

THE FUTURE OF EDUCATION  
FLORENCE 26-27 JUNE 2025

# **DIGITALIZATION OF SERVICES AND THE CREATION OF NEW BARRIERS: UPSKILLING AND RESKILLING AS A WAY TO MITIGATE THE DIGITAL DIVIDE.**

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# INTRODUCTION



In Italy, low digital literacy and a shortage of STEM graduates are widening existing inequalities. The digital divide is more than a tech issue. It reflects deep social, economic, and cultural barriers.

**Our goal: build an inclusive digital society where no one is left behind.**

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# OBJECTIVES



- Analyze how digitalization can create new social barriers.
- Investigate the role of upskilling and reskilling in overcoming the digital divide.
- Evaluate the effectiveness of Italian and European digital inclusion policies.

# RESEARCH QUESTIONS



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- 1 How does the digital divide manifest in Italy today?
- 2 Which population segments are most excluded?
- 3 What is the impact of upskilling and reskilling on reducing digital inequalities?
- 4 Which institutional cooperation models are the most effective?

# Literature Review

- Evolution of the digital divide: from access to meaningful participation and skills.
- Socioeconomic and geographic disparities amplify digital exclusion.
- Ethics of digitalization: digital rights, participation, and social justice.

# RESEARCH DESIGN



## Qualitative analysis

Qualitative analysis of institutional reports and data (DESI, ISTAT, Digital Decade Report).


## Case Study Approach

Case studies of public, private, and academic initiatives in Italy and Europe.

## Interdisciplinary approach

Interdisciplinary approach combining policy, education, technology, and human rights.

# DATA COLLECTION & ANALYSIS



## Data Collection

Re-elaboration of European data on digital skills and ICT/STEM graduates.

## Data Analysis

Benchmarking against European and international frameworks (EU, UNESCO, OECD).



# KEY FINDINGS



- Only 45.8% of Italians possess basic digital skills, compared to the EU average of 55.6%.
- There is a critical shortage of ICT/STEM graduates, with a pronounced regional divide between North and South.
- Companies face increasing difficulty in recruiting qualified digital professionals, hindering innovation and competitiveness.
- Existing training programs are fragmented, lacking strategic coordination and long-term impact.

# DISCUSSION



- Importance of integrated strategies across schools, universities, businesses, and public institutions.
- Cultural change is needed to overcome resistance to innovation.
- Public-private partnerships are essential for effective solutions.
- Ethical principles must guide the digital transition.

# CONCLUSION




The **digital divide** represents both a **social** and **technical emergency**, with far-reaching consequences for **equity** and **inclusion**. As technology rapidly advances, those without adequate **digital skills** risk being further **marginalized**, deepening existing inequalities. To **prevent exclusion** and ensure that all individuals can **benefit** from **digital transformation**, a **holistic** and **coordinated approach** is essential, one that addresses **infrastructure**, **education**, and **cultural** readiness together.

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# RECOMMENDATIONS



- Strengthen digital education from early schooling.
- Promote STEM education, with attention to the gender gap.
- Expand upskilling and reskilling opportunities, especially for SMEs.
- Build collaborative ecosystems (digital hubs, universities, enterprises, institutions).
- Promote ethical, inclusive, and sustainable digital policies.



# THANK YOU

F O R T H E A T T E N T I O N

## Q&A

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