NexComm 2024 & DigitalWorld 2024

Theme: Heath&Accessibility
Focus: Challenges for Accessibility for All in Digital Era

CONTRIBUTORS

Moderator

Prof. Dr. Monika Maria Moehring, Technische Hochschule Mittelhessen, BliZ, Germany

Panelists

- Sr. Lect. Jonny Karlsson, Arcada University of Applied Sciences, Finland
- Dr. Baptiste Alcalde, FH Joanneum, Austria
- Prof. Dr. Olga Levina, TH Brandenburg, University of Applied Science, Germany
- Dr. Vania Mota, Ordem de São Francisco do Porto, Portugal

Accessibility: Definition

"..having the necessary conditions to reduce or eliminate the barriers that hinder the full and effective participation of persons with disabilities [chronical diseases, ageing persons] on an equal basis with others." *(Souce: equitas.org)*

Disability: Many possible definitions!

UK: e.g., high blood pressure and diabetes 2 acknowledged as disabilities; "disabled" independent from age cohort, many disabled over 80 years.

Vision: 20% or less qualify as visually disabled.

Germany: rigid criteria; e.g., diabetes 2 or hypertension will not be considered a disability; "disabled" relative to age cohort, only few disabled over 80 years.

Vision: 30% or less qualify as visually disabled.

- **CHALLENGES IN USABILITY AND ACCESSIBILITY OF DIGITAL REHABILITATION APPLICATIONS**

  - **LACK OF TECHNOLOGY –** All users do not have equal access to technology required for digital rehabilitation applications.

  - **DESIGN AND USABILITY** – Many rehabilitation applications have poor user interface design and/or are not designed with usability and accessibility in mind (users may for example have visual impairments or cognitive disabilities).

  - **CULTURAL AND LANGUAGE BARRIERS** – For the majority, digital rehabilitation applications are not available in the clients' mouther tongue

  - **PRIVACY AND SECURITY** – is highly important in applications dealing with personal information. However, improved security often tend to mean increased complexity.

