Analysis on the Structure of KIS Scientific Words and Concepts Based on Social Network Analysis in the "Web of Science" Database (1993-1997 and 2009-2013)

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Abstract

Purpose: This study aimed at the identification and analyzes of "Knowledge and Information Science (KIS)" scientific articles structure using co-word analysis in the "Web of Science (WoS)" database (1993-1997 & 2009-2013). By co-word analysis of the KIS articles, subjects and concepts of KIS were identified.

Methodology: This study has based on descriptive and functional approach and on co-word analysis, using social network analysis techniques. The study population was selected using the census sampling. Co-word analysis includes 9002 journals' articles (1993-1997) and 16475 journals' articles (2009-2013) in WoS database. Raver Pre-map software, UCINET, NetDraw, SPSS, and Excel were also used. Pearson and chi-square tests have used for inferential side of analysis.

Findings: Co-word analysis showed that before the severe expansion of the Web services (1993-1997), the words "Library" and "Information" had good centrality, but in the recent period (2009-2013) the words "web", "information", "research", "citation analysis", "knowledge", "Library", "journals", and "technology" had high level of centrality in scientific documents.

Originality/Value: The results of study have emphasized the importance of paying more attention to new areas of studies including knowledge organization, study of science and technology, web-based resources, Internet and information technology, and technical development of libraries. The mentioned areas have direct impact on teaching, research and service provision of libraries. By the coping with new trends, the educational policy-makers and planners of KIS can develop the new areas of studies in education of the required training topics and create the new trends in academic research.

Keywords: knowledge and information science, social network analysis, co-word analysis, core concepts.