Neha Mishra

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The Journal article I found is titled “**Data Science in data Librarianship: Core Competencies of a data Librarian**”. It is the review of an article. It is published in the Journal of Librarianship and Information Science in 2019. The authors are Alexandra Ribas Semeler, Adilson Quiz Pinto and Helen Beatriz Frota Rozados.

The purpose of this article is to understand the nature of the data and how it helps to understand the technical skills needed by a data librarian. In this article, the authors explain about the concept of data in librarianship, the overview of data science as theory to access data, and finally, it explains about identification of the competencies and skills required by data scientist and data librarians. This   paper explains about data, data librarian skills, data librarianship, data science, data scientist skills and research data.

**Data** can represent objects in the natural world. It can be collected on anything, anytime and anywhere. They are stored in an always-on condition. Data are entered, generated and created in a variety of ways. It can be complex and beyond human control. The term data emerged in the middle of 17 century as the plural of Latin word datum, meaning a single piece of information. Data considered as information that can be stored in digital format including text, numbers, images, video audio, etc. According to Teno et al. (2017), the management of research data is an important role for academic libraries.

**Data Science** is a field of knowledge that combines with computer science and statistics. The aim of data science is to reveal the characteristics of natural, human and social phenomena using data. Data Science has many definitions. The authors suggested that data science is the study of scientific data, study of business data, integration of statistics, computational technology and artificial intelligence, and solutions of scientific and business issues related to the extraction of knowledge.

**Data Scientist** can also be called data analyst, statistician, data developers and data engineers. The term was introduced in 2005 but it became popular in 2012.The definition of Data Scientist is board. A data scientist must be able to work autonomously and have both written and verbal communication proactive. He /she must have ability to query databases and perform statistical analyses. Data scientists can be vertical data scientists, who can have vast knowledge in a particular field and may be familiar with the statistical complexity of data scientist. Horizontal data scientists are a mix of business analysts, computer scientists and domain experts.

**Data librarianship and data librarian**: The term arises from data management and selection from public data produced by government institutions. The creation of data services and data archives are the key factors for the emergence of data librarianship. Data librarian is ad hoc. It is the application of principles, practices and resources of traditional librarianship data. It involves all the traditional stages of librarian work, acquisition, organization and implementation. They need technical skills to extract, analyze and present data. They need to combine skills and knowledge required for data management ,data curation and competencies to support Research Data Management.

**Data scientist skill** as the foundation for data librarians include those of hacker. The hacker’s skills are to extract data from remote where the information is located and to transform it for analysis. Conway (2010) has argues that there are three sets of expertise assigned to data scientist, hacking skills, mathematics, statistical knowledge and substantive expertise. Data scientist must be familiar with recovery disciples, analysis and information visualization. Another area of expertise pertains to basic knowledge of mathematics and statistics. Despite the complex skills of a data scientist, librarians must gradually acquire the aptitude of some of these skills. Data librarian should be particularly concerned with the generation and management of new information services based on data collection and analysis.

Finally, the author explains, a data librarian need not to be a programmer, but should have programming logic of computers. It is believed that data science provides new methods and practices that can help to contribute to researching new data services offered by libraries.

**About the Authors:**

**Alexander Ribas** is a librarian at the Institute of Geoscience of the Federal University of Rio do Sul, Brazil. He is a graduate in Librarianship and Master in communication and information science. His area of research includes interdisciplinary topics in Information Science, e-science, Data Science. He has many publications. This article is cited 9 times in Web of Science. One of his articles is “Librarianship in the Age of Data Science: Data Librarianship Venn Diagram” published in June 2020.

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