

CovidStat @ INFN Open Access Repository

R. Barbera, R. Bruno, M. Fargetta, R. Rotondo
(in collaborazione con D. Menasce)

9 aprile 2019

Principi FAIR (www.go-fair.org/fair-principles/)

FAIR Principles

Compliance

Findability



Resource and its metadata are easy to find by both, humans and computer systems. Basic machine readable descriptive metadata allows the discovery of interesting data sets and services.

- F1. Resource is uploaded to a public repository.
- F2. Metadata are assigned a globally unique and persistent identifier.

Accessibility



Resource and metadata are stored for the long term such that they can be easily accessed and downloaded or locally used by humans and ideally also machines using standard communication protocols.

- A1. Resource is accessible for download or manipulation by humans and is ideally also machine readable.
- A2. Publications and data repositories have contingency plans to assure that metadata remain accessible, even when the resource or the repository are no longer available.

Interoperability



Metadata should be ready to be exchanged, interpreted and combined in a (semi)automated way with other data sets by humans as well as computer systems.

- I1. Resource is uploaded to a repository that is interoperable with other platforms.
- I2. Repository meta- data schema maps to or implements the CG Core metadata schema.
- I3. Metadata use standard vocabularies and/or ontologies.

Reusability



Data and metadata are sufficiently well-described to allow data to be reused in future research, allowing for integration with other compatible data sources. Proper citation must be facilitated, and the conditions under which the data can be used should be clear to machines

- R1. Metadata are released with a clear and accessible usage license.
- R2. Metadata about data and datasets are richly described with a plurality of accurate and relevant attributes.

INFN Open Access Repository (pilot)

The screenshot shows the INFN Open Access Repository homepage. At the top, there is a search bar, an upload button, and a communities section. A 'Log in' button is also present. Below this, a 'Latest entries' section displays four research outputs:

- Plan S e le società scientifiche – una rivoluzione per l'Open Access?** (February 22, 2020) - Journal article, Open Access. Summary: Pagare per scrivere o pagare per leggere? O magari pagare due volte, sia per scrivere sia per leggere? Valutare il contenuto dell'articolo oppure il suo contenitore? Dove finiscono i diritti degli scrittori e iniziano quelli dei lettori? L'accesso alla scienza pubblica deve essere gratuito ed...
Uploaded on February 22, 2020.
- INFN use-case: Open Access Repository** (January 21, 2020) - Presentation, Open Access. Summary: INFN OAR Presentation at the InvenioRDM Project Meeting held at CERN 20-24 January 2020.
Uploaded on January 21, 2020.
- Dimensional reduction in networks of non-Markovian spiking neurons: Equivalence of synaptic filtering and heterogeneous propagation delays** (October 8, 2019) - Journal article, Open Access. Summary: Understanding the collective behavior of the intricate web of neurons composing a brain is one of the most challenging and complex tasks of modern neuroscience. Part of this complexity resides in the distributed nature of the interactions between the network components: for instance, the neurons...
Uploaded on November 14, 2019.
- Science Reproducibility and Reusability with FutureGateway and a Zenodo-like repository: the PALMS experiment** (October 16, 2019) - Poster, Open Access. Summary: Open Science (OS) is a powerful and novel paradigm to share knowledge across multidisciplinary scientific communities with the aim to improve the quality of science. One of the most important OS enablers are the FAIR principles, which

A central summary box titled 'INFN Open Access Repository at a glance' lists the following features:

- Research. Shared.** – all research outputs from across all domains of INFN research are welcome!
- Findable. Citable. Discoverable.** – each upload gets a Digital Object Identifier (DOI) to make it easily and uniquely citable. You can (automatically) link your research outputs to your ORCID profile.
- Communities** – create and curate your own community for a workshop, project, Division, Laboratory, service, journal, etc. into which you can accept or reject uploads.
- Funding** – you can associate an upload to the grant that has funded the work.
- Flexible licensing** – you can choose among several licenses. You can also upload closed or embargoed research outputs.

Below this is a 'Tweets by @INFN_' section with a tweet from the INFN Twitter account (@INFN_) about solving an observational anomaly involving blazars.

- Adopts leading-edge technologies in the domain of digital repositories
- Includes the possibility for digital assets, offered by the new Zenodo GUI, to be stored in the repository not only open access but also embargoed, restricted and closed
- Exploits the concept of “communities”, which is central in the Zenodo architecture, to cope with several aggregation of contents: per INFN division, per Scientific Committee, per project, per initiative, etc.
- Open to non-INFN users (thanks to the concept of «Communities»)
- Supports DOI versioning
- Is compliant with FAIR principles
- Is compliant with Plan S requirements

