

Portfolio PUBLISH

Brief presentation of the four OpenAIRE services that assist researches to practice open science.

Service: Zenodo , Jose Benito Gonzalez Lopez / Alex Ioannidis (CERN)

Service: Episciences, Raphael Tournoy (CNRS)

Service: ARGOS, Elli Papadopoulou (Athena RC)

Service: Amnesia, Manolis Terrovitis (Athena RC)



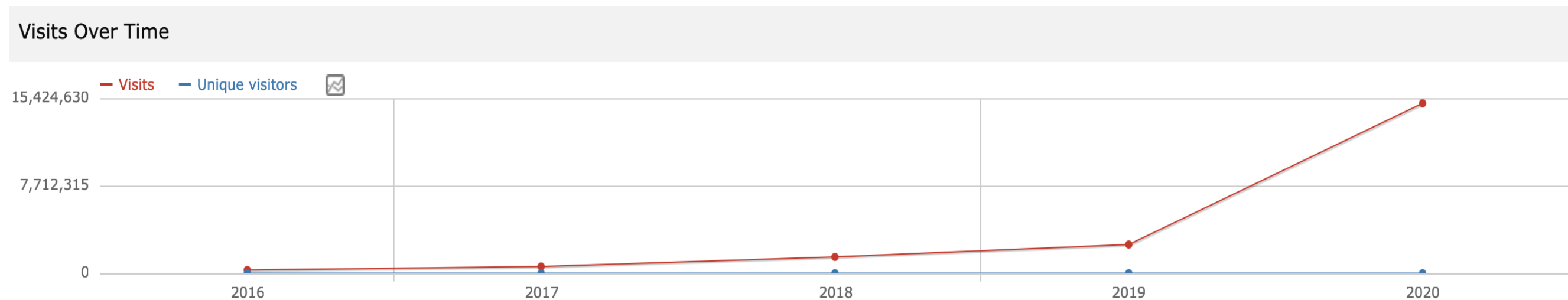
Alex Ioannidis
CERN/Zenodo



Catch-all repository for the long tail of research

Overview of Zenodo

- Digital **multi-disciplinary** repository
- Hosted at CERN's datacenter
- For **all types** of research objects; by default, 50GB per record
- Rich metadata; integrated with funding agencies (EC)
- **REST API** for programmatic usage; **OAI-PMH** for harvesting
- **2021: 15M** visitors/year; **~2M** records; **~0.5PB** files



Why to use Zenodo by Whom

- It **provides** reliable infrastructure for all researchers, especially those w/o a dedicated domain/institutional repository
- It **lowers barriers** to share data, software, or any research output in a FAIR and hassle-free way
- It **exposes** usage statistics and citations
- It is part of EOSC, adds value to EOSC users by allowing them to easily share their research
- Is used by: Researchers, research communities, project coordinators/principal investigators

How to use Zenodo

zenodo

December 31, 2018

Fig. 7 in A mountain of millipedes VI. New records, new species, a new genus and a general discussion of Odontopygidae from the Udzungwa Mts, Tanzania (Diplopoda, Spirostreptida, Odontopygidae)

Enghoff, Henrik

Fig. 7. Hoffmannides dissutus (Hoffman, 1963), ♂, from Udzungwa Mts National Park. Photograph by A. Illum. Scale bar = 5 mm.

Part of Biodiversity Literature Repository

Indexed in OpenAIRE

Publication date: December 31, 2018

DOI: 10.5281/zenodo.1146170

Keywords: Biodiversity, Taxonomy, Animals, Arthropods, Diplopoda, Spirostreptida, Odontopygidae

Published in: European Journal of Taxonomy, 39

Related identifiers: Cited by: http://treatment.plazi.org/id/038D2B64FA3FFA2FDA4FEBA0892EF8E (LSID), https://zenodo.org/record/1146158, 10.5852/ejt.2018.394, https://zenodo.org/record/1146158

Communities: Biodiversity Literature Repository

License (for files): License Not Specified

Versions: Version 1 10.5281/zenodo.1146170

Cite all versions? You can cite all versions of this record. This DOI represents the record and will always resolve to the latest one. Record DOI: 10.5281/zenodo.1146169

Share: Facebook, Twitter, LinkedIn, Email, Print

Cite as: Enghoff, Henrik. (2018, December 31) mountain of millipedes VI. New records

Web UI

REST API

zenodo Developers

About Blog Help Dev

Quickstart - Upload

This short guide will give a quick overview of how to upload and publish on Zenodo, and will be using Python together with the [Requests](#) package.

