EXPLORING NEW AI-BASED TECHNOLOGIES TO ENHANCE STUDENTS’ MOTIVATION

Wissal Neji*  
Esprit School of Engineering,  
Tunis, Tunisia  
wissal.neji@esprit.tn

Naouel Boughattas  
Esprit School of Engineering,  
Tunis, Tunisia  
naouel.boughattas@esprit.tn

Faten Ziadi  
Esprit School of Engineering,  
Tunis, Tunisia  
faten.ziadi@esprit.tn

* Corresponding author

ABSTRACT

Aim/Purpose The aim of this study is to propose a teaching approach based on AI-based chatbot agents and to determine whether the use of this approach increases the students’ motivation.

Background Today, chatbots are an integral part of students’ lives where they are used in various contexts. Therefore, we are interested in incorporating these tools into our teaching process in order to profit from their benefits, assist and guide students while working with to prevent issues such as plagiarism and mainly to boost students’ motivation.

Methodology Using the proposed approach, new chatbot based learning activities were designed in three different courses for computer science engineering students. A mixed-method experimental study was conducted to evaluate students’ impression and satisfaction. Survey results of the students (N=58) who participated in the experiment (experimental group) were compared to the results of the students from the control group (N=60).

Contribution Trending AI conversational agents can be engaged in daily teaching activities as a learning assistant and coach to boost students motivation and skills development.

The full paper has been published as the following and is being presented at this conference:

https://doi.org/10.28945/5149


(CC BY-NC 4.0) This article is licensed to you under a Creative Commons Attribution-NonCommercial 4.0 International License. When you copy and redistribute this paper in full or in part, you need to provide proper attribution to it to ensure that others can later locate this work (and to ensure that others do not accuse you of plagiarism). You may (and we encourage you to) adapt, remix, transform, and build upon the material for any non-commercial purposes. This license does not permit you to use this material for commercial purposes.
Findings

Our study focuses on the impact of chatbots on student’s motivation. The study aimed to analyze the benefits and drawbacks associated with these conversational chatbots. Our findings revealed the significant role that chatbots can play in enhancing student motivation and improving teaching practices.

Keywords

AI, chatbots, digital tools, student motivation

AUTHORS

Wissal Neji is a Professor of Esprit School of engineering Tunisia. She received her Master and engineering degree in Computer Science from the National School of Computer Science Tunisia. Her teaching and research interests include innovative teaching, Machine learning, data structures, and Machine Vision. She is currently working as head of the department of numeric learning at Esprit School of engineering.

Naouel Boughattas obtained her PhD in computer science from the University of Rouen Normandy and the University of Tunis El Manar in 2016 (ENIT). She graduated from the National Engineering School of Tunis as a computer science engineer in 2009. She is interested in Innovative Teaching, Image Processing, Machine Learning, Deep Learning, Data Mining and clinical decision support tools. She is a professor at ESPRIT since 2017 and the team chief of the ImagIn research team since december 2019. She is certified Instructor and University Ambassador of Nvidia’s Deep Learning Institute.

Ziadi Faten is a professor at Esprit School of engineering Tunisia. She received a master's degree in computer science from the Higher School of Sciences and Techniques of Tunis in 2011. She is interested in Machine Learning, Deep Learning, Image Processing, Text Processing and active pedagogy research. She is a member of the ImagIn research team of Esprit.