To Share or Not to Share?: A Comparative Analysis of Data Sharing Factors by Different Academic Positions

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ABSTRACT

The significance of sharing research data has been critically discussed since data sharing is an essential matter in scientific research where the process needs to create and use the vast amount of data in data-intensive research environment. The institutional or disciplinary context is important to understand research practices and data re-use in scientific fields which encourages collaboration among researchers and promotes their research. However, there have been little studies on data sharing behaviors within institutional or disciplinary context. This study develops a research model based on the integration of institutional theory and the theory of planned behavior by focusing on the community norm of data sharing. This research investigates how essential data sharing factors including regulative pressure by journals, normative pressure, scholarly altruism, perceived career benefit and risk, and perceived effort differ across diverse academic positions such as graduate/post-doctoral researchers, and assistant, associate, and full professors. The survey was conducted with researchers in U.S. academic institutions in STEM disciplines, such as physical sciences, biological sciences, engineering, health sciences, and social sciences, and the total of 1,656 responses were collected. A Multivariate Analysis of Variance is employed to examine the hypothesized relationships between data sharing behaviors and academic positions in the research model. This research will provide theoretical and practical implications for encouraging data sharing in research communities and developing data sharing policies for funding agencies, journal publishers, and academic institutions.