

# **Understanding the Knowledge, Skills, and Abilities (KSA) of Data Professionals in United States Academic Libraries**

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## **ABSTRACT**

Over the years the library profession has rapidly changed with the advent of technologies. Technology has altered or even at times replaced accustomed duties of librarians, for example, manual card catalogs with bibliographic databases; library building with digital library; library newsletters with social media and so on. Change is not always the easiest thing to accept and libraries tend to be traditional rather than trend-setting innovators. Academic libraries are undergoing numerous changes as a result of big data, data science, e-science, and e-research. Library directors need to re-evaluate the libraries long term goals based on new objectives of data-driven science at their institutions. The current change we are witnessing in academic libraries are new job titles relative to providing data support and the development of research data services (RDS). Library and Information Science (LIS) educators are expected to equip their graduates with the necessary knowledge, skills, and abilities (KSAs) to succeed in the changing job environment. Competencies are holistic concepts where competence embeds skills and skills are precise and definite abilities. This study applies the KSA framework for eScience professionals to data service positions in academic libraries. Understanding KSAs needed to provide data services is of crucial concern. Developing competencies based on KSA could provide a framework for understanding the scope of work data professionals are expected to perform in the academic library. This research uses a mixed methods approach to understand the work-related competencies of data professionals in academic libraries through content analysis of job advertisements and a survey questionnaire. The competencies discovered through this research could be of great significance for LIS educators in need of developing curricula to better prepare students to fill data service positions in the 21st century academic library.

## **TOPICS**

data management; data science; big data; academic libraries