Lesson 1: Introduction to digital inclusion and equity

Definition of key terms

ALL DIGITAL

Digital4All

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Learning outcomes

- Understand the importance of digital inclusion and equity in higher education.
- Critically evaluate obstacles, issues, and factors that contribute to digital exclusion.
- Value the principles of equity and inclusion in the digital learning environment.
- Advocate for proactive measures to address and reduce digital exclusion.
- Gain insights into current trends and strategies for inclusive digital learning, including Universal Design for Learning (UDL)
- Embrace a commitment to fostering accessibility and inclusivity in higher education.

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Content

- **Definitions**: Digital inclusion vs. digital equity and why it matters in higher education.
- **Exploring the digital divide**: Key barriers (access, affordability, digital literacy, systemic inequalities); historical and social contexts of digital inequities; examples of inequities in higher education (e.g., lack of access to devices, inaccessible platforms).
- Supporting higher education students and staff in improving digital literacy

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Introduction

- Digital inclusion and equity in higher education are **essential in ensuring that all learners have access to and benefit from digital technologies**.
- This lesson explores **the definitions, significance, and challenges** associated with these concepts, with a focus on their role in higher education.
- Before exploring the complexities that digitalisation plays in higher education, **it is essential to clarify the meanings of the terms "digital inclusion" and "digital equity**."

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What are digital skills?

- **Digital skills are necessary** in order for learners to harness the opportunities of the digital environment and to ensure that individuals are **digitally included**.
- While definitions vary, UNESCO (2018) proposes to define digital skills as "**a range of abilities to use digital devices, communication applications, and networks to access and manage information"**
- Digital skills enable individuals to create and share digital content, communicate, solve problems, and enhance self-fulfilment in life, learning, and work.
- These skills and competences are interconnected and complementary.
- All individuals need digital skills and competences to live, learn, work, be informed, access online services, consume, and create and disseminate digital content (Council of the European Union, 2023).

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Basic and advanced digital skills

- **Basic digital skills** are required for the basic use of digital devices and online applications.
- Basic digital skills are considered as **a critical component** of a new set of literacy skills in the digital world (UNESCO, 2018).
- **Advanced digital skills** refer to a higher-level ability of users to use digital technologies in empowering ways

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Definition of digital equity

- **Digital equity**, as defined by the National Digital Inclusion Alliance, refers to a state **where all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy.**
- Achieving digital equity is crucial for promoting sustainable, inclusive, and fair growth.
- **Digital equity is reached when everyone is equipped with the necessary tools, skills, and opportunities to fully participate in social, political, and economic activities**
- This concept is pivotal **in bridging the digital divide** and ensuring that all individuals take advantage of the opportunities technology provides, not just specific groups
- **Digital equity and reducing digital inequalities** are prerequisites for **digital inclusion**

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What is your experience with digital inclusion?

Can you give an example (personal or from someone you know) when you felt included or excluded in digital environment?

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What is digital inclusion?

- Digital inclusion extends beyond merely providing access to technology, according to the United Nations (2024), it is defined as “**equitable, meaningful, and safe access to use, lead, and design of digital technologies, services, and associated opportunities for everyone, everywhere**”.
- This means ensuring that individuals **not only** have access to affordable and reliable internet services but also the appropriate devices, digital literacy training, quality technical support, and user-friendly applications and content.
- **Digital inclusion aims to create an environment where everyone, regardless of their background or circumstances, can effectively participate in the digital society.**

As digital technologies evolve, our understanding and definition of inclusion within it must also evolve.

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What is digital inclusion?

- When talking about digital inclusion, it is also important to **conceptualise it from a cultural perspective**.
- There is an existing debate on whether technology is dominated by Western culture or whether digital tools can empower multiculturalism and support minority cultures (OECD, 2023).
- This further highlights the point that **digital tools alone cannot support inclusivity and equity,** but it is **how they are employed and the pedagogies used** that make the difference.

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Why is digital inclusion necessary?

- In the era of digitalisation, information and communication technologies (ICT) have become integral to everyday life. **Access to digital technologies is essential** for participation in key areas such as education, employment, healthcare, and other basic services, including economic and personal development opportunities.
- As connectivity continues to expand, **unequal access to these tools risks exacerbating existing social, economic, and geographical disparities**, particularly affecting vulnerable populations.
- **It is important to keep in mind that digital inclusion must evolve as technology advances**; this includes addressing historical, economic, institutional, and structural barriers that hinder access to and use of digital technologies. Only through such efforts can we achieve digital equity.

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Digital equity

"Digital equity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services." (National Digital Inclusion Alliance, n.d.)

