

From Principles to Practice: Accelerating FAIR Data Management Training in Health Research for Trainers and Trainees

Martijn G. KERSLOOT ^{a,b,1}, Celia ALVAREZ-ROMERO ^c,
Matthias LÖBE ^d, and Ronald CORNET ^{a,b}

^a*Amsterdam UMC location University of Amsterdam, Department of Medical Informatics, Meibergdreef 9, Amsterdam, The Netherlands*

^b*Amsterdam Public Health, Methodology & Digital Health, Amsterdam, The Netherlands*

^c*Computational Health Informatics Group, Institute of Biomedicine of Seville, IBiS / Virgen del Rocío University Hospital / CSIC / University of Seville, Seville, Spain*

^d*Institute for Medical Informatics, Statistics and Epidemiology (IMISE), University of Leipzig, Germany*

^e*Health Informatics Lab, School of Health Sciences, National and Kapodistrian University of Athens, Greece*

ORCID ID: Martijn G. KERSLOOT <https://orcid.org/0000-0003-3357-3027>

Celia ALVAREZ-ROMERO <https://orcid.org/0000-0001-8647-9515>

Matthias LÖBE <https://orcid.org/0000-0002-2344-0426>

Ronald CORNET <https://orcid.org/0000-0002-1704-5980>

Abstract. Since 2014, the FAIR (Findable, Accessible, Interoperable, and Reusable) Principles have been shaping scholarly data management, but there are still challenges, particularly in training researchers and research support staff to put them into practice. This workshop aims to improve collaboration and coordination among trainers involved in providing and developing FAIR data management training, as well as to collect information from (potential) trainees (e.g., data stewards and researchers). The workshop aims to address these challenges and accelerate training initiatives by jointly evaluating existing educational resources and their reuse, identifying the learning needs of the research community, and exploring collaboration opportunities. During this workshop, participants will gain insights into FAIR data management training and make connections to advance the adoption of the FAIR principles in practice.

Keywords. FAIR Data Principles, Open Educational Resources, Training, Research Data Management.

¹ Corresponding Author: Martijn G. KERSLOOT, Email: m.g.kersloot@amsterdamumc.nl

1. Introduction

To support the reuse of scholarly data, a diverse group of stakeholders came together in 2014 and drafted the FAIR Guiding Principles for scientific data management and stewardship [1]. Almost 10 years later, the principles are increasingly being adopted by institutions [2], and the publication presenting the principles has been cited over 12,000 times. However, researchers, research funding organizations, and research institutions still face challenges in adopting the FAIR principles due to a lack of familiarity, fear of increased costs, perceived additional workload, and insufficient expertise, resources, and incentives [3]. In addition, a lack of basic knowledge about FAIR data stewardship practices among research teams as a significant barrier to putting the FAIR Principles into practice [4, 5]. To address these challenges, various institutes, projects, and consortia are developing educational resources to facilitate the adoption of FAIR practices. However, in order to accelerate training and provide it in a sustainable manner, these efforts must be coordinated across organizational boundaries.

2. Aim, rationale, and outcomes

A broad-based FAIR training approach is essential for accelerating training initiatives and enhancing their impact on the research community. This workshop aims to improve collaboration and coordination among stakeholders involved in FAIR data management training, including trainers (i.e., providers and developers of training materials) and trainees (e.g., data stewards and researchers). We will reach this by evaluating existing educational resources, identifying experts, and exploring collaboration opportunities. The workshop aims to achieve the following outcomes: drafting an overview of existing FAIR data management training materials, identifying learning needs of the health research community, and identifying collaboration opportunities among stakeholders.

3. Program

The workshop program is designed to encourage active participation and collaboration among attendees, and will be structured in five parts (Table 1). The workshop will start with a brief introduction, outlining the workshop's objectives and structure. Following this, participants will be presented with an exemplary showcase of Open Educational Resources for FAIR, providing insights into effective training materials.

The workshop's main activity is an interactive session in which participants will work together to inventory existing learning resources, pinpoint learning needs of the health research community, and identify areas of expertise and collaboration among participants. Facilitated discussions will enable participants to delve deeper into their findings, sharing insights and perspectives to enrich the collective understanding. The workshop will conclude with a summary of key findings and actionable steps for future collaboration and follow-up activities. Participants in the workshop will gain insights into FAIR data management training while also making connections to develop and reuse FAIR training materials in practice.

Table 1. Proposed workshop program

Duration	Activity	Description
5 min.	Introduction	Overview of workshop objectives and structure.
5 min.	Present examples	Demonstration of exemplary FAIR data management training resources.
35 min.	Interactive session	Collaborative session to inventory existing resources, learning needs, and opportunities for collaboration.
10 min.	Discussion	Facilitated discussion on findings and next steps.
5 min.	Wrap up	Summary of key insights and action points.

4. Workshop team

- **Martijn Kersloot** is an Assistant Professor within the Reusable Health Data group at the dept. of Medical Informatics in the Amsterdam Public Health research institute, Amsterdam UMC, and a Product Owner at Castor.
- **Celia Alvarez-Romero** is a PhD student in Molecular Biology, Biomedicine and Clinical Research, at the University of Seville and researcher of the Computational Health Informatics Group at the Virgen del Rocío University Hospital. She is Chair of EFMI's FAIR data Working Group.
- **Matthias Löbe** works in computer science at IMISE Leipzig, focusing on metadata and semantic interoperability for medical research. He is Co-Chair of EFMI's FAIR data Working Group.
- **Ronald Cornet** is a Professor, Principal Investigator and Principal Educator at the dept. of Medical Informatics in the Amsterdam Public Health research institute, Amsterdam UMC. Ronald leads a research group on Reusable Health Data.

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² <https://elixir-europe-training.github.io/ELIXIR-TrP-FAIR-Converge>