

Review of: "Potentials for Application of Information Technology Trends in Tertiary Institutions in Nigeria"

Panagiotis Kokkinakos¹

¹ National Technical University of Athens

Potential competing interests: No potential competing interests to declare.

The manuscript needs extensive grammar and spelling check; preferably by a native English speaking person. Typical examples of such errors:

- **"This study focuses** on the impact of numerous IT trends on tertiary education**is the main objective of this study,** which gives..."

- Both UK and US English in the document.

In the introduction, the authors could refer to the lockdowns due to COVID-19; this reality imposed (or at least boosted) the exploitation of IT concepts in the domain of education.

How was the timeframe 2015-2023 selected? There is no argumentation on that.

While social media (platforms) are discussed as an IT trend (which is questionable itself), the greatest threat they pose, this of fake news, is not discussed at all.

When discussing blockchain application in higher education institutions, important background work is not referenced, e.g. "..."

"Tertiary education", which is the main application domain of the study, is missing from the keywords.

The authors write that "Information technology trends are the latest techniques, methods, and approaches...". Something that is trending in a domain is not necessarily the latest development in the domain; the authors should back the statement up with some references.

In the same sentence, the authors write "...approaches that are reshaping the industry."; which industry?

Then, starting the following sentence, the authors write: "It encompass topics such as networking..."; what encompasses?

The authors write “In tertiary institutions, these trends include virtual and augmented reality, cloud computing, artificial intelligence, the internet of things, data analytics, and cybersecurity”; this is a statement that should definitely be based on references!

The authors write: “As the world becomes more digital, IT trends provide students with...”. Trends do not provide anything; the adoption of the concepts/tools/etc. provides.

When discussing the state of play in blockchain exploitation in education, important initiatives are missing; indicative sources the authors should refer to include indicatively:

- Kontzinos, C., Kokkinakos, P., Kapsalis, P., Markaki, O., Karakolis, V., & Psarras, J. (2020). Leveraging blockchain, analytics and decision support to facilitate qualifications' verification, recruitment and competency management: the QualiChain project and initial results. *International Journal on Advances in Intelligent Systems* Volume 13, Number 3 & 4, 2020.
- M. Turkanović, M. Hölbl, K. Košič, M. Heričko, and A. Kamišalić, “EduCTX: A blockchain-based higher education credit platform,” *IEEE Access*, 2018, doi: 10.1109/ACCESS.2018.2789929
- W. Gräther, S. Kolvenbach, R. Ruland, J. Schütte, C. F. Torres, and F. Wendland, “Blockchain for Education: Lifelong Learning Passport,” *Proc. 1st ERCIM Blockchain Work. 2018, Reports Eur. Soc. Soc. Embed. Technol.*, 2018.

The authors write “As causes and the foundation for this analysis, the works cover a variety of six IT trends.”. How were these six trends selected? The methodology should be enriched with an objective way to shortlist/select the trends under analysis.

The way that each technological trends is discussed and presented should be consistent!

When discussing “benefits and challenges”, following a structured approach (e.g., a SWOT analysis) would add significant value to the manuscript.

Reading the “Use cases of big data in education” chapter, one might question if “big” data is the case; or casual data analytics techniques. The volume and variety of data might not qualify for big data in the vast majority of the cases.

Specific “Challenges and ethical considerations of data analytics” could be referred to in the context of AI as well.

In the Conclusions chapter, the authors write “This debate explores the significant IT trends affecting the tertiary education sector, including the development of...”:

- What debate?
- Instead of “development”, terms like “potential” or “application” seem more appropriate.

I would position recommendations and future research before conclusions.