Jonny Karlsson
ARCADA

- **Accessibility in Health: filling the digital divide (patient view)**

  - **Availability: economical**

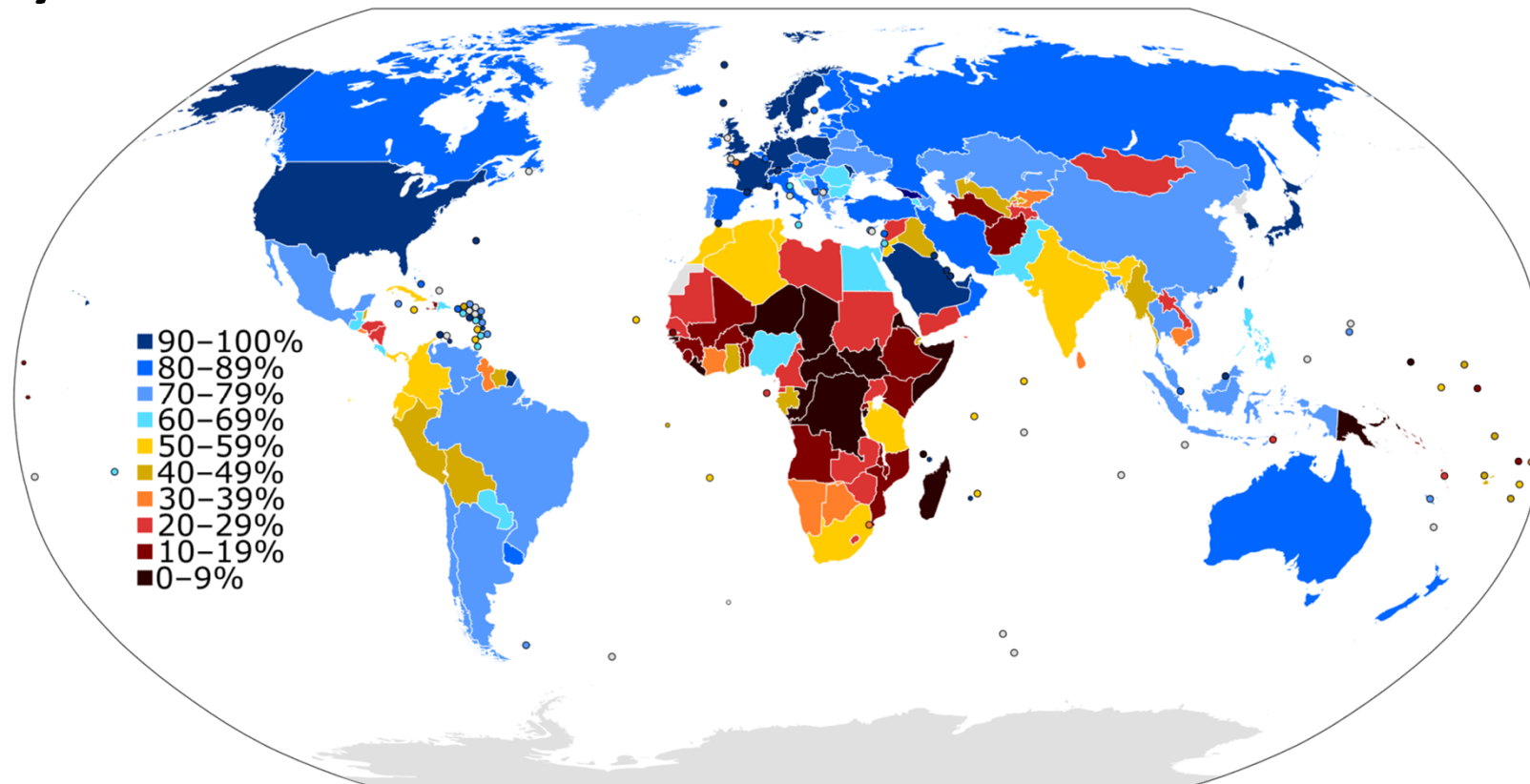 - **Usability: anatomo-physiological**

  - **Literacy: socio-educational**

Baptiste Alcalde, PhD.
FH JOANNEUM

Availability: economical

- **What you can**

