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PRESENTS THE PAPER ENTITLED

AI Agents and Students' Motivation to Learn in Online Learning Environment

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AI AGENTS AND STUDENTS' MOTIVATION TO LEARN IN ONLINE LEARNING ENVIRONMENT

ONLINE LEARNING

- Online learning has progressed to become a reality (necessity) for education.
- COVID-19 has accelerated online adoption.
- The rapid technological advancements has also empowered online learning
- The changing circumstances of students (especially in higher education) have favoured online learning
- The flexibility of online learning mode is one of its most valuable strengths

THE CONTEXT: ONLINE LEARNING AT THE HASHEMITE UNIVERSITY

- A state university with approximately 30,000 students
- It has online, traditional, and blended learning modes for its courses.
- The "computers in education" course was offered online.

MOTIVATION IN ONLINE LEARNING

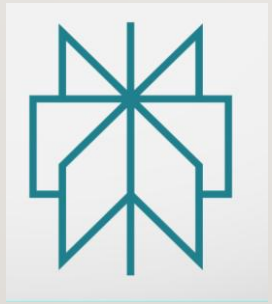
- People need motivation in order to do things.
- Motivation energizes and guides behavior toward reaching a particular goal
- Motivation drives student engagement and learning persistence
- Students' motivation to learn has been linked to their academic achievement
- Motivating students is a challenge in traditional settings, …. How about in online learning?
- Students might feel alone in online learning without (or minimal) support.

THEORETICAL FOUNDATIONS OF MOTIVATION

- Motivation, especially intrinsic, drives engagement and success; Self-Determination Theory highlights competence, autonomy, and relatedness as key needs, with online environments emphasizing learner autonomy supported by personalized AI feedback to enhance motivation.

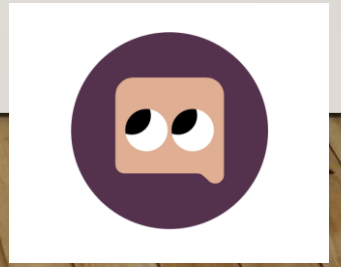
AI AGENTS

- AI agents are advanced software capable of autonomous decision-making and learning, enhancing education through personalized support, real-time tutoring, and administrative automation.







AI IN EDUCATION

- Personalized tutoring
- Real-time feedback
- Adaptive learning pathways, enhancing engagement and motivation.
- AI agents supporting both intrinsic and extrinsic motivation by adapting to individual needs and providing personalized feedback.

RESEARCH PROBLEM AND OBJECTIVES

- This study sought out to answer the research question:

What is the impact of using Gemini AI assistant in online learning environment on students' motivation to learn?

THE STUDY

- This study employed a semi-experimental design
- We compared the motivation of an experimental group using the Gemini AI assistant with a control group using traditional online teaching modes.

PARTICIPANT

- The sample included 115 educational sciences students from Hashemite University, with 65 in the experimental group and 50 in the control group
- females comprised 94% of participants.

RESEARCH INSTRUMENT

- A 30-item Student Motivation Test was developed with expert input and demonstrated high reliability (Cronbach's Alpha = 0.89) to measure motivation changes pre- and post-intervention.

FINDINGS

- **Enhancing Student Motivation with Gemini AI**
- Gemini AI assistant significantly boosts students' motivation by providing personalized support and engagement in online learning environments.
- **AI's Role in Supporting Self-Regulated Learning**
- Gemini AI facilitates self-regulated learning by offering real-time assistance and adaptive learning strategies that help students maintain focus and achieve academic goals independently.

CONCLUSIONS AND EDUCATIONAL IMPLICATIONS

- The study found that using the Gemini AI assistant significantly enhances students' motivation in online learning by providing personalized support and overcoming the limitations of reduced face-to-face interaction.
- Motivation in online learning require more than access to information; intrinsic and extrinsic factors need extra attention.
- Educators should integrate AI tools thoughtfully, emphasizing the development of students' self-regulation skills such as self-control, time management, and metacognition to maximize engagement and academic success.

THANK YOU