Inquiry, Pedagogy and Technology: Automated Textual Analysis of 30 Refereed Journal Articles (Poster)

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The storehouse of human knowledge and experience is vast, complex, messy and growing exponentially. To cope with the information explosion, scholars in many knowledge domains rely on sophisticated information technologies to search for and retrieve records and publications pertinent to their research interests. But what is a scholar to do when a search identifies hundreds of documents, any of which might be vital or irrelevant to his/her work? More and more scholars are turning to automated content analysis technologies to achieve what they do not have time to do themselves; characterize the global features of a large corpus of work and identify relationships between significant concepts and themes. This study is an informal analysis of 30 refereed journal articles identified using Google Scholar and the keyword set {inquiry, pedagogy, technology, and mathematics or science}. Mathematics (15) and science articles (15) published between 2014 and 2016 were selected, downloaded, and analyzed using Leximancer (http://info.leximancer.com/), a textual analytics tool that extracts an unbiased dictionary of terms from source documents, discovers concepts, and constructs a thesaurus of terms associated with each concept. Findings are presented using textual, tabular, and graphical formats.