- First, make sure you have the [Requests](#) module installed:
- Next, fire up a Python command prompt:
- Import the `requests` module:
- We will try to access the API without an authentication token:

```
$ pip install requests
```

```
$ python
Python 3.6.5
[GCC 4.8.1] on linux2
Type "help", "copyright", "credits" or "license()"
>>> import requests
>>> r = requests.get("https://zenodo.org/api/deposit_urls")
>>> r.status_code
401
>>> r.json()
{"message": "The server could not verify that you the URL requested. You either supplied the wrong password(s), or your browser doesn't understand how to send the request."}
```

zenodo-testing/my-project

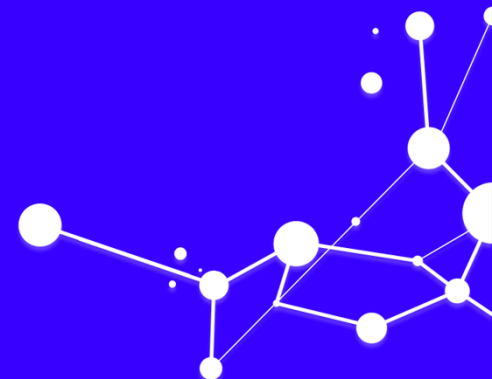
DOI 10.5072/zenodo.147412

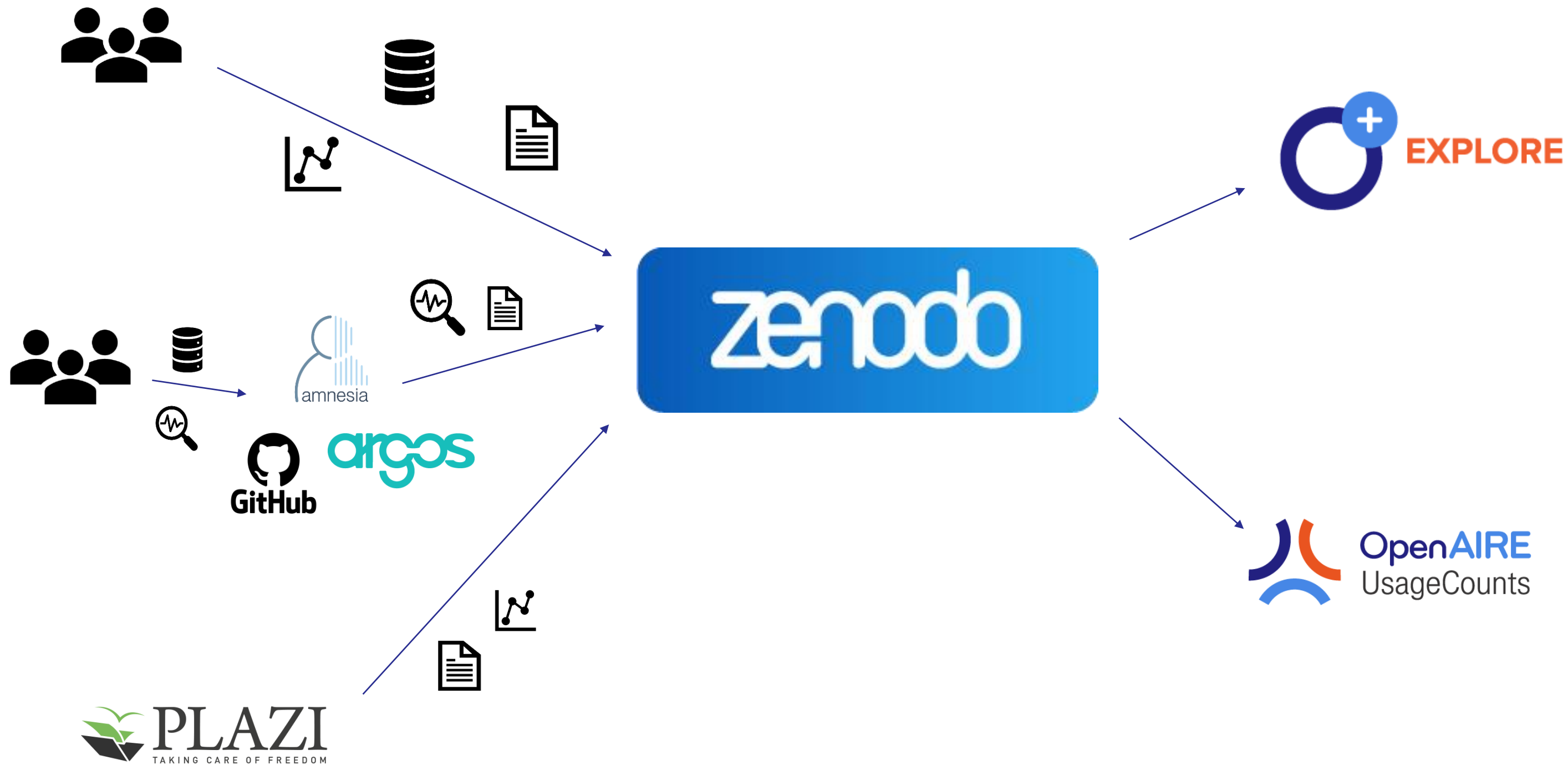
GitHub / Releases

- 1.0.14 zenodo-testing/my-project: test ✓ Published
DOI: 10.5072/zenodo.147412
1 year, 11 months ago
- 1.0.12 zenodo-testing/my-project: test ✓ Published
DOI: 10.5072/zenodo.147410
1 year, 11 months ago
- 1.0.0 zenodo-testing/my-project: Test ✓ Published
DOI: 10.5072/zenodo.135430
2 years ago
- 11 zenodo-testing/my-project: test2 ✓ Published
DOI: 10.5072/zenodo.73410
2 years ago

GitHub integration

Positioning in EOSC & OpenAIRE Ecosystem





Takeaway

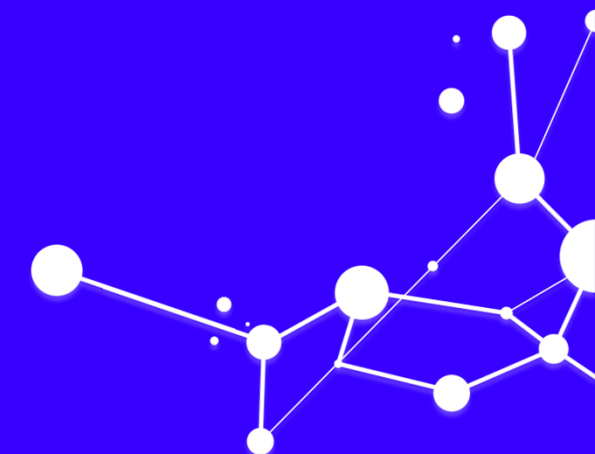
- Free data sharing repository for everyone, made easy
- Following best practices in scholarly communication
 - More than papers, promoting reproducibility



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#OpenAIRE-Nexus

THANK YOU

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Raphaël Tournoy
CNRS



épisciences

An overlay journal platform

Overview of Episciences

- Website: www.episciences.org
- An overlay **journal platform**
