nfdi

Section

(Meta)data,
Terminologies,
Provenance

Working Group Charter
**Cookbooks, Guidance,
and Best Practices**

Name of the working group

Cookbooks, Guidance, and Best Practices

Acronym

section-metadata-wg-cookbooks

Contact persons

Susanne Arndt (Technische Informationsbibliothek; NFDI4Ing, NFDI4Phys)
susanne.arndt@tib.eu

Thomas Rose (Goethe-Universität Frankfurt; NFDI4Earth)
t.rose@em.uni-frankfurt.de

Regine Stein (SUB Göttingen; Text+, NFDI4Culture)
regine.stein@sub.uni-goettingen.de

Authors

Susanne Arndt (0000-0002-1019-9151), Felix Burger (0000-0001-6836-1193), Britta Dreyer (0000-0002-0687-5460), Sara Espinoza (0000-0002-5902-650X), Barbara Fischer (https://d-nb.info/gnd/1242064478), Marc Fuhrmans (0000-0002-9826-018X), Christin Henzen (0000-0002-5181-4368), Volker Hofman (0000-0002-5149-603X), Doris Jaeger (), David Linke (0000-0002-5898-1820), Matthias Löbe (0000-0002-2344-0426), Brigitte Mathiak (0000-0003-1793-9615), Thomas Rose (0000-0002-8186-3566), Claudia Saalbach (0000-0002-1748-908X), Aliaksandra Shutsko (0000-0002-7091-5084), Emanuel Soeding (0000-0002-4467-642X), Regine Stein (0000-0003-3406-5104), Dzulia Terzijska (0000-0002-1698-6826)

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Summary

Researchers need guidance in discovering and applying standards, and tools for (meta)data, terminologies, and provenance addressing their specific needs. In the NFDI each consortium identifies, collects, and develops approaches that might be relevant for the broader research activities by and in the communities. The Working Group "Cookbooks, Guidance, and Best Practices" aims at identifying, collecting, exchanging and, where appropriate, harmonizing concepts, workflows, and best practices from consortia related to these topics and will develop support strategies to advance high-quality metadata production and provision.

Zusammenfassung

Forschende brauchen auf ihre spezifischen Bedürfnisse zugeschnittene Hilfestellungen bei der Ermittlung und Anwendung von Standards und Werkzeugen für (Meta)Daten, Terminologien und Provenienz. Jedes NFDI-Konsortium identifiziert, sammelt und entwickelt Ansätze, die für Forschungsaktivitäten außerhalb der einzelnen Domänen relevant sein könnten. Die Arbeitsgruppe "Cookbooks, Guidance, and Best Practices" zielt darauf ab, Konzepte, Arbeitsabläufe und bewährte Praktiken der Konsortien zu diesen Themen zu identifizieren, zu sammeln, auszutauschen und gegebenenfalls zu harmonisieren und wird darüber hinaus Strategien zur Förderung der Produktion und Bereitstellung hochwertiger Metadaten entwickeln.

1. Motivation

A common understanding of (meta)data, terminology, provenance and related sub-concepts is core in data-driven research to foster the provision of [FAIR data](). However, knowledge and implementation of metadata standards, data repositories, terminologies as well as provenance concepts differ within and across disciplines. Several useful concepts, standards, and tools already exist, but researchers often do not know where to find them or how to use them, and as a result, they are hampered in doing their FAIR research activities efficiently.

Researchers need guidance in discovering, applying, and, if needed, modifying proper methods/concepts, standards, and tools for their specific needs in the field of (meta)data, terminologies, and provenance. In the NFDI each consortium identifies, collects, and develops such concepts, standards, and tools that might be relevant for the broader research activities by and in the communities. Collecting, structuring and providing these results, e.g. cookbooks, guidance and best practices, facilitates researchers to focus on their research activities, finding and applying relevant supporting concepts, tools or standards quickly.

In order to create or reuse subject- and application-specific metadata that is at the same time semantically rich, machine-actionable and interoperable, and to interlink data (i.e. [FAIR data]()), a common understanding of quality parameters for metadata is required. Researchers need to be empowered to apply these quality parameters in daily routines. In order to do so, all stakeholders in research need practical and easy-to-use guidelines on how to create FAIR metadata that apply standardized general and domain-specific metadata schemata and terminologies.

