

AI-driven transformation: advancing information literacy at the British University in Egypt library

Research – Methodology

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Abstract

This study investigates the differing rates of awareness around artificial intelligence (AI) as it relates to undergraduate students at the British University in Egypt (BUE) and examines issues that inhibit the teaching of artificial intelligence, such as lack of consensus on AI tools and their ethical application in an academic environment. The purpose is to incorporate AI literacy into the information literacy program offered at the BUE library with a view to preparing scholars for responsible utilization of these technologies in line with AI guidelines. An action research approach was adopted allowing for continuous development through planning, performing, assessing, and reaction based on what happened.

Findings revealed that there were conspicuous gaps in students' understanding of AI specifically in terms of ethical considerations and practical applications, while there were inconsistencies in the AI usage regulations within different faculties. This means that there is the necessity for uniform guidelines that can help to provide explicit frameworks on ethics. The research also proposes an AI literacy program which was designed and tested during the research and it will be rolled out during the academic year 2024/2025, enabling learners to grasp fundamental aspects as well as uses of AI.

Besides, the study recommends adoption of AI-powered research tools with a view to improving quality of research work.

Keywords

AI literacy, information literacy, academic integrity, ethical use of AI, higher education, academic research, AI tools

Methodology

1. Research Problem

The study addresses the issue of diversity in the skills of BUE students and their awareness of academic considerations regarding the use of AI tools in academic work. This discrepancy in AI knowledge hinders students' ability to effectively utilize AI technologies in their studies.

2. Research Objective

This research aims to improve the current information literacy program of the British University in Egypt Library by integrating AI literacy aspects. The program focuses on equipping students with the skills needed to use AI responsibly and effectively in their academic work, by providing a unified understanding of basic AI tools and ethical issues across all students.

3. Methodology

The action research methodology is effectively used in this study, which involves planning, acting, observing and reflecting in that order. In this way, patrons' experiences and practical examinations continuously improve the AI literacy program. The study will pass by four stages as shown below:

First stage: Planning and Initial Program Development

In the first cycle, a collaborative planning phase was initiated involving the subject librarians and academic staff to identify the specific needs of the academic community regarding AI literacy. Through consultations and a needs assessment questionnaire in an electronic format (Outlook Forms) targeting academic staff across all faculties, data was collected. The aim was to obtain an enactment in the past two years on how these tools are employed and their related challenges as well as what students think regarding AI literacy.

Based on these insights, an initial version of the AI literacy program was designed. The program aimed to cover essential aspects of AI tools, their academic

applications, and the ethical considerations associated with their use. The content included interactive elements such as demonstrations and practical exercises tailored to the identified needs.

Second stage: Initial Implementation and Observation

Afterward, it was implemented during a trial time with few students to test its content and delivery. Observations were made during the session to determine how students interacted with it in order to notice any immediate problems regarding comprehension or participation.

The participants were given questionnaires before and after the session in order to assess their initial levels of AI literacy and how this had changed after attending the session. This helped in understanding how effective the program was as well as what areas needed more improvement.

Third stage: Reflection and Revision

Following the initial implementation, a reflection phase was conducted to evaluate the remarks and observations obtained during the trial run. During this period, the answers rendered by participants based on questionnaires were scrutinized closely and informal chats held to enable obtaining further insights on what was done well, as well as what could be made better.

Based on this reflection, several changes were made to the programme content and delivery techniques in order to improve clarity, engagement and general effectiveness of training. Among the modifications was rephrasing difficult AI concepts, including more interactive components, and matching session tempo with students' current learning requirements.

Final stage: Broader Implementation and Continuous Improvement

Beginning in the next academic year, wider implementation of an amended version of the artificial intelligence literacy policy will be done in a more inclusive manner involving a variety of students from various departments. The aim is to make sure that it keeps pace with what is required by the BUE's academic community through constant feedback and evaluations as the course progresses to reach out to an increasing number of learners. The program will also include orientation for librarians and university professors on how to continue providing it and adjust it accordingly as new developments arise in Artificial Intelligence.