Digital inclusion

"Equitable, meaningful, and safe access to use, lead, and design of digital technologies, services, and associated opportunities for everyone, everywhere." (United Nations, 2024)

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The digital divide

- Achieving digital equity is a complex challenge - **the digital divide** has been described as a critical topic for social justice in the twenty-first century (Lythreatis, Singh & El-Kassar, 2022).
- The term digital divide was introduced in the mid-1990s and defined as the gap separating those who have access to new forms of information technology from those who do not.
- Digital inequalities, or digital divides, operate across different levels (OECD, 2023).
  - The **first-level digital divide** refers to **the difference in access to digital technologies** (Van Deursen and Helsper, 2015)
  - The **second-level digital divide** refers to **differences in digital skills, uses and motivations** (Burns and Gottschalk, 2019)
  - The **third-level digital divide** refers to **differences in offline outcomes** such as material or social benefits/outcomes **based on engagement with digital technologies** (Helsper and Van Deursen, 2019).

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The digital divide

- Digital divide requires intentional strategies to dismantle structural barriers —socioeconomic, geographical, and cultural, that restrict marginalised groups.
- According to ITU's Facts and Figures 2024 , 5.5 billion people are online, representing 68% of the global population, However, the same figure tells us that 2.6 billion people, one-third of the global population, are still offline.
- **Bridging this gap is not merely a technological issue but a matter of equity and justice, necessitating efforts from governments, educational institutions, and civil society.**

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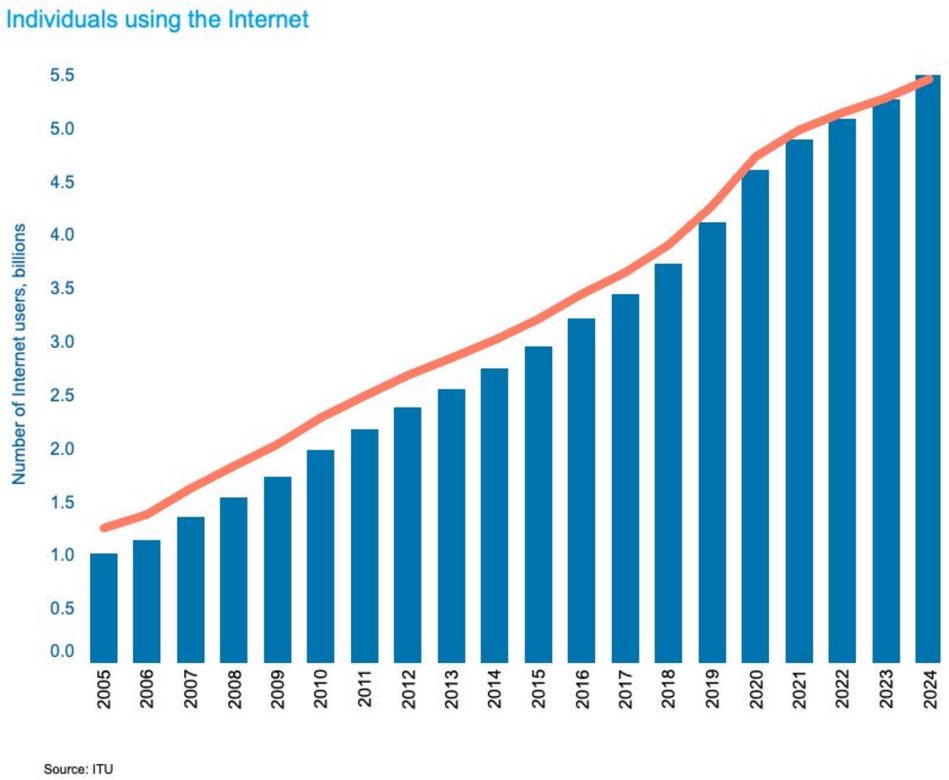
The digital divide



Source: ITU, facts and Figures 2024, Internet Use. Available at: https://www.itu.int/itu-d/reports/statistics/2024/11/10/ff24-internet-use/

- This data shows that Internet use is closely tied to a country's level of development, with about 93% of people using the internet in high income countries and only 27% of people having access in low-income countries.

- Although internet usage in low-income countries is growing quickly —at a rate of 8.5% per year in 2024, this rapid growth is still not enough to close the gap in access anytime soon.

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The digital divide

- Digital technology can help in lowering the costs of access to educational services for some disadvantaged groups (such as those who live in remote areas, those who live in remote areas, are displaced, face learning difficulties, lack time or have missed out on past education opportunities).
- When it comes to **digital exclusion**, there is no easy answer who is or might be affected by it.
- Research can only identify the major trends when, in reality, **anyone can be faced with digital exclusion** and the issue of digital exclusions is not limited only to the most vulnerable groups in the society (Mediawijs, n.d.).
- While the access to technology has expanded rapidly, **the divide is still very present** (UNESCO, 2023).

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”Digital inequality stack”

Term that suggest that different layers of digital divide are stacked and interdependent.

It highlights the **loop of digital and social inequalities (Robinson et al., 2020)**.