Internet users in 2023 as a percentage of a country's population
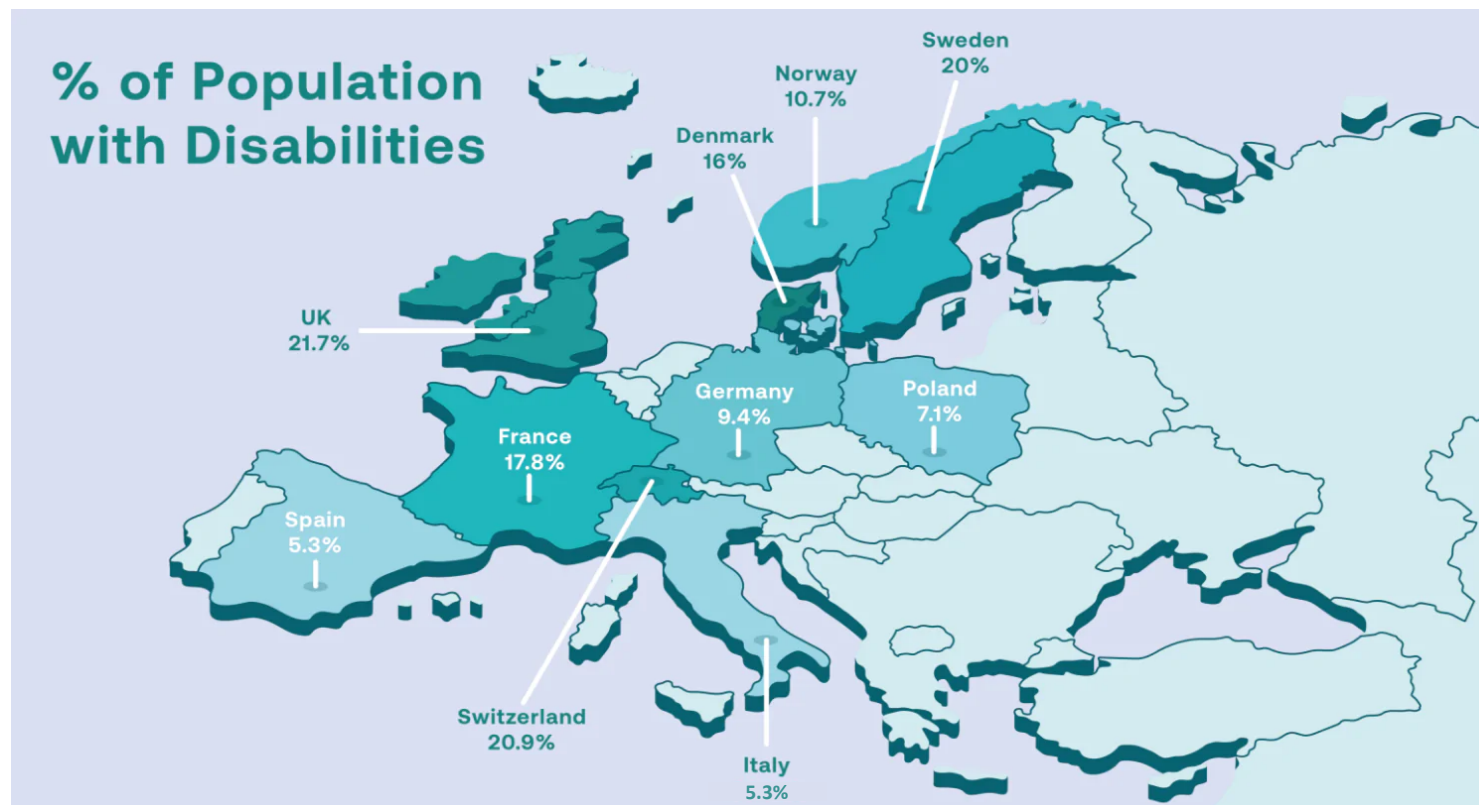Jeff Ogden (W163), CC BY-SA 3.0 <https://creativecommons.org/licenses/by-sa/3.0>, via Wikimedia Commons

- **Who you are**

% of population with disabilities in Europe
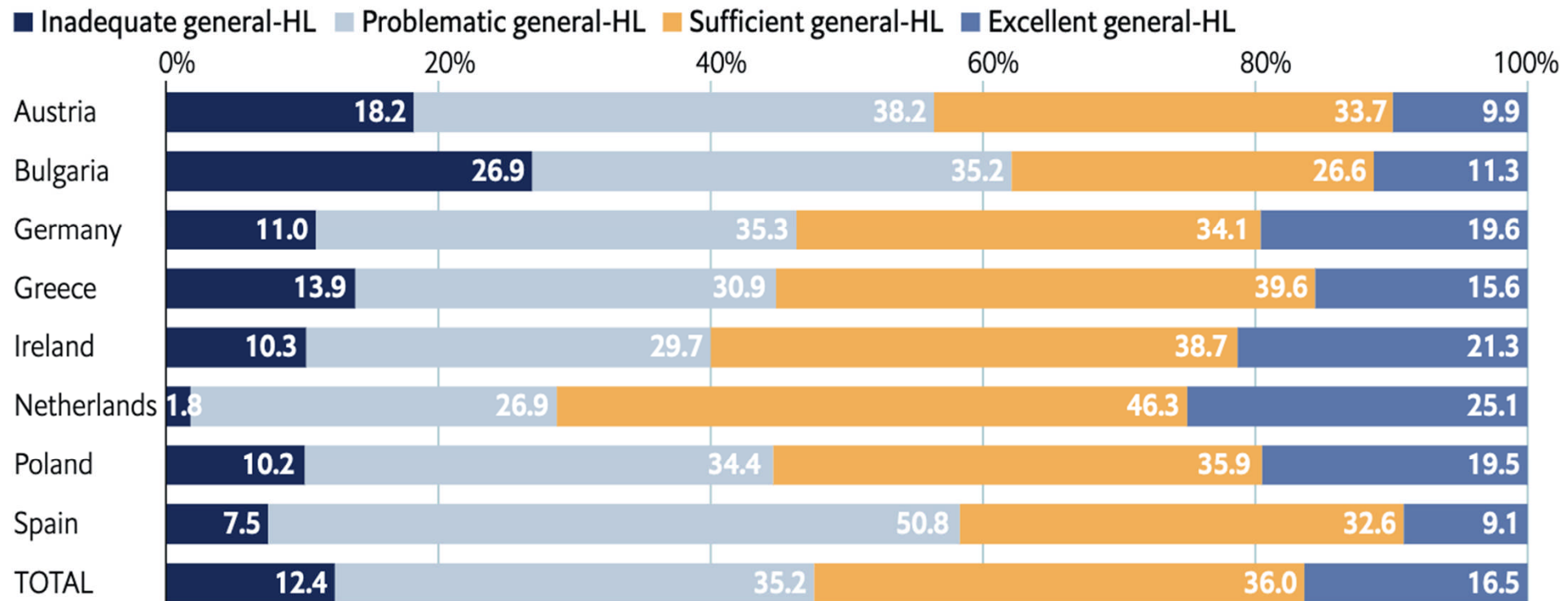https://hrnews.co.uk/these-countries-have-the-highest-disability-rates-in-europe/

