

# MAPPING THE JOURNEY FOR THE DIGITAL REVOLUTION IN THE SPHERE OF EDUCATION THROUGH EXAMING THE FUTURE PROGRESS OF TECHNOLOGY



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# INTRODUCTION

- The COVID-19 pandemic accelerated the **acceptance of digital technologies into educational systems** globally. Schools and universities promptly adopted online learning tools to guarantee continuous education provision during lockdowns and social distancing measures. (*Rocker et al., 2023; Garcez et al., 2022*)
- As a result of this change, educators began investigating inventive **pedagogical approaches**, such as virtual classrooms and interactive internet materials. (*Carstens & Gray, 2023; Demir et al., 2023*)
- The pandemic served as an opportunity for the extensive implementation of digital instruments, drastically altering the conventional educational environment.



# RESEARCH GAP AND PURPOSE

- The literature highlights how digital transformation is crucial in supporting the transition to an increasingly **resilient education system**.  
(*Fernandez et al, 2021; Garcez et al., 2021*)
  - ▶ However, within this context, there needs to be a closer look at the role of digital technologies in analysing the **psychological** and **sociological dimensions**.
- The primary purpose of research is to describe the main features of digital technologies in the field of education as a way to draw possible guidelines to support both researchers and practitioners in a better shift from an **instrumental approach** to digital devices in the field of education by a **digital vision** of educational systems.

RESEARCH  
GAP

PURPOSE



# THEORETICAL BACKGROUND

Digitalization comprises the use of new (digital) technologies. It could be defined as “the simultaneous collection, analysis and manipulation of digital data in real-time”, through networks and the interconnection between different devices and actors. (*Barile et al., 2021; Trittin-Ulbrich et al., 2020; Caputo et al., 2019*)

Digitalization is something that cannot be considered as a new phenomenon, it now refers to the “normal” paths through which economy and society are planned and organized. (*Heredia et al., 2022*)



# RESEARCH APPROACH

- The technology adoption life cycle proposed by Rogers (1983) as a model for identifying and classifying innovations adopters in five ideal types as “conceptualizations based on observations of reality and designed to make comparisons possible”.  
(Rogers, 1983: 247)
- It is possible to classify the digital technologies in the education field innovation adopters as (1) innovators, (2) early adopters, (3) early majority, (4) later majority, and (5) laggards.
- The key assumption of the proposed idea is that the technological innovations, more precisely the digital ones, progressively spread inside the whole population as a consequence of a progressive process of contamination.  
(Caputo et al., 2021)



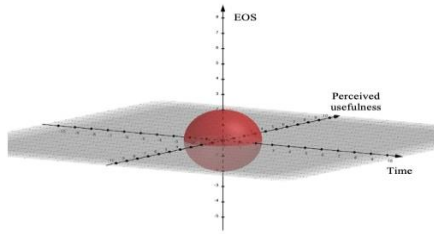
# RESEARCH APPROACH

This process of contamination is made possible by two variables formalized by the research streams interested in the **Technology Acceptance Theory**:

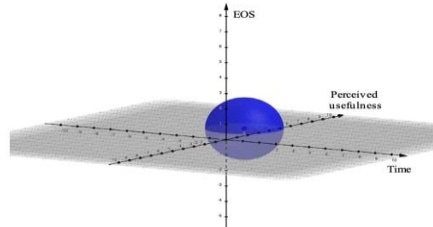
- ▶ the **Ease of Use (EOU)** in terms of “the degree to which a person believes that using a particular system would be free of effort”;  
(*Davis, 1989*)
- ▶ **Perceived usefulness** in terms of “of ‘relative advantage’ or the degree to which the innovation is perceived as better than existing practice”.  
(*Keil et al., 1995*)



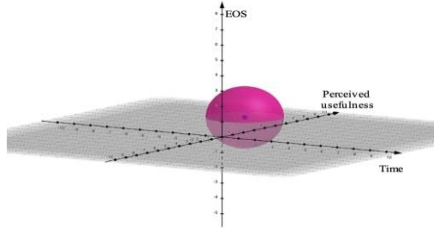
# CONCEPTUAL MODEL



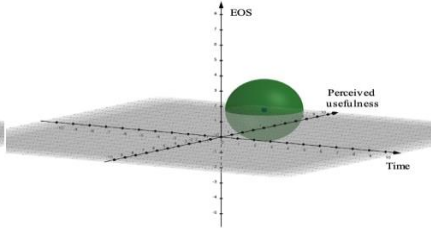
b) The stage of innovators



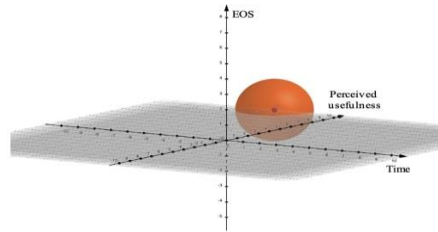
a) The stage of early adopters



c) The stage of early majority



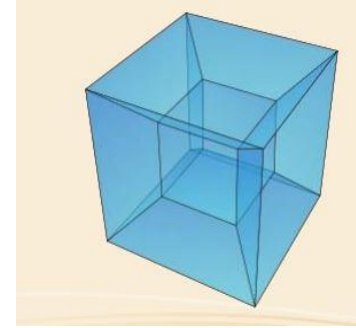
d) The stage of later majority



e) The stage of laggards



# DISCUSSION AND FUTURE PERSPECTIVES



## FUTURE RESEARCH

- Quantitative studies are highly needed
- Explore digital technologies adoption by according to different frames of collaboration





# CONTRIBUTIONS AND IMPLICATIONS

## Theoretical Contributions

- The proposed conceptual three-dimension model can represent a fertile ground for multiple practical experimentations to **classify and quantify actors that can effectively perceive and adopt new technologies in the multiple domains of education**.
- This research study recalls the attention on the need for rethinking and clarifying the ways in which variables such as the ease of use and the perceived usefulness can be measured in **high cognitive domains** such as education.

## Managerial Implications

- The research can offer an effective preface for supporting policymakers and practitioners in **defining guidelines and best practices** for the spread of new technology in education field.
- Adopting the conceptual model makes it possible to **catalogue the adoption stage of new digital technologies in education, analyze their adoption in this context**, and **provide the government with information about the digitization process**.

# Thank you for caring!

Any suggestion?

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