

A method to facilitate the identification of FAIRification objectives

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1. Introduction

The FAIR principles guide making resources accessible, interoperable, and reusable for humans and machines. The process of making data FAIR (FAIRification) is multi-faceted and can be realised by different means. Consequently, to achieve successful FAIRification, it is essential to define clear objectives that will support establishing a cohesive and effective FAIRification process.

2. Results

We present GO-Plan [1], a method for identifying FAIRification objectives, drawing from experience with recent FAIRification projects (e.g., FAIRification of rare disease data) and feedback from FAIR experts. The method consists of six phases: (i) FAIRification preparation, (ii) assessment of FAIR supporting infrastructure and target resources, (iii) preparation of project collaborators, (iv) identification of domain scope and groups of reuse stakeholders, (v) FAIRification goals refinement and alignment to target FAIR principles, and (vi) decision-making. In the first phase, FAIRification preparation tasks are performed. In phase two, the organisation's infrastructure is assessed for its ability to support initial objectives. In the third phase, stakeholders are categorised into domain and FAIR experts, and knowledge gaps between them are addressed to facilitate communication. In the fourth phase, the domain scope, competency questions for modelling (meta)data, and objectives based on potential *reusers* of the FAIR resource are defined. In the fifth phase, the objectives initially identified are further refined. Finally, implementation decisions are made to achieve the FAIRification objectives in phase six. These phases are accompanied by validation sessions with domain and FAIR experts. The FAIRification objectives identified with GO-Plan are used to guide and constrain the subsequent FAIRification (meta)data modelling steps and to support the selection of ontologies to be reused.

3. Discussion

We anticipate that GO-Plan will help stakeholders better define implementation strategies. By establishing clear objectives through the method, people conducting FAIRification can effectively guide and justify implementation choices and determine the (meta)data elements that must be collected and published to facilitate FAIR data reuse.

4. References

- [1] Bernabé et al. A goal-oriented method for FAIRification planning, 23 June 2023, PREPRINT Available at: <https://doi.org/10.21203/rs.3.rs-3092538/v1>

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