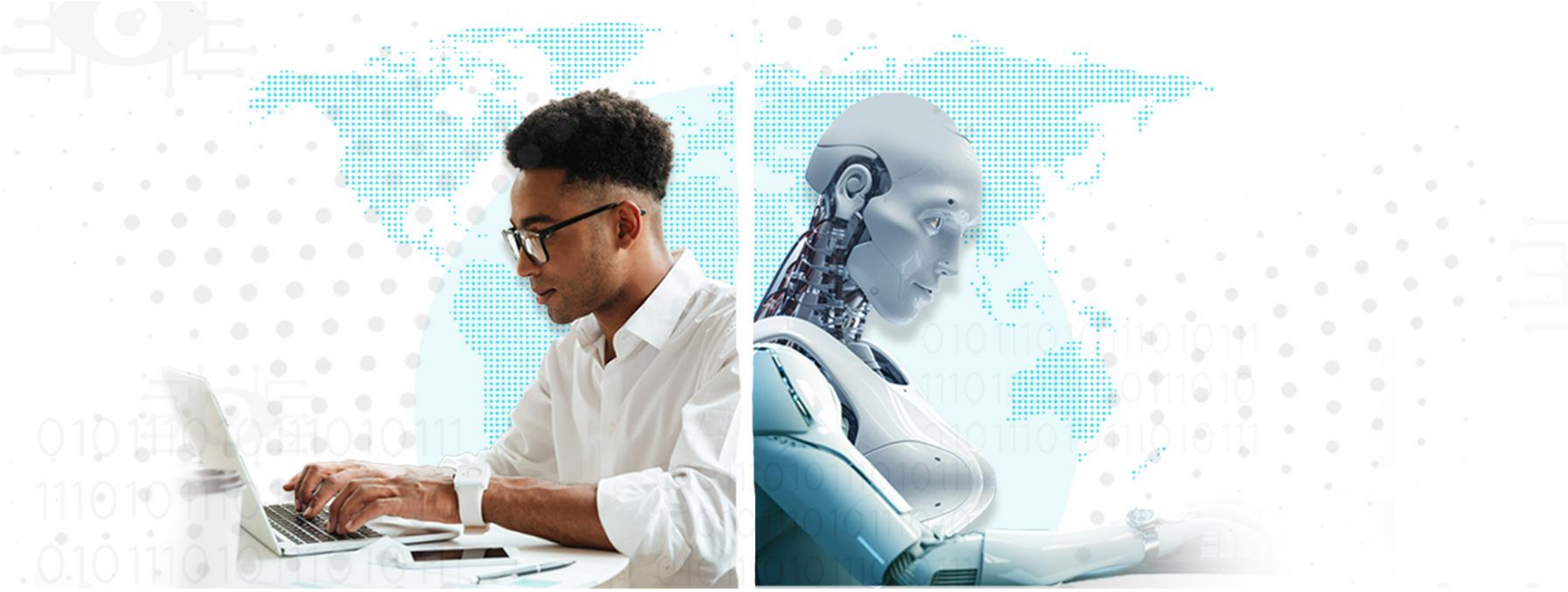


Bibliotheca Alexandrina

ICL Africa 2024

14-17 October

Not But Why Not:

Artificial Intelligence (AI) Knowledge Generation Between Acceptance and Rejection as a Tool to Enhance Project Based Learning and Professor's in Private Higher Education Sector in Egypt.

Presenter Name: Dr. Hala El Sedafy Dr. Rasha Ismail Mr. Mazen

Affiliated Institution:

Country: Egypt

Introduction:

