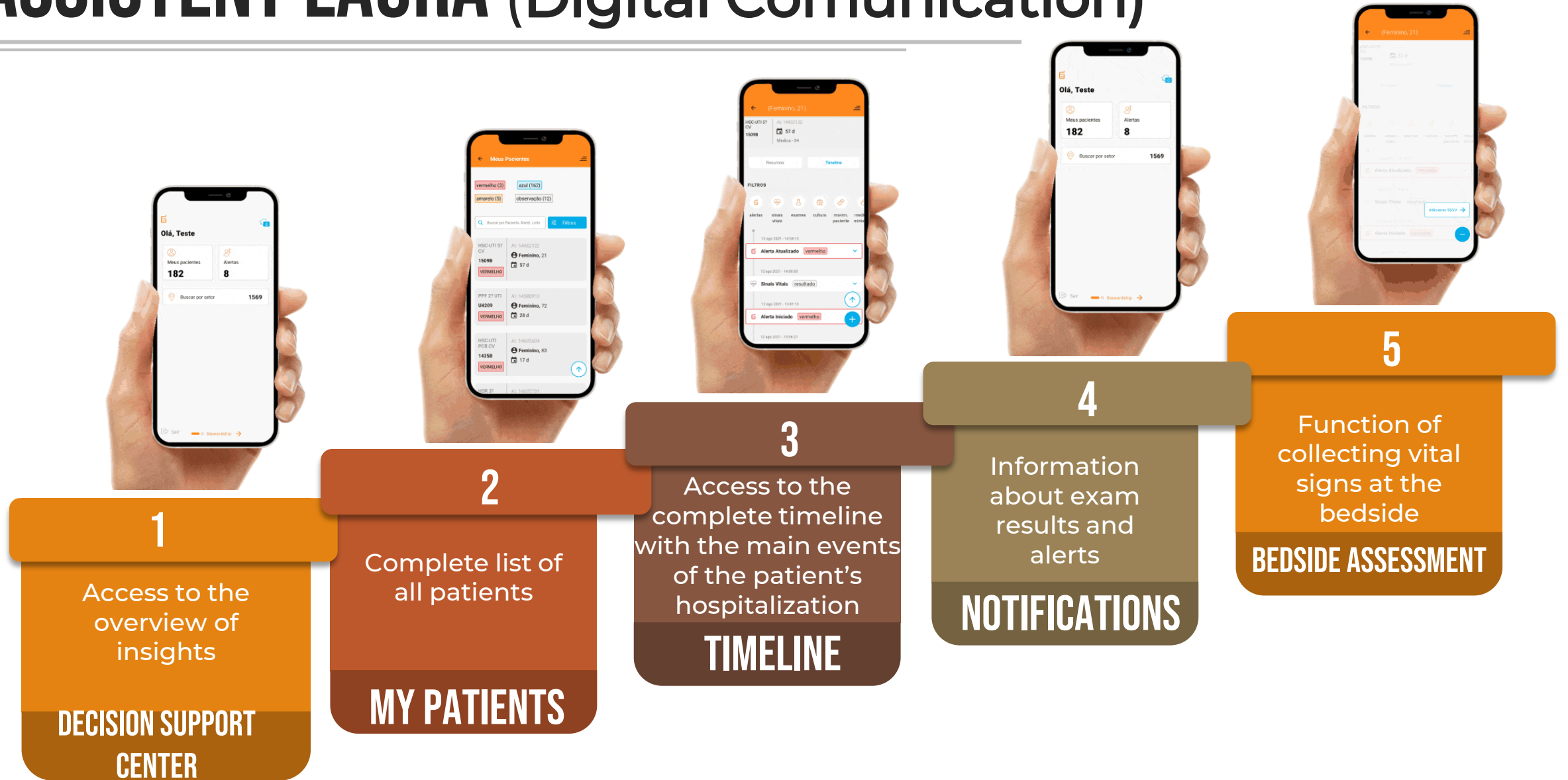


**DIGITAL COMMUNICATION / DIGITAL
IDENTITY
WELL-BEING AND SAFETY**

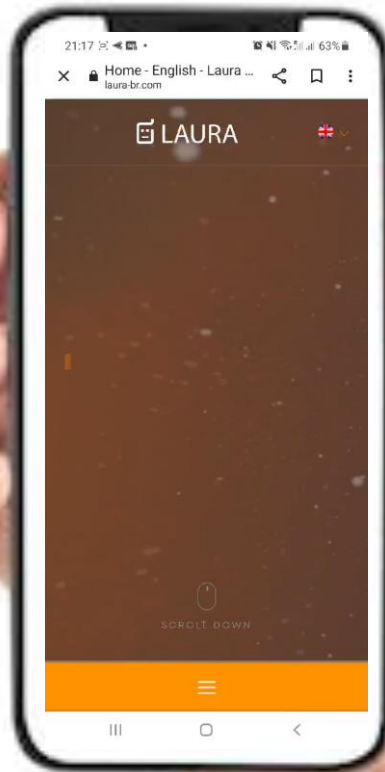
ASSISTANT LAURA



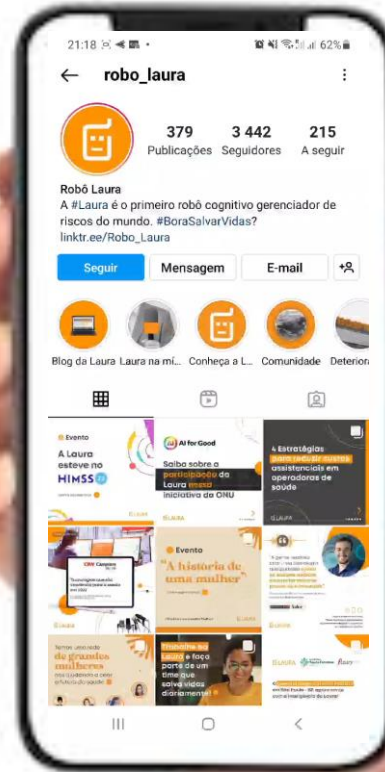
ASSISTENT LAURA (Digital Communication)



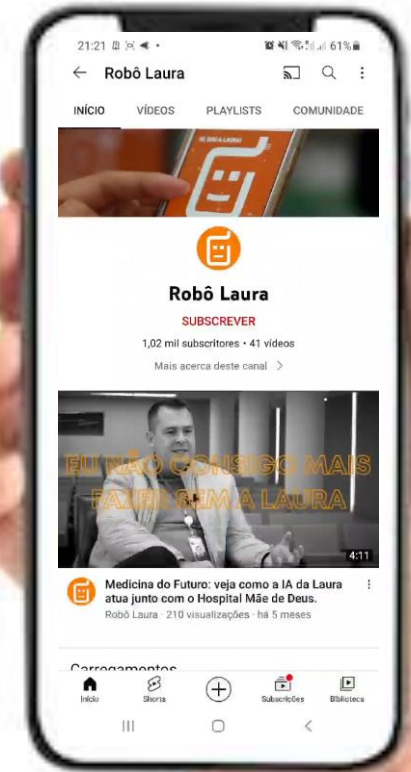
DIGITAL IDENTITY



WEBSITE



INSTAGRAM



YOUTUBE

WELL-BEING AND SAFETY

LAURA'S CREATION IS ALL FOCUSED ON THE WELL-BEING AND SAFETY OF THE PATIENT
AND EMPLOYEES

HEALTH SECURITY

Allows health professionals and patients to communicate without being face to face, creating security for both.

(LAURA, 2022)

COST REDUCTION

the reduction of medical errors and the non-use of paper, consequently, cause cost reduction

(LAURA, 2022)

PERFORMANCE IMPROVEMENT

contributes to increasing the level of satisfaction of health professionals, helping to improve their performance

(Conçalves, et al., 2020)

SAFETY AND CONFIDENTIALITY

They created an internal security application called Lead Ghost to protect intrusion in the databases (Tupinambi, 2018)



DIGITAL LITERACY

“

Individuals' awareness, attitude, and ability to utilise digital tools and facilities to find, access, manage, integrate, evaluate, analyse, synthesise digital resources, generate new knowledge, produce media expressions, and communicate with others are referred to as digital literacy.

(Colin Lankshear, 2008)



DIGITAL LITERACY FOR EMPLOYEE

- The participation of nurses begins in the development phase of the system, or pre-implementation phase
- Revise conduct an initial moment of awareness-raising with the healthcare teams
- By nurses are communication, empathy, attentive listening, and technical knowledge about the tool and the nursing work process in that specific hospital context.

DIGITAL LITERACY FOR EMPLOYEE

➤ It is important to note that the Laura® nurses are not informatics specialists

➤ Understanding the functioning of the algorithm.



