

# FAIR Coffee 29/06/2022

## FAIR data assessment tools: an evaluation

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Publishing research data using a findable, accessible, interoperable, and reusable (FAIR) approach is paramount to further innovation in many areas of research. The use of tools assessing the FAIRness of data helps the future improvement of data FAIRness and therefore their re-use. This presentation briefs about a recent work where ten FAIR assessment tools had been evaluated and characterized using two datasets from the nanomaterials and microplastics risk assessment domain. The tools were grouped into four categories: online and offline self-assessment survey based, online (semi-) automated and other tools. It was found that the online self-assessment tools can be used for a quick scan of a user's dataset due to their ease of use, little need for experience and short time investment. When a user is looking to assess full databases, and not just a single dataset, for their FAIRness, (semi-)automated tools are more practical. The offline assessment tools were found to be limited and unreliable due to a lack of guidance and an under-developed state. To further characterize the usability, two datasets were run through all tools to check the similarity in the tools' results. As most of the tools differ in their implementation of the FAIR principles, a large variety in outcomes was obtained. FAIR assessment tools still have high potential for development and improvement, and this work sheds light on a set of those tools and gives recommendations for both users and developers on their suitable use cases.