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ABSTRACTS PAPERS



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Theme 1. The Digital Revolution

Revolutionizing higher education: A technical review of artificial intelligence integration

Authors:

Hind Albasry, Dadi Chen, Rauf Abdul

Abstract:

Artificial intelligence (AI) storms through, making qualitative breakthroughs in performance and production in all life fields, including higher education. This study presents a comprehensive investigation of diverse dimensions of AI technologies employed in the realm of higher education to outperform current learning outcomes, aiming to utilize automation, optimization, and data-driven decision insights functions offered by Al. A systematic approach is adopted by reviewing the current literature and analyzing the latest case studies to build solid AI architecture by identifying the diverse array of where AI technologies are used in the higher education sector. The study investigates adaptive learning systems, intelligent tutoring systems, virtual assistants, learning analytics, natural language processing (NLP), virtual reality (VL), augmented reality (AR), plagiarism detection tools, automated grading systems, and personalized recommender systems. The results demonstrate the transformative role of AI in restructuring higher education, where AI enhances dramatically pedagogical practices, personalizes learning experiences, improves student engagement and retention, optimizes administrative workflow, and fosters a dynamic educational environment. This study provides the stakeholders in the higher education sector with insight into the AI technologies and architectures that should be adopted to attain a competitive edge and enhance learning outcomes.

Theme 3. Cultural Exchange in a Globalised World

The effects of the multiple facets of culture on mental health: A focus on globalising and evolving agents

Authors:



Kriszta Timea Rostás, Fahad Shakeel

Abstract:

This paper aims to explore the effect of multicultural environments on the mental health of individuals by analysing the influence of different facets of culture on mental health, considering the varying sociocultural contexts and the different social determinants.

The current conceptualizations of culture do not consider a global perspective. Hence this study develops a more global lens to study culture and how a global aspect might be igniting new mental health concerns. The study pertaining to the value pyramid (Shakeel, 2021) is used to model the different facets of culture namely: traditional, transitionary and global. These facets identified within and across these classes are linked to mental health problems through the careful examination of the social determinants pertaining to each specific facet of culture including (a) the social structures of the classification and its inherit bonding designs (b) stress levels connected to societal roles (c) associating coping mechanisms and (d) types of social support. The manifestations of these four characteristics in the three classes lead to formulation of six hypothesis associating distinct cultural facets with mental health issues. The appropriate choice of factors constituting mental health might be subject to change like culture itself, that remains a fundamental dilemma.

We use the notion of cultural facets and posit that the elements within this classification influence mental health problems differently. Our preliminary findings suggest that the traditional cultural classification is predicted to have less frequent mental health issues as compared to a more global culture; however, the global culture moves towards reduced stigmatization and offers rigorous, individual remedial measures suitable for sustainable long term stability.

This study explores the classification of culture with disregard to individual contextual circumstances. Individual contextual circumstances have an important role as mental health detriments (Maté, 2022) which can be explored better in an empirical study. We suggest various potential circumstances as recommendations for future empirical research including individual differences relating to socioeconomic status, gender roles, ethnic origins and generational differences. This study suggests that culture needs to be studied using a broader global lens. A global lens helps understand the changing discourse of culture and how it can manifest itself in different mental health problems.



This study, using a global model, stresses the importance of linking new globally grounded behaviour as antecedents of mental health problems. The consideration of culture, as fluid in nature, helps in better understanding the emerging mental health concerns.

Theme 5. Environmental Challenges

Sustainability leadership – leadership in a new reality

Authors:

Tina Huesing, Joop Remme

Abstract:

The concept of sustainability as introduced by the UN report Our Common Future is defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs". In 2000, the UN Global Compact issued "a call to companies to align strategies and operations with universal principles of human rights, labor, environment and anti-corruption, and take actions that advance societal goals". The introduction of the Sustainable Development Goals brought some goal clarification, but also presented new challenges. Current models of leadership are not suitable to address these challenges. How do our notions of leadership need to change to manage the transition to sustainable business?

Leadership theory has evolved from trait-based to transformational to servant leadership theories; a more recent focus has been a turn from leadership to followership theories. The desire to embrace a new business model based on sustainability requires a new approach to leadership.

In this conceptual paper, we explore the paradigm shift needed for sustainability leadership by applying a negative epistemology. Rather than trying to clarify what "sustainability as a business model" asks from leadership, we suggest that eliminating what we can expect not to be sustainable and therefore not to be included in the leadership needed to achieve a sustainable business model, provides more insight into what sustainability leadership is.

We do know that sustainability is systemic and thereby requires a paradigmatic change approach. Conducting a change program is difficult enough, but when it involves a paradigm shift, it has become exponentially harder. The paradigm shift has to allow for



transformation in multiple areas of the business at the same time resulting in a call for leadership.

As well as systemic, sustainability and the SDGs are universal in nature and global goals. To achieve them, result benefits from a shared effort. This suggests a better fit with leadership models that call for managing shared challenges by sharing leadership. Sustainability and the SDGs are global goals, and we can adopt shared leadership concepts from global leadership theory.

Finally, we explore the link to moral leadership since the SDGs express a moral responsibility not only towards the present generation but also towards future generations. We suggest that the SDGs represent virtues that require leadership based on a virtue perspective, e.g. curiosity and courage in exploring the new realities.

Theme 10. Education in a Globalised Era

Implementation of Eco-systems of Open-Science Schooling: Challenges and insights in four countries

Authors:

Dadi Chen, Hanna Rahma Abdelwahab, Calkin Suero Montero, Aydan Ismayilova, Selina White, Maggie Feng

Abstract:

The objective of the study is to identify the challenges in the implementation of the Ecosystems of Open Science Schooling (Eco-OSS) project as perceived by different stakeholders. The Eco-OSS Project, which started in October 2020, is to help secondary schools and science teachers change traditional science education classrooms to a collaborative and sustainable science learning environment through multiple activities in collaboration with educational institutes, families, enterprises and broader society partners, so that permanent ecosystems of open science schooling can be developed and sustained.

Four secondary schools from four European countries, i.e. Poland, Lithuanian, Romania, and Turkey, participated in the Erasmus+ project. The research was designed based on Vygotsky's Sociocultural Theory and Bronfenbrenner's Ecological Systems Theory. Data



were collected from the interviews with 25 students, teachers, school administrators and ecosystem partners who participated in the project, analysed and visualised with the online analytical tool InfraNodus. The studies of four ecosystems show the shared structure of ecosystem and yet with own particularities in vision and methodology, and the visualisation demonstrates the common topics and knowledge gaps in the description of the participants about OSS ecosystems.

Insufficient alignment between traditional educational frameworks and the OSS model emerged as a significant challenge in the study of the four national and stakeholder groups. In addition, the direct application of OSS around topics like forestry, biodiversity, etc., has led to a tangible impact on student engagement and understanding of science in real-world contexts, as well as communicative and digital competence. The study identified a knowledge gap and research need, particularly on integrating OSS within standard curricula without disrupting regular schooling structure. The integration of OSS into existing educational frameworks calls for comprehensive planning, necessary resources, and strategic alignment with educational policies.