<http://openaccessrepository.it>

(Meta)Data model di CovidStat in OAR

Metadati

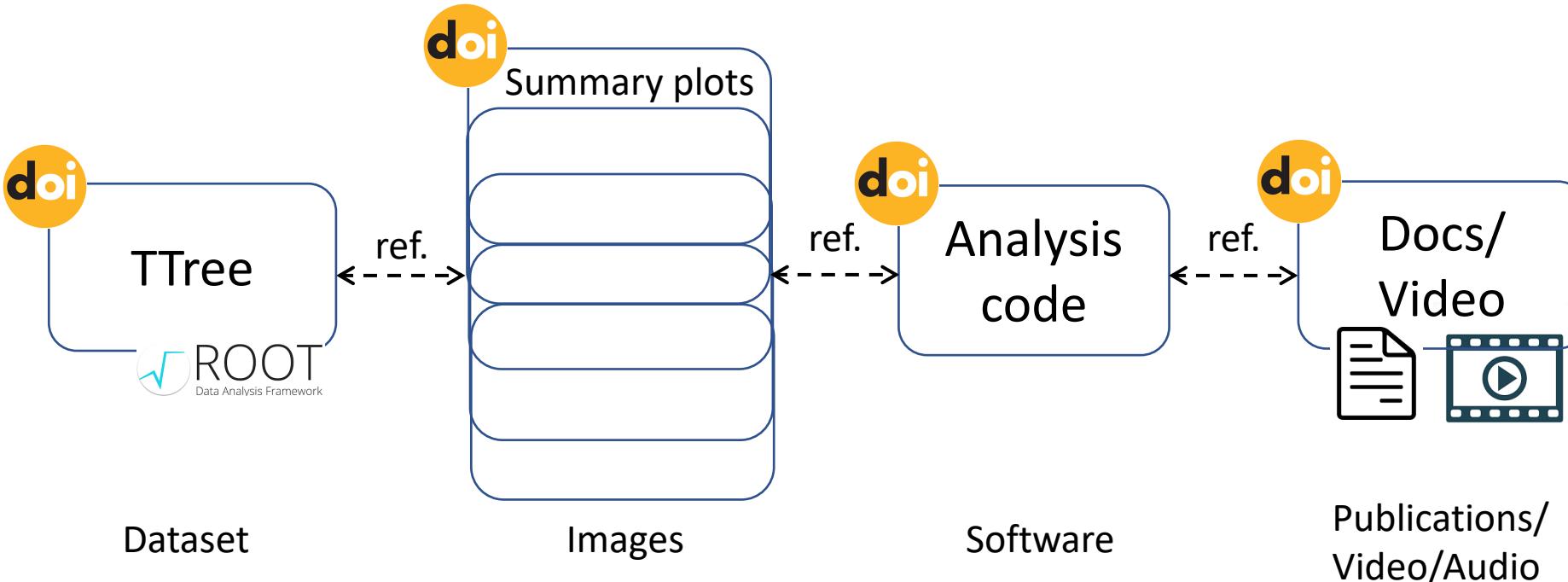
- Data
- Versione
- Keyword
- Licenza
- <altri>

- Data
- Versione
- Keyword
- Licenza
- <altri>

- Data
- Versione
- Keyword
- Licenza
- <altri>

- Data
- Versione
- Keyword
- Licenza
- <altri>

Dati



Content type

Live demo

(<https://www.openaccessrepository.it/communities/covidstat-infn>)

Principi FAIR – implementazione attuale di CovidStat-INFN

FAIR Principles	Compliance
Findability  Resource and its metadata are easy to find by both, humans and computer systems. Basic machine readable descriptive metadata allows the discovery of interesting data sets and services.	F1. Resource is uploaded to a public repository. ✓ F2. Metadata are assigned a globally unique and persistent identifier. ✓
Accessibility  Resource and metadata are stored for the long term such that they can be easily accessed and downloaded or locally used by humans and ideally also machines using standard communication protocols.	A1. Resource is accessible for download or manipulation by humans and is ideally also machine readable. ✓ A2. Publications and data repositories have contingency plans to assure that metadata remain accessible, even when the resource or the repository are no longer available. ✓
Interoperability  Metadata should be ready to be exchanged, interpreted and combined in a (semi)automated way with other data sets by humans as well as computer systems.	I1. Resource is uploaded to a repository that is interoperable with other platforms. ✓ I2. Repository meta- data schema maps to or implements the CG Core metadata schema. ✓ I3. Metadata use standard vocabularies and/or ontologies. ←
Reusability  Data and metadata are sufficiently well-described to allow data to be reused in future research, allowing for integration with other compatible data sources. Proper citation must be facilitated, and the conditions under which the data can be used should be clear to machines	R1. Metadata are released with a clear and accessible usage license. ✓ R2. Metadata about data and datasets are richly described with a plurality of accurate and relevant attributes. ✓

Conclusioni preliminari

- CovidStat INFN non è l'unico sito/progetto di presentazione/analisi dei dati di COVID19
 - Italia:
 - <https://www.piersoft.it/covid19/>
 - Mondo:
 - <https://www.worldometers.info/coronavirus/>
- Ma di sicuro è l'unico FAIR... in linea con il Piano del MUR sull'Open Science