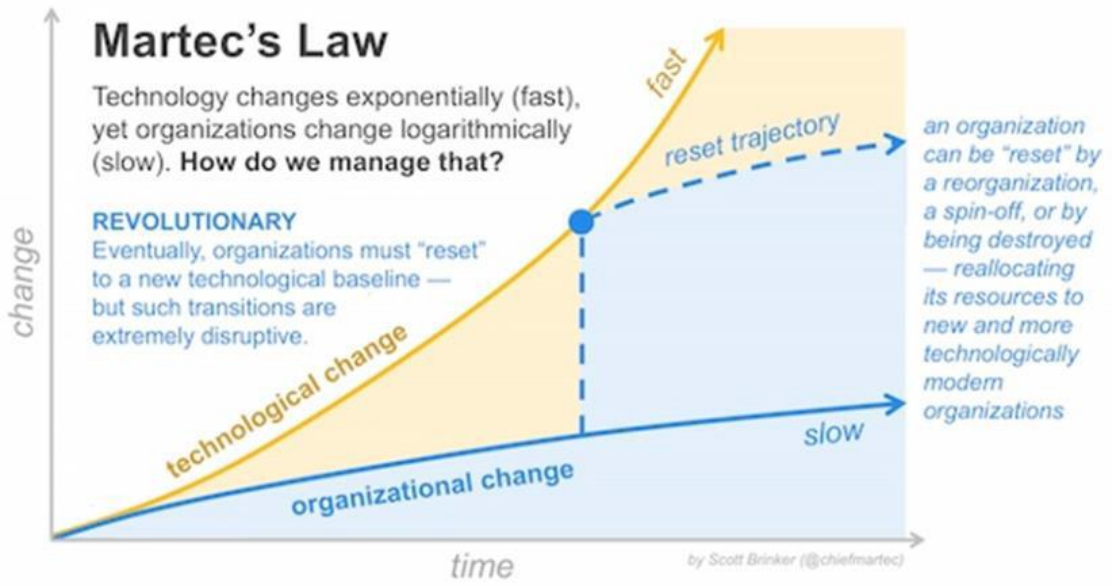
- The use of AI (Artificial Intelligence) in education became popular among students and instructors. Advancing technology is not only affecting the way of doing business but also its effect on education has become obvious. These advancements might have been catalyzed by the drastic changes the world has encountered in the last recent years.
- The COVID-19 pandemic and the wars have enforced online education in addition to the highly advanced tools introduced to this market relying on outbreaking methods to enhance educational methods. Some methods demanded integral upgrades and innovation like Zoom. These needs lead to an excessive dependence on the Internet and related technologies.
- Lately, ChatGpt broke through to provide a new turn in supervised independent studies. This powerful tool replaced regular search engines where individuals could ask for a problem and a solution, adding to correcting the path for a more suited answer to the selected path of the problem. The application smashed the concept of creativity in writing but brought a super assistive tool with a wide range of resources astonishing people with its capabilities.
- Meanwhile, older generations are still figuring out what they can do to hold this back, while younger generations are using and upgrading the content and quality of answers received from various artificial assistive tools

Objectives and Originality:

- The aim of the study is to test how effective is the digitalization as a tool of social sustainability for academics in the Egyptian private higher education sector. The digitalization here is a reflection to the intensity of the impact of usage of artificial intelligence in enhancing the performance of professors and its reflection on their quality of life. Moreover, the degree of facilitation and progress it can provide educators in order to provide the best educational experience they can provide to their students.
- The constructs and the analysis are going to build a new map about the actual and futuristic methods of teaching and can open a new window for innovative techniques that can be used in the future.

- The study is tackling new ways in the usage of theoretical implication in the managerial field: one is the dependence on project-based learning in the higher education sector in Egypt, the other is the dependence on Matrec's law which is a derivation from the law of accelerating returns. The interdependence on the usage of these two theories is rather new and original in nature.
- Moreover, the Egyptian educational sector is a fresh one in application for such an idea.

