FAIR Data driven by the Platform MaterialDigital: Exploration of the Data Acquisition Pipeline and Downstream Usage

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Abstract

The FAIR (Findable, Accessible, Interoperable, and Reusable) principles have become increasingly important in the scientific community as they help to ensure that data is shared in a way that is both transparent and accessible. The platform MaterialDigital (PMD) aims to provide prototypical solutions for all processes involved including acquisition, structuring, storage, and processing of data. These different aspects are addressed within the platform's focus areas IT architecture, semantic interoperability, and workflows and disseminated via the working group of the focus area community interaction. In this poster, we showcase a data acquisition pipeline within the context of MaterialDigital and how the employed concepts, most notably the PMD core ontology, ensure that the processed data is FAIR-compliant. We illustrate how MaterialDigital's data acquisition pipeline can be used to streamline data processing tasks. Additionally, we discuss some of the challenges in ensuring that the data is FAIR-compliant and how these challenges can be addressed.

References

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