RELEVENCE OF PROFICIENCY FOR DATA AND INFORMATION HANDLING



- ★ Reduced the hospital mortality rate by 25%
- ★ Length of hospitalization decreased by 10%
- ★ Analyzed more than 8.6 million calls
- ★ 1,5 millions average monthly savings with digitization of care coordination
- ★ Currently operates in 40 health institutions

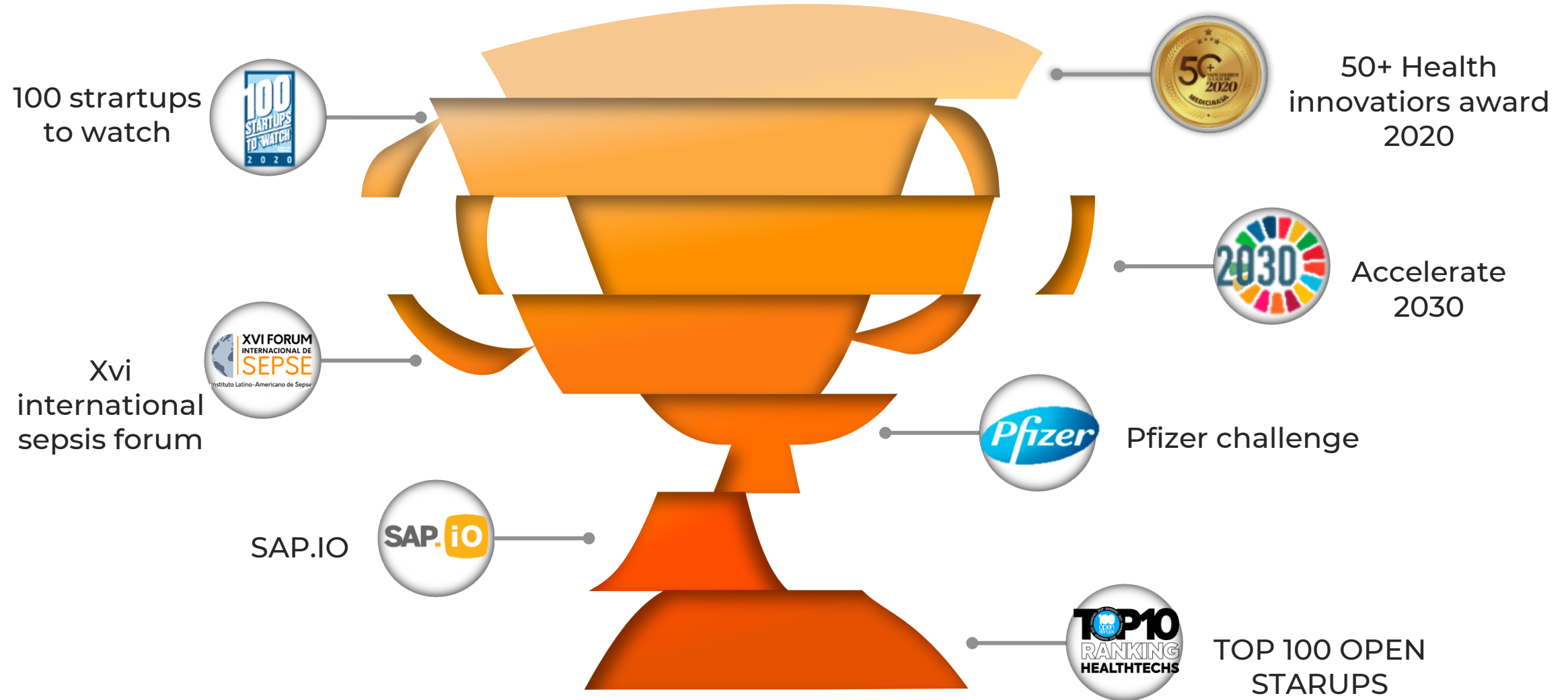
RELEVENCE OF PROFICIENCY FOR DATA AND INFORMATION HANDLING

What Laura Has

ACHIEVED SO FAR



RELEVANCE OF PROFICIENCY FOR DATA AND INFORMATION HANDLING



REFERENCES

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Morales, H., Guedes, M., Silva, J. & Massuda, A., 2021. COVID-19 in Brazil—Preliminary Analysis of Response Supported by Artificial Intelligence in Municipalities. *Frontiers in Digital Health*, Volume 3, e648585.

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Tupinambá, R., (2018). *CRYPTO ID*. [Online] Available at: <https://cryptoid.com.br/banco-de-noticias/30283-sonho-de-laura-robolaura-o-algoritmo-da-vida-surpreende-a-sepse/> [Accessed on 6 March 2022].

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World Health Organization, 2020. *WHO*. [Online] Available at: <https://www.who.int/news-room/fact-sheets/detail/sepsis> [Acedido em 6 March 2022].

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Colin Lankshear, M. K., 2008. Digital Literacies: Concepts, Policies and Practices. Em: M. K. Colin Lankshear, ed. Digital Literacies: Concepts, Policies and Practices. New York: Peter Lang Publishing, pp. 163-165

WE DID IT!
TIME FOR QUESTIONS!