Literature Review

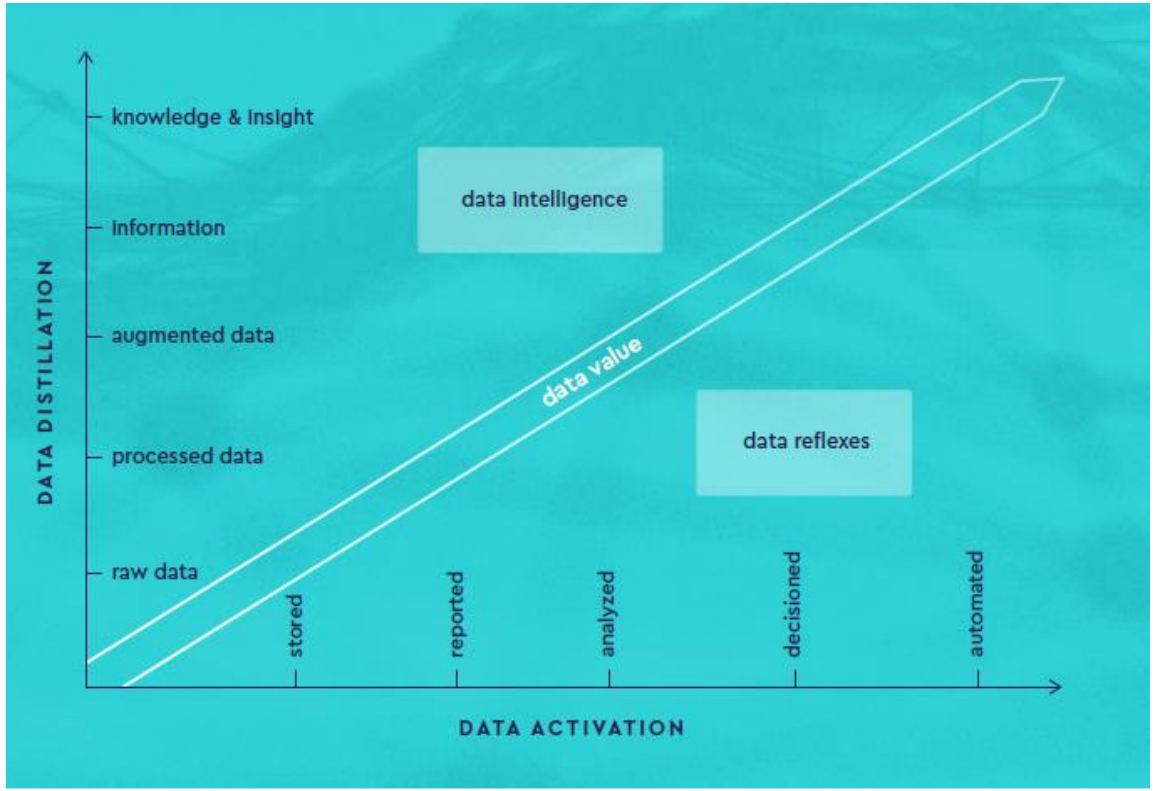


Source: Brinker, S. (2016). Martec's Law: the greatest management challenge of the 21st century, Chief Marketing Technologist

Literature Review

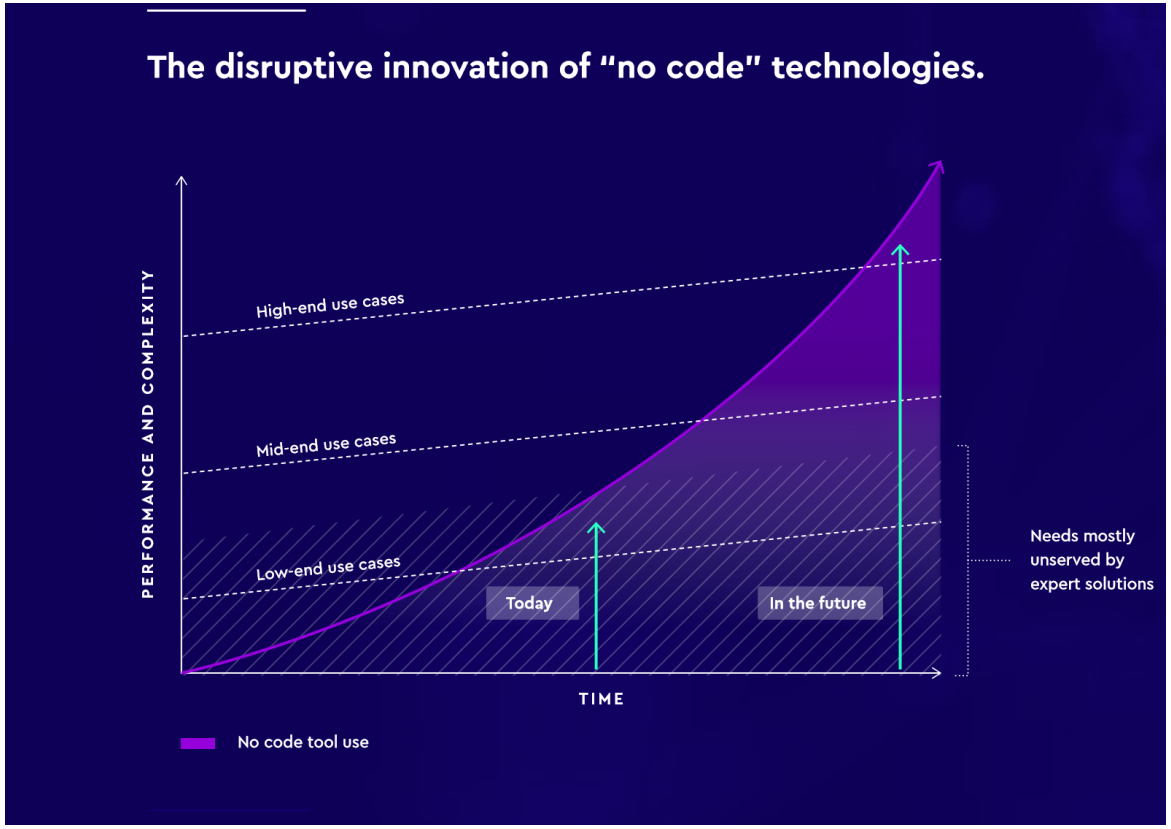
Source: Brinker, S., Baldwin, J. (2020). Martec's 2030: Five trends in marketing technology for the decade of the augmented marketer.

