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Factors influencing open science participation through research data sharing and reuse among researchers: a systematic literature review

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Abstract

This systematic literature review investigates the influential factors guiding researchers' active engagement in open science through research data sharing and subsequent reuse, spanning various scientific disciplines. The review addresses key objectives and questions, including identifying distinct sample types, data collection methods, critical factors, and existing gaps within the body of literature concerning data sharing and reuse in open science. The methodology employed in the review was detailed, outlining a series of systematic steps. These steps encompass the systematic search and selection of relevant studies, rigorous data extraction and analysis, comprehensive

evaluation of selected studies, and transparent reporting of the resulting findings. The review's evaluation process was governed by well-defined inclusion and exclusion criteria, encompassing publication dates, language, study design, and research outcomes. Furthermore, it adheres to the PRISMA 2020 flow diagram, effectively illustrating the progression of records through the review stages, highlighting the number of records identified, screened, included, and excluded. The findings include a concise tabular representation summarizing data extracted from the 51 carefully selected studies incorporated within the review. The table provides essential details, including study citations, sample sizes, data collection methodologies, and key factors influencing open science data sharing and reuse. Additionally, common themes and categories among these influential factors are identified, shedding light on overarching trends in the field. In conclusion, this systematic literature review offers valuable insights into the multifaceted landscape of open science participation, emphasizing the critical role of research data sharing and reuse. It is a comprehensive resource for researchers and practitioners interested in further understanding the dynamics and factors shaping the open science ecosystem. © The Author(s), under exclusive licence to Springer-Verlag London Ltd., part of Springer Nature 2024.

Author keywords

Open science; Open science participation; PRISMA 2020; Research data sharing and reuse; Systematic literature review

Indexed keywords

Engineering controlled terms

Data aggregation; Data Science

Engineering uncontrolled terms

Data reuse; Data Sharing; Influential factors; Open science; Open science participation; PRISMA 2020; Research data; Research data sharing and reuse; Systematic literature review

Engineering main heading

Data consistency

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