

9TH INTERNATIONAL STUDENT CONFERENCE ON LOCAL SAFETY AND SECURITY



University of Maribor

Faculty of
Criminal Justice and Security



Erasmus+



Slovenian Research and Innovation Agency

SUSTAINABLE DEVELOPMENT AND REDUCING INEQUALITY IN ACCESS TO CYBERSPACE IN SLOVENIA

Jana Kalan & Ninika Kadunc

Introduction

- Technology and Sustainability – Complementarity
- Cyberspace – a global information environment comprising information systems and networks, data, digital devices, and their users
- Sustainable development – aims to meet the needs of the present without compromising the ability of future generations to meet their own needs
- Digital inclusion
 - reducing inequality, economic growth



Internet Use and Accessibility

- The digital age brings new opportunities and challenges
- The Internet as a fundamental infrastructure
 - connects networks via routers and switches
 - enables data transmission and access to content
- The impacts of digitalization
 - the development of e-services and e-government
 - improvements in quality of life
 - greater exposure to cyber risks



The Development of Broadband Networks in Slovenia

- Narrowband – slower, for basic services (telephony, fax)
- Broadband – high speeds, advanced services (video, voice, digital content)
- The importance of broadband infrastructure
 - reduces the digital divide
 - promotes regional development
 - enables equal access for residents
- Development in Slovenia
 - the rollout of fiber-optic networks began around 2005
 - initial development focused on urban areas



Access to digital infrastructure

- The Internet is transforming communication, access to information, and the functioning of society
- Contribution to society
 - greater access to knowledge and information
 - new jobs
 - more efficient public services
- The Internet and sustainability
 - supporting the green transition
 - efficient use of resources and energy
 - promoting digital growth



The digital divide between urban and rural areas



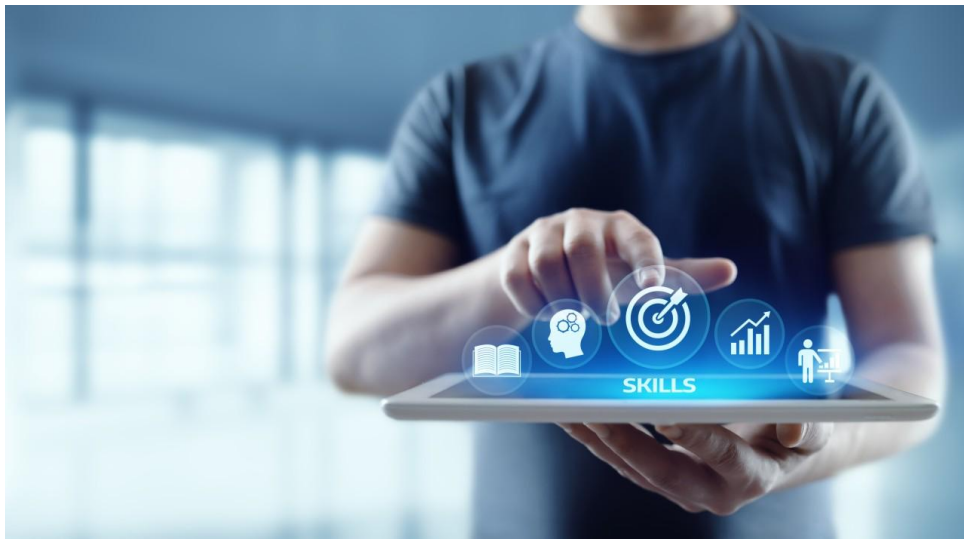
- Level of development, access to services, and quality of life.
- With the advancement of digitalization, these disparities are narrowing, as rural areas are gaining increasingly better access to the internet and digital services.
- In Slovenia, the digital divide is relatively small, but certain disparities remain nonetheless; moreover, digitalization also brings new challenges, such as cyber risks.

Vulnerable Groups and Digitalization



- Vulnerable groups: the elderly, the unemployed, the less educated, low-income individuals
- Limited access to technology + lack of digital skills
- Digital divide = access + ability to use
- Low digital literacy → increased risk of social exclusion
- Digitalization: greater accessibility of services (e-government, education)
- At the same time, it can exacerbate inequalities
- Greater exposure to risks (cybersecurity, data misuse)
- Key: education, digital skills, inclusive policies

Digital Competencies



- Digital skills are key to society's digital transformation.
- Digital inclusion is an important aspect.
- The strategy aims to boost employability, promote the safe use of technology, and reduce the digital divide in society.

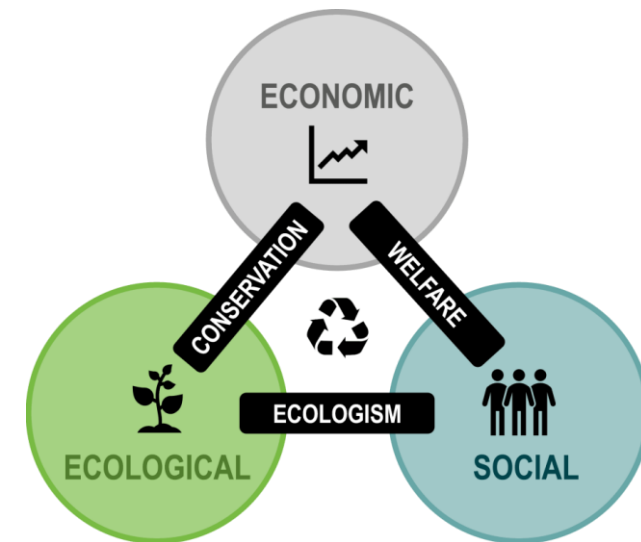
The Impact of Digital Exclusion on Education and Employment

- Digital inequalities limit access to jobs, education, and services.
- Digital exclusion is a lack of technology or digital skills.
- Digital skills and access are essential for equal opportunities.



Approach to Sustainability

- Sustainable development is based on a balance between
 - Economic
 - Environmental
 - and social development
- Digitalization as a support
 - improves process efficiency
 - reduces negative environmental impacts
 - enables smart and sustainable solutions



Digitalization Strategies and Policies

- Digital Slovenia 2030 – Overarching Strategy
 - 6 priority areas:
 - Gigabit infrastructure (development of fiber-optic and 5G networks)
 - Digital skills and inclusion (bridging the digital divide – age-related, geographic, and social)
 - Digital transformation of the economy (digital maturity of businesses)
 - The path to a Smart Society 5.0 (data for the benefit of society, artificial intelligence, smart cities)
 - Digital public services (e-government, e-health, e-education)
 - Cybersecurity
- Key targets by 2030:
 - 80% of the population with at least basic digital skills (2021 ~50–55%)
 - 90% of SMEs (small and medium-sized enterprises) with at least basic digital maturity
 - Gigabit connectivity for all households and major transport routes
 - 10% share of ICT professionals among all employees (2021 ~4.8%)
 - 5G network coverage of all populated areas