Literacy: socio-educational

- **What you know**
  - **Health Literacy (HL) in Europe (2015)**

Sources: Sørensen K, Pelikan JM, Röthlin F, et al. Health literacy in Europe: comparative results of the European health literacy survey (HLS-EU).
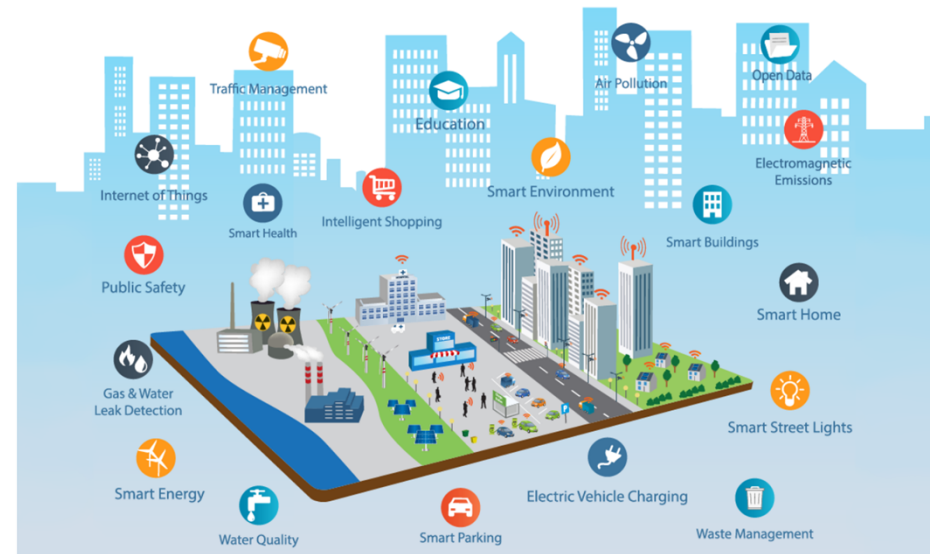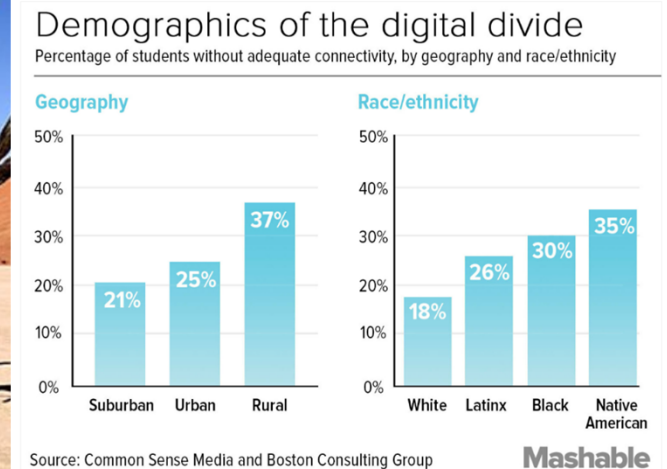Eur J Public Health. 2015. Dec; 25(6): 1053-8.