Literature Review



Source: Brinker, S., Baldwin, J. (2020). Martec's 2030: Five trends in marketing technology for the decade of the augmented marketer.

Literature Review



Source: Brinker, S., Baldwin, J. (2020). Martec's 2030: Five trends in marketing technology for the decade of the augmented marketer.

Methodology

- This study will rely mainly on two theories and their backgrounds. The first one is the theory of project-based learning as a tool in enhancing the quality of education by using AI. The second is Matrec's Law, which is a derivation of the law of accelerating returns.
- The study is aiming to address two main assumptions: the first assumption is that artificial intelligence is a tool that can facilitate, enhance and provide variety of ways for professors to engage their students on line and in class. Then:
- H_1: There is a positive correlation between using artificial intelligence illustration methods by professors and the enhanced educational experience for students.

Where we are testing the social sustainability of the professor from a career perspective.

Methodology

- The second assumption will be based on measuring the degree to effectiveness and performance advancement seen by professors in their social sustainability. Then:

- H_2: There is a positive correlation between using artificial intelligence tools and professor's efficiency in time management.

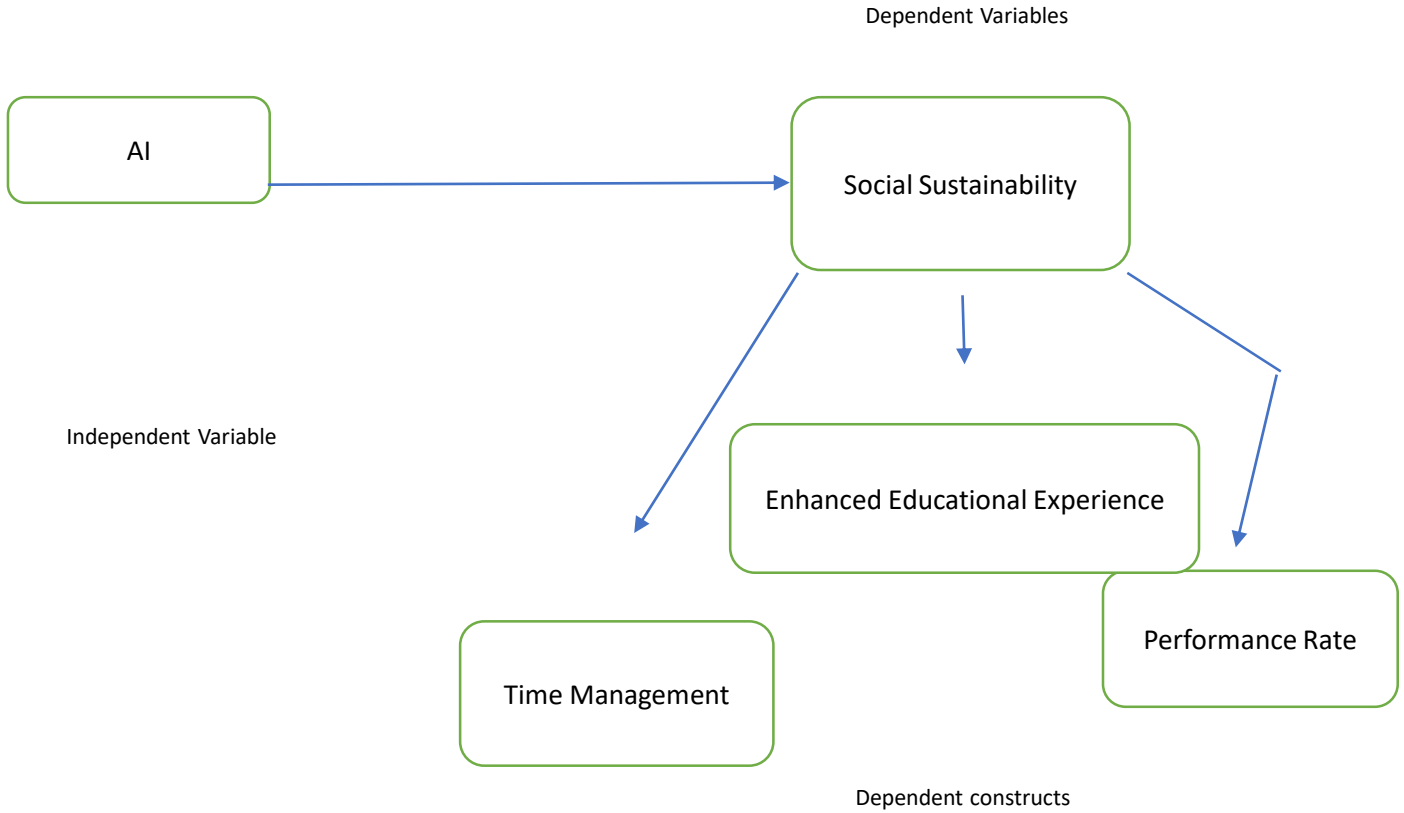
- H_3: There is a positive correlation between using artificial intelligence tools and professor's overall performance rates.