- Operating on top of OA repositories e.g. [HAL](#), [arXiv](#), [CWI](#), [Zenodo](#) (very soon), ...
- **Scientific communities can create and operate high-quality OA journals**
- **Diamond Open Access publishing**

Why to use Episciences by whom

- **Saves time** for readers, researchers and editorial teams
- End-to-end **compatible** with **FAIR** principles
- Operated by researchers and their scientific communities
- **Cost efficient**, independent from the publishers
- Hosted in Europe on public infrastructure
- Is for scientific communities

How to use Episciences

- Each journals has its own domain name

Example with:



Hosted on:

<https://lmcs.episciences.org/>

A screenshot of the Logical Methods in Computer Science (LMCS) journal website. The header includes the LMCS logo and the text 'LOGICAL METHODS IN COMPUTER SCIENCE'. A navigation menu on the left lists: Home, Search, Browse..., Authors, About, FAQ, Documentations, Contact/Tech. Support, Supporters, and My Account. The main content area is titled 'Recently published' and features an article titled 'A Sound Algorithm for Asynchronous Session Subtyping and its Implementation' by Bravetti, Mario; Carbone, Marco; Lange, Julien; Yoshida, Nobuko; and Zavattaro, Gianluigi. The article text discusses session types and subtyping. On the right, the 'Managing Editors' section lists Stefan Milius (Editor-in-Chief), Brigitte Pientka, and Fabio Zanasi (Executive Editors). Below this is the 'Editorial Board Executive Board Publisher' section and the ISSN number 1860-5974.

How to use Episciences

Step 1/4 : Submit your preprint
on a repository, eg arXiv:

<https://arxiv.org/abs/1802.05734v1>

arXiv.org > math > arXiv:1802.05734v1

Search...

