OpenAIRE Guidelines

Release 1.0 alpha

OpenAIRE

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Contents

These guidelines describe the application profile for Software Repository managers to be compatible with OpenAIRE.

Introduction

1.1 Aim

The OpenAIRE Guidelines for Software Repository Managers 1.0 provide orientation for software repository managers to define and implement their local software management policies in exposing metadata for software products. These guidelines are intended to provide indications on how to make software products citable in order to make them first-level citizen of an Open Science, interlinked scholarly communication ecosystem. By adhering to the guidlines exposure, visibility, and re-use of repository content will be significantly increased.

OpenAIRE is happy to assist in adherence to these guidelines.

1.2 OpenAIRE (Open Access Infrastructure for Research in Europe)

According to the content acquisition policies of the OpenAIRE infrastructure, metadata from software archives can be included in the OpenAIRE information space when:

- the software is an open source research software,
- the software is related to a publication or a dataset already in OpenAIRE e.g. a software referred by an open access article,
- the software is linked to a project.

1.3 Rationale

The goal of the OpenAIRE guidelines for software is to give immediate visibility of software as a "citable research product" based on the current state of the art in the scholarly communication, while indicating the way towards "good software citation practices". Research software is currently available from the following kinds scholarly communication repositories:

- Institutional repositories: software descriptions are currently provided as Dublin Core metadata records

- Data repositories: software descriptions are currently provided as DataCite/DataVerse metadata records

- Software repositories: most of them are software repositories a-la-GitHub, where metadata is oriented to software re-use, rather than citation; in some cases they are defined as research repositories, hence including metadata for discovery and citation

The guidelines aim at making these repositories readily compliant so as to start exposing software entities to discovery and citation services. This means the guidelines should be endorsed by the community (e.g. include properties that reflect the need of software citation), do not impose high efforts to sources (e.g. mandatory citation metadata not available to sources), while recommending best practices (e.g. placing metadata recommended/optional for citation). Accordingly, the guidelines have been defined with a pragmatic approach, keeping mandatory properties to the minimum, focusing on properties for citation (attribution and access), disregarding discover-for-reuse properties, but keeping in mind that any property can be added in the future to reflect changes that should and hopefully will occur at the repositories side and in the behaviour of scientists who create, share, cite, and re-use research software. The guidelines take inspiration from the following initiatives on software description and citation:

- Force 11 Software Citation Principles

- DataCite

- OpenMinTed SHARE-OMTD

- Codemeta initiative

- DOE CODE initiative

Mappings from the OpenAIRE guidelines to such initiatives are available here and open to comments and revision.

CHAPTER 2

Application Profile Overview

This documentation uses the following namespace abbreviation:

- `datacite`: http://datacite.org/schema/kernel-4

OpenAIRE-Field	Metadata Element
datacite:identifier	datacite:identifier
oas:author	datacite:creator
oas:contactPerson	datacite:contributor
oas:contactGroup	datacite:contributor
oas:name	datacite:title
oas:repository	datacite:publisher
oas:softwareType	datacite:resourceType
datacite:subject	datacite:subject
oas:releaseDate	datacite:date
oas:descriptionLanguage	datacite:language
datacite:alternateIdentifier	datacite:alternateIdentifier
oas:landingPage	datacite:alternateIdentifier
oas:distributionLocation	datacite:alternateIdentifier
oas:documentation	datacite:relatedIdentifier
oas:relation	datacite:relatedIdentifier
oas:programmingLanguage	datacite:format
oas:versionNumber	datacite:version
oas:accessRights	datacite:rights
oas:licenseCondition	datacite:rights
datacite:description	datacite:description
oas:tool	datacite:description
datacite:fundingReference	datacite:fundingReference
oas:distributionForm	datacite:description

2.1 Examples of valid metadata records

Example

Acknowledgements & Contributors

Editors

- Miriam Baglioni (CNR, Italy)
- Alessia Bardi (CNR, Italy)
- Paolo Manghi (CNR, Italy)
- Leo Mack (JISC, UK)

Experts & Reviewers

OpenAIRE

- Jochen Schirrwagen (Bielefeld University, Germany)
- Claudio Atzori (CNR, Italy)
- Lars Holm Nielsen (CERN, Switzerland)
- Leo Mack (JISC, UK)

SoftwareHeritage

- Roberto Di Cosmo (INRIA, France)

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- Shelby Stooksbury (DOE project coordinator)
- Lynn Davis
- Carly Robinson
- Lance Vowell

Software Sustainability Institute (SSI)

- Neil Chue Hong (SSI director)

University of Manchester

- Carole Goble