8-9-2021

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Recommended Citation
Hwang, Mark I., "Issues in Information Systems Education: A Text Mining Approach" (2021). *AMCIS 2021 TREOs*. 9.
https://aisel.aisnet.org/treos_amcis2021/9

Issues in Information Systems Education: A Text Mining Approach

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Abstract

Issues related to teaching and learning of information systems concepts have been of great interest to IS academics since the inception of the discipline over 60 years ago. A major issue is the curriculum, which has received continued research interest since it was first discussed in the literature in the early 1970s (Ashenhurst, 1972). Under the sponsorship of major professional organizations, first The Association for Computing Machinery (ACM) and then the Association for Information Systems (AIS), a series of model curricula have been developed, culminating with the release of IS2020 in 2021. The interdisciplinary nature of the field and the ever-changing landscape of technology, dictate that curriculum remains a central issue for the years to come.

However, the curriculum is but one aspect of any education. Education can be defined as conducive learning, in which learning is both guided and intended (Frick, 2020). Guided learning is learning facilitated by a teacher and can include a carefully prepared learning environment. Intended learning is learning chosen by the learner. Consequently, equal emphasis should be given to the study of the teacher, the learner, and the environment in which IS education transpires.

Additional IS education issues have been proposed. For example, Topi (2019) discusses five areas for further research in addition to curriculum: The role of IS as an academic discipline, the IS environment, IS education quality improvement, the visibility and impact of IS education research, and the implications of technology-based solutions. It will be interesting to assess how well the various issues have been addressed in the literature to obtain a better understanding of the state of IS education and to provide directions for future research.

Text mining can be defined as "the discovery by computer of new, previously unknown information, by automatically extracting information from different written resources" (Hearst, 2003). The use of text mining has experienced explosive growth in recent years with applications ranging from security to biomedicine. It has also been applied as a literature review tool by several researchers. In IS, Talafidaryani (2020) conducted a topic modeling of the dynamic capabilities literature and identified seven themes. We propose that a similar analysis be performed on the publications of the Journal of Information Systems Education, the premier IS education journal, to identify major IS education issues.

References

Ashenhurst, R. L. (1972). Curriculum Recommendations for Graduate Professional Programs in Information Systems. *Communications of the ACM*, 15(5), 364–398.

Frick, T. W. (2020, in press). Importance of educology for improving educational systems. In J. M. Spector, B. B. Lockee, and M. D. Childress (Eds.), *Learning, Design, and Technology: An International Compendium of Theory, Research, Practice and Policy: Systems Thinking and Change* (E. Kowch, Section Ed.). Basel: Springer Nature Switzerland AG.

Hearst, M. (2003). What is text mining? Available at https://people.ischool.berkeley.edu/~hearst/text-mining.html

Talafidaryani, M. (2020). A text mining-based review of the literature on dynamic capabilities perspective in information systems research. *Management Research Review*, Vol. 44 No. 2, pp. 236-267.

Topi, H. (2019). Invited Paper: Reflections on the Current State and Future of Information Systems Education. *Journal of Information Systems Education*, 30(1), 1-9.