Help | Advance

Mathematics > Logic

[Submitted on 15 Feb 2018 (this version), latest version 23 Apr 2020 (v10)]

Writability and reachability for alpha-tape infinite time Turing machines

Merlin Carl, Benjamin Rin, Philipp Schlicht

Infinite time Turing machines with tape length α (denoted T_α) were introduced by Rin to strengthen the ω -tape machines of Hamkins and Kidder. It is known that for some countable ordinals α , these machines' properties are quite different from those of the ω -tape case. We answer a question of Rin about the size of the least ordinal δ such that not all cells are halting positions of T_δ by giving various characterizations of δ . For instance, it is the least ordinal with any of the properties (a) there is a T_α -writable real that is not T_δ -writable for some $\alpha < \delta$, (b) δ is uncountable in L_{λ_δ} , or (c) δ is a regular cardinal in L_{λ_δ} , where λ_δ denotes the supremum of ordinals with a T_δ -writable code of length δ . We further use these characterizations together with an analogue to Welch's submodel characterization of the ordinals λ , ζ and Σ , to show that δ is closed under the function $\alpha \mapsto \Sigma_\alpha$, where Σ_α denotes the supremum of the ordinals with a T_α -accidentally writable code of length α .

Subjects: **Logic (math.LO)**; Logic in Computer Science (cs.LO)

Cite as: [arXiv:1802.05734](https://arxiv.org/abs/1802.05734) [math.LO]

(or [arXiv:1802.05734v1](https://arxiv.org/abs/1802.05734v1) [math.LO] for this version)

Submission history

From: Philipp Schlicht [[view email](#)]

[v1] Thu, 15 Feb 2018 19:55:02 UTC (23 KB)

How to use Episciences

Step 2/4 : Import your preprint on a journal with your preprint ID: [1802.05734v1](#)

On a journal, eg [LMCS](#) for this example

Submit an article

Guidelines

You are about to submit a paper. Please check:

- that your paper is deposited on an open access repository (arXiv)
- that you have its identifier at hand

The paper's identifier, its version and the repository it is located on are information that need to be entered in the form below. Metadata will automatically be retrieved and you will see a summary of your paper before confirming the submission - please check that this is the manuscript you wish to submit to the journal.

** Required fields*

Repository

Document identifier * *Enter the document identifier.*

Version * *Enter the document version (number only).*

How to use Episciences

Step 3/4 :

- Multiple rounds of peer-review
- New improved versions
- Copy-editing

Reachability for Turing machines with long tapes

Merlin Carl, Benjamin Rin, Philipp Schlicht

Infinite time Turing machine models with tape length α , denoted T_α , strengthen the machines of Hamkins and Kidder [HL00] with tape length ω . A new phenomenon is that for some countable ordinals α , some cells cannot be halting positions of T_α given trivial input. The main open question in [Rin14] asks about the size of the least such ordinal δ .

We answer this by providing various characterizations. For instance, δ is the least ordinal with any of the following properties: (a) For some $\xi < \alpha$, there is a T_ξ -writable but not T_α -writable subset of ω . (b) There is a gap in the T_α -writable ordinals. (c) α is uncountable in L_{λ_α} . Here λ_α denotes the supremum of T_α -writable ordinals, i.e. those with a T_α -writable code of length α .

We further use the above characterizations, and an analogue to Welch's submodel characterization of the ordinals λ , ζ and Σ , to show that δ is large in the sense that it is a closure point of the function $\alpha \mapsto \Sigma_\alpha$, where Σ_α denotes the supremum of the T_α -accidentally writable ordinals.

Subjects: **Logic (math.LO)**; Logic in Computer Science (cs.LO)

Cite as: [arXiv:1802.05734](https://arxiv.org/abs/1802.05734) [math.LO]

(or [arXiv:1802.05734v5](https://arxiv.org/abs/1802.05734v5) [math.LO] for this version)

Submission history

From: Philipp Schlicht [[view email](#)]

[v1] Thu, 15 Feb 2018 19:55:02 UTC (23 KB)

[v2] Wed, 21 Feb 2018 07:58:12 UTC (23 KB)

[v3] Mon, 21 Jan 2019 17:35:28 UTC (28 KB)

[v4] Thu, 23 May 2019 11:53:38 UTC (29 KB)

[v5] Thu, 5 Dec 2019 20:00:10 UTC (31 KB)

[v6] Tue, 10 Dec 2019 07:28:22 UTC (31 KB)

[v7] Mon, 9 Mar 2020 08:05:29 UTC (31 KB)

[v8] Wed, 8 Apr 2020 14:35:32 UTC (39 KB)

[v9] Mon, 20 Apr 2020 20:35:58 UTC (41 KB)

[v10] Thu, 23 Apr 2020 09:08:19 UTC (41 KB)

How to use Episciences

Step 4 : Publish

Reachability for infinite time Turing machines with long tapes

Merlin Carl, Benjamin Rin, Philipp Schlicht

arXiv.org

Infinite time Turing machine models with tape length α , denoted T_α , strengthen the machines of Hamkins and Kidder [HL00] with tape length ω . A new phenomenon is that for some countable ordinals α , some cells cannot be halting positions of T_α given trivial input. The main open question in [Rin14] asks about the size of the least such ordinal δ .