- For the purpose of the study, the enhanced experience of the students will be measured by their rates of attendance and engagement.
- The amount of impact on project-based learning is going to be measured by the degree of reliance of professors on digital learning methods and their reliance on using artificial intelligence in constructing them. The data will be provided by professors through a constructed survey

Methodology

- In the same time, professor's social sustainability will be measured using two parameters. The first one is the amount of time saved due to the usage of artificial intelligence and how it affected the mental health of the educator. The other one is by the degree of approval of the students of the professor's illustration, which can be measured by comparing their student evaluation before and after.
- Another measure will be the advancement in the professor's own career by measuring the career development he/she experienced after using artificial intelligence tools. The artificial intelligence effect will be measured by identifying the amount of reliance on using artificial intelligence tools and the amount of diversification in the tools itself.

Framework Diagram



Operational Definition

- Based on the theories and framework, a survey has been constructed to test the effect of the independent over the dependent.
- Survey composed of 19 questions where 3 of them were open end, 13 were 5 point likert style and 2 dichotomous questions.
- To test AI on academic performance: 6 closed end questions were allocated and one open end.
- To test AI on Time management: 6 closed end questions were allocated and one open end question.
- To test AI on Enhanced Educational Experience 4 closed end questions were allocated and one open end question.
- To test the overall AI importance: 2 closed end questions were allocated and one open end question.
- There is a relationship to be tested between Enhanced Educational Experience and overall AI importance

Population and Sampling

- **Target Population:**
- Private universities in the eastern Cairo.
- Only 4 universities were under investigation.
- All schools were considered.
- The average Faculty members in 4 universities around 150 professors and teaching assistance.
- The population has been calculated using either university website data or directly contacting the Human Resource Department of the university.
- The sample that could have been reached and completed the survey were 42 respondents.

Reliability and Validity

- According to Leven's test (used to test the reliability and validity of variables), the error variance of the dependent variables is equal across groups, which means that the effect of AI is equal for all the dependent variables so that all the dependent variables are affected equally when using AI.

Results

- The results of the multivariate test show that the AI Group significance is 0.010 which is less than 0.05 (significance level) which measures the effect of AI on overall performance, academic performance, time management, and enhanced educational experience. Therefore, the null hypothesis is rejected (H1) and (H0) is accepted. In other words, AI significantly affects professors' human performance.
- The results of tests of equality of covariance also proved that AI has an equal effect on each of the variables as the significance is 0.297 which is greater than 0.005. Therefore, the results accept the null hypothesis that assumes that AI equally affects the dependent variables (human performance).

Results

- In general, the results of the research accept the hypothesis that AI affects the instructors' performance, while the null hypothesis is rejected.

Bibliotheca Alexandrina

ICL Africa 2024

14-17 October

Thank You..

BIBLIOTHECA ALEXANDRINA
مكتبة الإسكندرية

NWU®

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

African Library & Information Associations & Institutions