Determinants of Digital Inclusion in Higher Education: Exploring the Ethiopian Context

(Connect2Recover Research progress Information session)

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Agenda

- The Research
- Methodology
- Timelines
- The research progress
- Preliminary Results
- Steps ahead

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Background

- SDG- 4: Ensure "Ensure inclusive and equitable quality education for all and promote lifelong learning opportunities for all."

- Ethiopia: only 24% of Ethiopia's are using the Internet (ITU, 2020)

  - Ethio Telecom is the sole ISP so far in the nation so far.

- Ethiopia's approach towards digital inclusion

  - Documents show more focus on expanding network coverage

- Ethiopia: ICT in Education

  - Education Sector Development Program (ESDP V): plans for "inclusive computer laboratories"
  - SchoolNET (to connect secondary schools),
  - Ethiopian Education and Research Network (EthERNet) to connect higher education institutions (HEIs)

Objectives/Research Questions

- Gaps (what the research aims to address):

  - Lack of a clear definition of digital inclusion
  - Lack of a comprehensive guideline/strategy to ensure digital inclusion in education

- Research Questions

  - What are the digital resources available and how are they used to support the teaching-learning process?
  - How is the current setup of the digital ecosystem in relation to digital inclusion?
  - How was the university's ICT capability used to support education during the Covid-19 pandemic?
  - What are barriers to connectivity and access to digital resources?

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- Approach:

  - Bottom-up: Identify digital divides existing at HEIs
  - Recommend a framework to define and tackle digital inclusion in the Ethiopian context

- Research Design

  - Exploratory sequential mixed method

- Research scope and sampling:

  - Five universities selected
  - 398 students from the total of 76,206 undergraduate students to fill in questionnaires
  - Teachers being interviewed

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Activity Descriptions	Start date	End date
Document analysis (ICT policies, guidelines, previous works…)	Dec.1/2021	Dec.31/2021
Select target universities, set the research framework, formulate interview schedule	Jan.1/2022	Feb.28/2022
Recruit Interviewees, conduct interviews, design questionnaire	March 1/2022	March 31/2022
Transcribe, code and analyze the interview data	March 1/2022	March 31/2022
Recruit data collectors, local data collection coordinators	March 1/2022	March 20/2022
Provide orientation for data collectors, collect questionnaire data	March 20/2022	April 30/2022
Analyze and interpret data	May 1/2022	May 15/2022
Write the research report, submit	May 15/2022	May 30/2022

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- Data collection tools designed
  - Interview schedules- for teachers
  - Questionnaire- for students

- Data collection started
  - Review of relevant documentations- policies, programs
  - Interview of teachers underway
  - Data collection assistants having questionnaires filled out.
  - Questionnaire were distributed in paper form to ensure better returns and better quality

Digital Divides

Preliminary results show different types of digital divides that need addressing in a digital inclusion policy/strategy

- Connectivity and access to digital resources
  - Covid-19 effect: Education was disrupted despite e-learning
    - Urban-rural divide
    - Slow connection
  - Inequality in access to computers
    - Access to project funds creating a digital divide putting students of some universities in a more advantageous position
  - Inequality in access to digital content
    - Some universities have better digital content
    - Digital content not accessible outside of the university compounds
  - Insufficient bandwidths when compared to the number of students
  - Less content- a "beehive without bees" situation
  - Lack of Electricity, Interruptions

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Digital Divides

- Digital literacy

  - Lack of basic digital literacy programs in the universities
    - Students are expected to have those skills in high schools
    - Those coming from rural schools are impacted
  - Teachers: difference in knowledge of ICT applications in education
    - Some teachers have YouTube channels

- Motivation and Use

  - Non-use of the available resources (e.g. Learning management systems, digital libraries)
    - "students like Telegram the most"
    - "dependency syndrome"
  - Teachers not using learning management systems
    - University administrations required teachers to upload materials during the Covid-19 shutdown– for eLearning
  - Motivations: what are motivations for use of technology at national, organizational and personal levels?

Digital Divides

Students with disabilities

- Lack of access to computers, assistive technology
- Some universities (e.g., Addis Ababa University (AAU) and Hawassa University) have specialized computer rooms for students with disabilities. Others (e.g., Arba Minch University and Jimma university don't have.
- Difference in access to funds:
  - E.g., Teachers in the Education Faculty of AAU developed a project that brought ICT devices for their students with disabilities.

Policies, frameworks/guidelines

- They are needed to ameliorate inequalities mentioned above and to promote shared understanding and goals of digital inclusion

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The Steps Ahead

- Finish data collection and analysis by the end of April

- Finalize and submit the report by the end of May