We answer this by providing various characterizations. For instance, δ is the least ordinal with any of the following properties: (a) For some $\xi < \alpha$, there is a T_ξ -writable but not T_α -writable subset of ω . (b) There is a gap in the T_α -writable ordinals. (c) α is uncountable in L_{λ_α} . Here λ_α denotes the supremum of T_α -writable ordinals, i.e. those with a T_α -writable code of length α .

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Subjects: **Logic (math.LO)**; Logic in Computer Science (cs.LO)

Journal reference: Logical Methods in Computer Science, Volume 16, Issue 2 (April 24, 2020)
Imcs:6429

DOI: [10.23638/LMCS-16\(2:2\)2020](https://doi.org/10.23638/LMCS-16(2:2)2020)

Cite as: [arXiv:1802.05734](https://arxiv.org/abs/1802.05734) [math.LO]

(or [arXiv:1802.05734v10](https://arxiv.org/abs/1802.05734v10) [math.LO] for this version)

Carl, Merlin and Rin, Benjamin and Schlicht, Philipp - Reachability for infinite time Turing machines with long tapes

[Back to the article management page](#)

Imcs:4444 - Logical Methods in Computer Science, April 24, 2020, Volume 16, Issue 2 - [https://doi.org/10.23638/LMCS-16\(2:2\)2020](https://doi.org/10.23638/LMCS-16(2:2)2020)

Reachability for infinite time Turing machines with long tapes

Authors: Carl, Merlin and Rin, Benjamin and Schlicht, Philipp

Infinite time Turing machine models with tape length α , denoted T_α , strengthen the machines of Hamkins and Kidder [HL00] with tape length ω . A new phenomenon is that for some countable ordinals α , some cells cannot be halting positions of T_α given trivial input. The main open question in [Rin14] asks about the size of the least such ordinal δ . We answer this by providing various characterizations. For instance, δ is the least ordinal with any of the following properties: (a) For some $\xi < \alpha$, there is a T_ξ -writable but not T_α -writable subset of ω . (b) There is a gap in the T_α -writable ordinals. (c) α is uncountable in L_{λ_α} . Here λ_α denotes the supremum of T_α -writable ordinals, i.e. those with a T_α -writable code of length α . We further use the above characterizations, and an analogue to Welch's submodel characterization of the ordinals λ , ζ and Σ , to show that δ is large in the sense that it is a closure point of the function $\alpha \mapsto \Sigma_\alpha$, where Σ_α denotes the supremum of the T_α -accidentally writable ordinals.

[https://doi.org/10.23638/LMCS-16\(2:2\)2020](https://doi.org/10.23638/LMCS-16(2:2)2020)

Source : [oai:arXiv.org:1802.05734](https://arxiv.org/abs/1802.05734)


Volume: Volume 16, Issue 2

Published on: April 24, 2020

Submitted on: April 16, 2018

Keywords: Mathematics - Logic, Computer Science - Logic in Computer Science

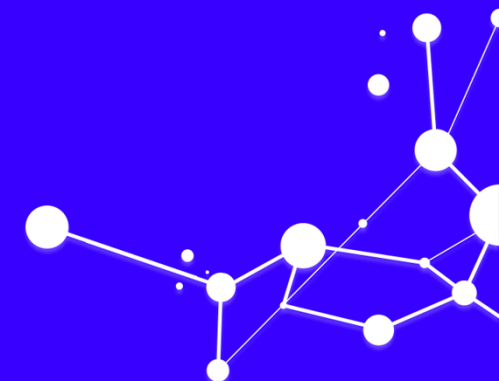
 Download this file

 Consult the article webpage

Article status

Current status: **Published**

Take away



Takeaway

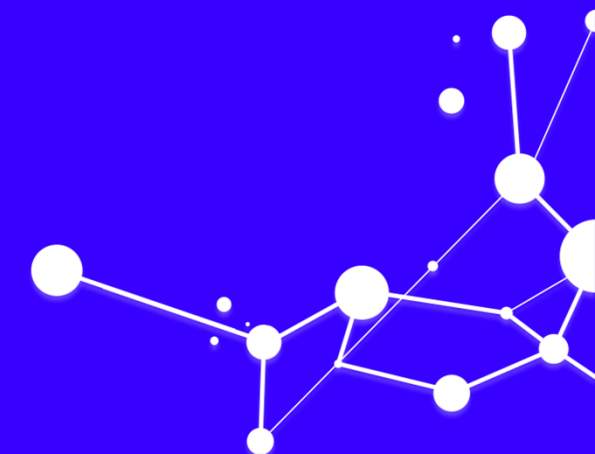
- **Easy** and **cost efficient** to operate high-quality OA journals
- **Free** to **read**, free to **submit**, free to **publish**
- Open to new journals or already existing journals
- For **all** scientific **fields**