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Key barriers to digital inclusion

- Disparities in access to digital tools and differences in digital skill levels create significant barriers to achieving digital equity and inclusion.
- According to UNESCO (2018) there are four major barriers to digital inclusion which require holistic approach:
  - Lack of infrastructure
  - Low income and affordability
  - Limited user capabilities
  - Lack of incentives to go online

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Key barriers to digital inclusion

- The digital divide is influenced **by various factors**, **including socioeconomic status, gender, age, geographic location, wellbeing, access, digital skills, educational level, attitude or motivation, and support**.
- Low-income countries and economically disadvantaged groups face significant barriers to internet access due to high costs, limited infrastructure, and low digital literacy.
- **Gender inequality further deepens this gap**, as women —particularly in rural and low-income areas, are often excluded from digital spaces due to societal norms or lack of resources.
- Globally, 70% of men are using the Internet compared with 65% of women, resulting in a gap of 189 million more men than women online in 2024.

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Key barriers to digital inclusion

- In terms of **accessibility**, although mobile and fixed broadband have become more affordable globally, in low-income countries **affordability** remains a significant barrier.
- On this matter, The UNESCO and ITU, through the Broadband Commission for Sustainable Development are working on the goal of making broadband in developing countries affordable by 2025.
- **Geographical disparities** significantly contribute to the digital divide, with rural communities facing limited connectivity compared to urban centers, particularly in low-income countries and in low-income groups.

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Key barriers to digital inclusion – to keep in mind:

- There is **no easy answer** who is or might be affected by digital exclusion
- Research can identify the major trends
- **In reality, anyone can be faced with digital exclusion**

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Digital inclusion in higher education

- **In higher education, fostering digital inclusion is vital to reducing inequalities and improving teaching quality**.
- As highlighted in the OECD report (2023), evidence indicates the strategic integration of digital tools in into the teaching and learning process offers innovative ways to promote equity and inclusion among various student groups.
- Digital inclusion in education (at all levels) goes **beyond questions of access** towards **a more comprehensive model of teaching for diversity** and including the unique functions that digitalisation can provide.
- Digital education startegies should focus on how digital tools can benefit underrepresented groups from the **starting point** – not only as an afterthought.

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Digital inclusion in higher education

- Access to reliable internet and quality digital resources is essential for full participation in digital learning environments, yet significant barriers remain, **including insufficient digital training for educators** and inadequate infrastructures.
- Institutions must tackle the challenges of addressing diverse student needs, including those with disabilities, and ensure that digital tools are accessible to all.
- Digital technologies are reshaping education by enhancing inclusivity and equity through personalised learning and flexibility to address the diverse students' needs.
- Tools like AI and machine learning enable adaptive content that optimize learning and retention, while resources such as open educational resources (OER) and massive open online courses (MOOCs), help bridge achievement gaps between students with different academic backgrounds.

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Digital inclusion in higher education

- Personalised learning platforms enhance accessibility by offering tools tailored to diverse requirements, such as screen readers and captioning or sign language support.
- Moreover, technology breaks down geographical and temporal barriers, expanding access to higher education for non-traditional students, such as those balancing work or family commitments, by providing adaptable and inclusive learning opportunities.
- Online learning and digital resources offer flexibility, enabling students to learn at their own pace and customise their education to meet individual needs.

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Digital inclusion in higher education

- Educators benefit from digital platforms too, as these provide teaching resources, lesson planning tools, collaborative opportunities, allowing them to create dynamic and improved learning experiences.
- By adopting appropriate strategies and practices, educators can create innovative and inclusive digital learning experiences.
- However, achieving true digital inclusion faces significant challenges, such as disparities in access to digital tools and unequal digital literacy skills. These barriers can limit the effectiveness of digital technologies in fostering equity.
- To address these issues, education systems must focus on improving access to resources, promoting digital literacy, and implementing technology designed to support inclusion.

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Supporting students and staff in improving digital literacy

- A comprehensive strategy is essential to address challenges and fully leverage the benefits of digital learning.
- This requires collaboration among educational institutions, governments, and stakeholders to focus on the following:
  - **Improving access to technology**: ensuring that all students have the basic tools fully participate effectively in digital learning activities
  - **Providing digital literacy training**: equipping students and educators with the skills needed to navigate and utilise digital platforms effectively.
  - **Developing inclusive policies**: establishing higher education policies focused on digitalization while addressing equity and inclusivity.

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Supporting students and staff in improving digital literacy

- **Enhancing accessibility**: designing digital learning resources and platforms to meet the needs of students with special necessities.
- **Reducing financial barriers**: addressing the costs associated with digital resources to ensure equitable participation regardless of financial constraints.
- **Offering flexible learning options**: providing students the ability to access materials and engage in learning activities at their own pace and from any location, a significant benefit for non-traditional learners.

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