- As with services of a physician or caretaker, the efficiency of digital health services is highly dependent on the accessibility to the infrastructure

  - Digital literacy skills necessary to use the technology

  - Digital technologies can provide access to medial information in healthcare deserts

  - Digital technologies can only be accessible within digital infrastructure

Olga Levina
Brandenburg University of Applied Sciences

THE IMPORTANCE OF DIGITAL LITERACY FOR OLDER ADULTS

- **TECHNOLOGY AS AN ENABLER FOR IMPROVING OF THE QUALITY OF LIFE OF OLDER ADULTS–** How to develop tools that provide solutions for the improvement of the older adult's users quality of life.
- **USING TECHNOLOGY VS ADOPTING IT**– the challenge of engaging older adults on the use of technologies.

- **DIGITAL TRANSITION –** The importance of a user-friendly approach for older adults.

Vania Mota
VR2CARE
OSF, Porto

Chair's Position

- **FUNCTIONAL AND TECHNICAL ACCESSIBILITY – YES!**

- **EMOTIONAL ACCESSIBILITY? SOCIAL ACCESSIBILITY?**

  - **Technology has improved the subject-related inclusion in education, the workplace, and everyday life.** Covid-19 has accelerated the beneficial trend.

  - **Emotionally and economically, the world has become "colder" by these developments.** Less privileged countries may struggle to participate. Technologies that help challenged people to overcome the loneliness and negative feelings have so far been neglected.

  - **Only if we succeed in establishing economic and emotional accessibility in pace with digital transition,** we will be able to create fully
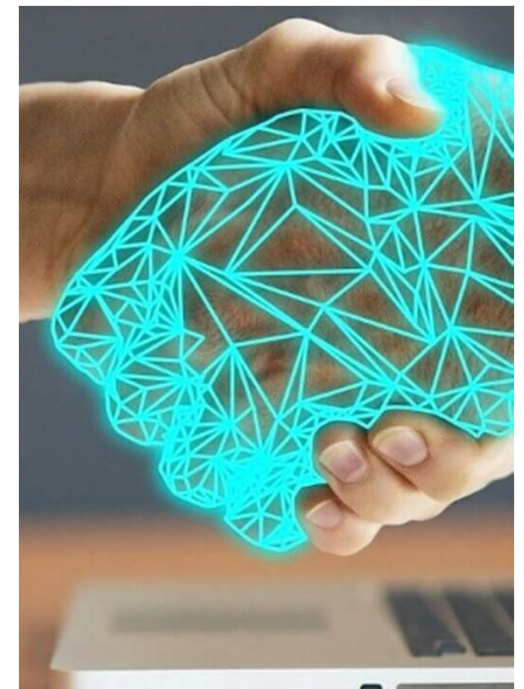
Monika Maria Möhring
Technische Hochschule Mittelhessen, Germany

11

Items for Discussion

- **DOES DIGITIZATION REALLY IMPROVE ACCESSIBILITY FOR DISABLED PERSONS? ARE NEW BARRIERS CREATED?**

- **CAN DIGITAL AND ICT TECHNOLOGIES CLOSE THE MEDICAL DIVIDE BETWEEN FIRST AND THIRD WORLD?**

- **HOW WILL ELDERLY PERSONS BENEFIT FROM ICT IN ACCESSIBILITY, CARE, AND HEALTH?**

Conclusions

"The world is designed for the 30year old!"

User Interfaces and ergonomics have to be accommodated to the needs and acceptability of "digital immigrants".

Infrastructure to operate ICT has to be optimized.

Financial affordability is an issue.

Society should also prioritize social work and personal care besides or even over technology orientation.