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THANK YOU

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Eli Papadopoulou
ATHENA Research Center

argos

Plan and follow your data

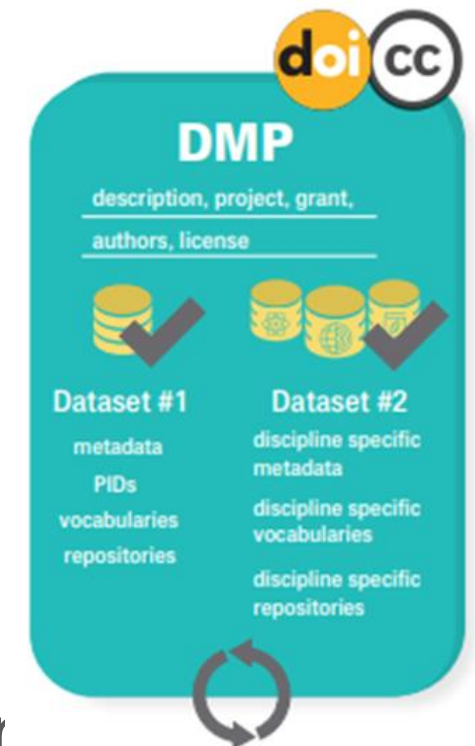
Overview of ARGOS

- ARGOS is an **open source, configurable and extensible** tool for **planning Research Data Management (RDM)** activities according to **Open Access & FAIR** data policies.
- **Website:** <https://argos.openaire.eu/>
~1000 users (growing)

- ✓ Online or ad-hoc installation
- ✓ Free to use for researchers
- ✓ Available in EOSC

Why to use ARGOS by whom

- Full DMP generation & publication process according to Open and FAIR principles.
- Machine actionable DMP (ma-DMP) outputs that normalize descriptions data:
 - Interdisciplinary & multi-disciplinary DMPs support
 - Wizard-based DMP authoring: multiple datasets may be contained in a single Plan
-> produced vs re-used vs sensitive vs discipline specific.
- Interlinked and connected with reference services and data sources (OpenAIRE, EOSC, etc).
- Standardization of practices and collaborations -> e.g. DMPs exposed in repositories with appropriate resource_type



Main users: researchers / research projects, funders, research communities and institutions

How to use Argos

The screenshot shows the Argos web application interface. At the top, a yellow banner indicates 'Editing Dataset' for 'Dataset a-4oct'. The Argos logo is in the top left, and a 'Start new DMP' button is in the top right. A language dropdown menu is open, showing 'EN' selected and a list of languages including English, Greek, Spanish, German, Turkish, Slovak, Serbian, and Portuguese. The left sidebar contains navigation options: Home, My DMPs, My Datasets, Public DMPs, Public Dataset Desc., DMP Templates, and Dataset Templates. The main content area features a modal box with the text: 'A DMP in Argos consists of key information about research, such as purpose, objectives and researchers involved, but also about documentation of research datasets, namely **Datasets**, that highlight the steps followed and the means used across data management activities.' Below this text is a yellow 'Add Dataset' button and a cartoon illustration of a person with blonde hair sitting at a laptop. The right-hand panel displays 'Personal Usage' statistics: 50 DMPs, 38 Datasets, 35 Grants, and 0 Related Organisations. At the bottom, a 'Latest Activity' section shows a progress bar for '1.3 What formats of data will the project generate/collect?' with 27 of 29 items completed (93%).

Coming in March!



- Admin interface

- Manage users.
- Create model templates.
- Configure APIs.
- Control RDA compliance.

