

# Defining Data Literacy: An Empirical Study of Data Literacy Dimensions

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## ABSTRACT

Data literacy has become a core component in higher education as it encompasses a range of data skills and the knowledge necessary to deal with data, which are critical in our social and work lives in the advent of big data. Multiple perspectives to define data literacy have emerged from multiple disciplines, including information science, computer science, business, and education. Along with this, there have been efforts to develop a data literacy competency model to enhance our understanding of the required skills for data literacy. But each model has a different focus, context, and target audience – for instance, some efforts are intended to address the data literacy needs of citizens in today’s society because they see data literacy as a life skill, whereas others are intended to define data literacy as one of the essential skills required to perform tasks in a specific career.

Although the importance of data literacy is increasingly recognized, there is no consensus about the definition of data literacy. Further, the constituent dimensions of data literacy remain disputed. As such, this presentation will illustrate the preliminary results of a bibliometric analysis of data literacy literatures in recent ten years. Through citation analysis and topic analysis, this study aims to identify the central dimensions of data literacy and develop an integrated model for data literacy.

## ALISE RESEARCH TAXONOMY TOPICS

Big data; Information literacy; Standards.

## AUTHOR KEYWORDS

Data literacy; Bibliometric analysis; Topic analysis.