2. Objectives

The Working Group Charter "Cookbooks, Guidance, and Best Practices" defines as its objectives the following points:
- Identify, collect, exchange and, where appropriate, harmonize concepts, workflows, and best practices from consortia for the creation of cookbooks/guidance for (meta)data, terminology and provenance-related topics
- Create awareness for the provision of high-quality cookbooks, guidance, and best practices, e.g. for tools, concepts, and standards
- Provide a platform open for contributions by the NFDI community enabling a structured overview on existing cookbooks, guidance, and best practices, potentially resulting in a contribution to an NFDI-wide registry
- Facilitate researchers in understanding fundamental concepts related to the section "(Meta)Data, Terminologies, and Provenance"
- Create awareness on high-quality and FAIR metadata and research data by collecting and providing cookbooks, guidance, and best practices
- Provide strategies on how to find suitable schemata or adapt metadata profiles and find and apply proper terminologies and provenance concepts
- Facilitate reuse of metadata schemas to establish community standards

- Communicate and share results to NFDI and its communities, in particular in collaboration with the section Training & Education
- (optional) Provide templates for cookbooks, guidance, and best practices

3. Work Plan

The working group charter will address the following tasks as part of their work plan:

1. Evaluation of state of the art and needs (Q3-Q4/22)
   1.1. Collection and evaluation of existing cookbooks, guidance, and best practices provided or used by the NFDI consortia
   1.2. Identification of specific needs for cookbooks, guidance, and best practices for (meta)data, terminology and provenance-related topics
   1.3. Collection of examples for high-quality (meta)data as demonstration material
2. Harmonized and structured overview (Q1/23-Q4/23)
   2.1. Developing a concept to structure existing cookbooks, guidance, and best practices based on researchers' needs, e.g. tool-specific or discipline-specific aspects
   2.2. Create and publish the structured overview on existing cookbooks, guidance, and best practices
3. Communication strategy (Q3/23-Q4/23)
   3.1. Develop a communication strategy for the created overview
   3.2. Share and evaluate the strategy with other NFDI sections, in particular address joint dissemination with Section Training & Education
   3.3. Implement the strategy
4. Support strategy (Q3/23-Q2/24)
   4.1. Develop a support strategy for experts to write cookbooks, guidance, and best practices
   4.2. Share and evaluate the strategy with other NFDI sections
   4.3. Implement the revised strategy
5. Creation of cookbooks, guidance, and best practices (Q1/24-Q2/24)
   5.1. Creating relevant documents based on the evaluation results

The schedule is tentative, completion of the work plan depends on the NFDI-wide contributions and support.

4. Initial Membership List

	Name & E-Mail	Institution	NFDI consortia
1	Marc Fuhrmans marc.fuhrmans@tu-darmstadt.de	TU Darmstadt	NFDI4Ing
2	Susanne Arndt susanne.arndt@tib.eu	Technische Informationsbibliothek	NFDI4Ing, NFDI4Phys
3	Barbara Fischer b.k.fischer@dnb.de	DNB AfS	Text+, NFDI4Culture

	Name & E-Mail	Institution	NFDI consortia
4	Aliaksandra Shutsko shutsko@zbmed.de	ZB MED – Informationszentrum Lebenswissenschaften	NFDI4Health
5	Christin Henzen christin.henzen@tu-dresden.de	TU Dresden	NFDI4Earth
6	Matthias Löbe matthias.loebe@uni-leipzig.de	IMISE Universität Leipzig	NFDI4Health
7	Regine Stein regine.stein@sub.uni-goettingen.de	SUB Göttingen	Text+, NFDI4Culture
8	Britta Dreyer/ Felix Burger Britta.Dreyer@tib.eu/ Felix.Burger@tib.eu	Technische Informationsbibliothek	NFDI4Ing, NFDI4Chem
9	Doris Jaeger doris.jaeger@kit.edu	KIT	
10	Thomas Rose t.rose@em.uni-frankfurt.de	Goethe-Universität Frankfurt	NFDI4Earth
11	Sara Espinoza sara.espinoza@dechema.de	DECHEMA e.V.	NFDI4Cat
12	Claudia Saalbach csaalbach@diw.de	DIW Berlin	KonsortSWD
13	Dzulia Terzijska dzulia.terzijska@tu-braunschweig.de	TU Braunschweig	NFDI4Ing
14	Emanuel Soeding esoeding@geomar.de	GEOMAR	NFDI4Earth
15	Brigitte Mathiak Brigitte.Mathiak@gesis.org	GESIS	KonsortSWD
16	David Linke david.linke@catalysis.de	Leibniz-Institut für Katalyse e.V., Rostock	NFDI4Cat
17	Volker Hofman v.hofmann@fz-juelich.de	Fz Jülich, Institut Materials Data Science and Informatics	NFDI MatWerk

5. Adoption Plan

The consortia will recommend the results of this working group to their respective communities and use them in their dissemination strategy.

Represented consortia commit to adopt the results within their dissemination and training activities:
NFDI4Ing
Text+
NFDI4Culture
NFD4Health
NFDI4Earth
NFDI4Chem
NFDI4Cat
KonsortSWD
NFDI MatWerk

Input and needs of other consortia will continuously be integrated into the WG's activities, thus promoting the adoption of the results in these consortia as well.

Connections to other WGs in Section (Meta)data, Terminologies and Provenance
WG Ontology Harmonization and mapping
WG Terminology Services

Connection to other NFDI sections
Edutrain

Connections outside of NFDI
Helmholtz Metadata Collaboration