New Dataset Template

✓ General Info 2 Dataset Template Pages & Content 3 Preview & Finalize

Guide steps

1. Main info   Page ID: e364feff-dj

+ Create new subpage

+ Create new page

1.1 Untitled field Field ID: c034f

Input ID: c034ff8f-6e9a-9647-a3f7-902ae2a75d2b

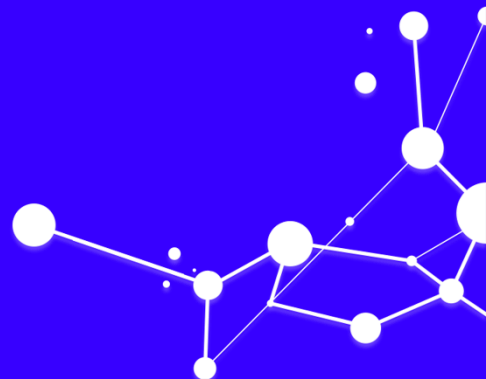
Boolean Decision RDA Common Standards

Preview

Yes No

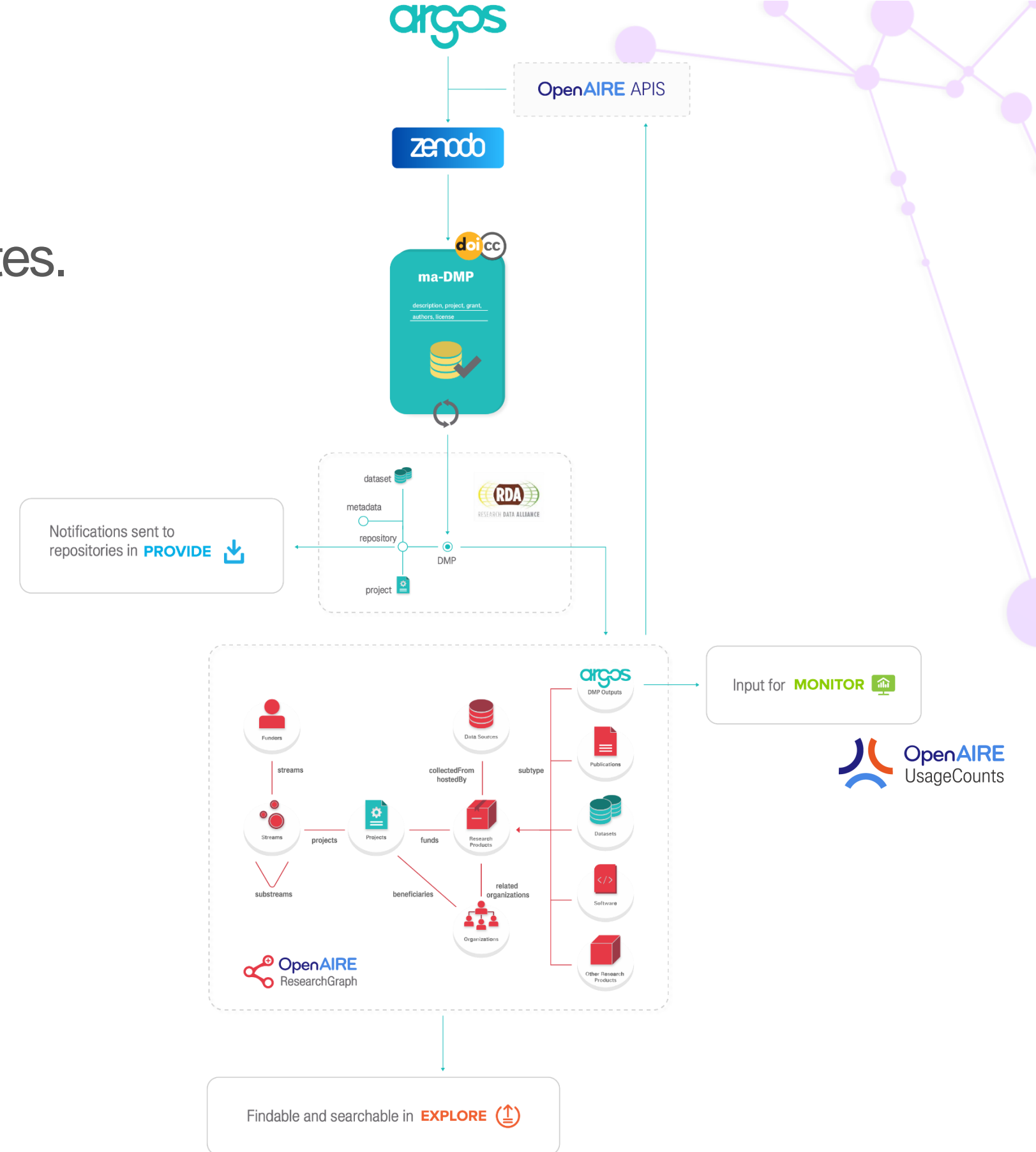
- Text Area
- Free Text
- Boolean Decision
- Radio Box
- Select
- Checkbox
- Date Picker
- Currency
- APIs
 - Registries
 - Services
 - Researchers
 - Organizations
 - External Datasets
 - Data Repositories
 - Other
- Argos Entities
 - Internal DMPs
 - Tags
 - Dataset Identifier
 - Validator

