Learning design, learning analytics and artificial intelligence

Faculty of Wellbeing Education and Language Studies (WELS)

Call for PhD projects starting in October 2024

The Open University

Contents

Project description

Unit

Institute of Educational Technology

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Aim

This project aims to identify common design patterns and unique design patterns that educators use to create inclusive, powerful, and engaging teaching and learning activities using big data.

Background

Substantial progress has been made in how educators can be supported to implement effective learning design with learning analytics. However, how educators make micro-decisions in terms of designing individual teaching and

learning activities and how these are related to wider pedagogical approaches has received limited empirical support.

Methodology

We anticipate that the candidate would have strong data mining and other research skills to explore how educators make complex decisions when designing their teaching and learning activities. At present we anticipate that two large datasets would initially be accessible for the PhD candidate (OU learning design, Balanced Design Planner). Based upon the research proposal we would work together with the candidate to determine what combination of methodologies might be best suited to understand how to develop LA and AI approaches to support educators to make more informed and evidence-based design decisions for effective learning and teaching.

References

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Website

https://iet.open.ac.uk/research/programmes/learning-analytics-and-learning-design

PhD project

In this PhD study we want to explore how thousands of educators designed and integrated 20K+ teaching and learning activities in 500+ learning designs using clustering, pattern-mining, and Artificial Intelligence techniques. These could be used to develop learning analytics and AI approaches to support educators to make more informed and evidence-based design decisions for effective learning and teaching. Ideally someone with a strong quantitative/data science background and a passion for education.