Positioning in EOSC & OpenAIRE Ecosystem

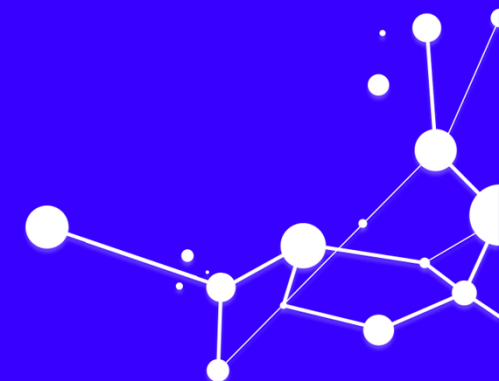


ARGOS interlinked

- Exploit OpenAIRE and EOSC APIs in templates.
- Publish in Zenodo.
- Notify repository managers for new datasets.
- Provide statistics.
 - Define indicators.
 - Add to dashboards.
- Create links between outputs and entities.
 - Data and projects.
- Add DMPs under the project's page.
- Exploit DMP entities as datasets.

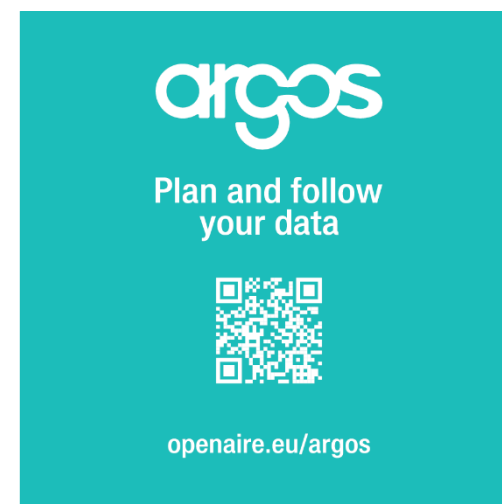


Take away



Take away

- ARGOS **prepares** all stakeholders for the next Horizon Europe DMPs requirements.
- ARGOS **simplifies** administrative processes and **connects** with University / Institutional workflows.
- ARGOS **enables** research communities to create templates tailored to domain standards and practices.

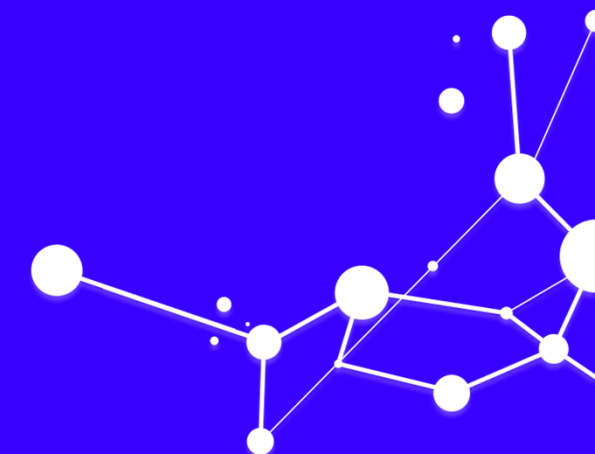




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THANK YOU

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Manolis Terrovitis
ATHENA Research Center



Data Anonymization Made Easy

Overview of Amnesia

- **Data anonymization**
 - Not pseudo-anonymization (According to **GDPR**)
 - Personal data become statistical data
- **Stand alone application**
 - Available as web service for training/demo purposes
 - Anonymization engine available through ReST API
- **~34K unique visitors in 20020**
- **4750 uses of the online service**

Why to use Amnesia by Who

- **Amnesia supports the anonymization of personal data**
 - Anonymization frees the data from GDPR restrictions
 - It is an irreversible transformation of the data
 - It preserves useful information but removes identifying data
- **Is an added value service for EOSC users, researchers and data owners**
- **There are no established tools in this area. Amnesia is one of the few available tools with unique features**
- **It is targeted to data owners who want to share their data**
 - Researchers will benefit from an environment where information contained in personal data will be shared

How to use Amnesia

- **Visit:** <https://amnesia.openaire.eu>
 - **On-line** version for **training** and **demo**
 - **Standalone** version
 - GUI
 - ResST API
 - Command line



How to use Amnesia

Amnesia Dashboard
version:1.2.3 beta

Choose Dataset

Upload

→ **Drop files** to upload
(or click)

- Anonymization Wizard
- Restart
- Source
- Anonymized
- Hierarchy
- Algorithms
- Solution Graph
- Results

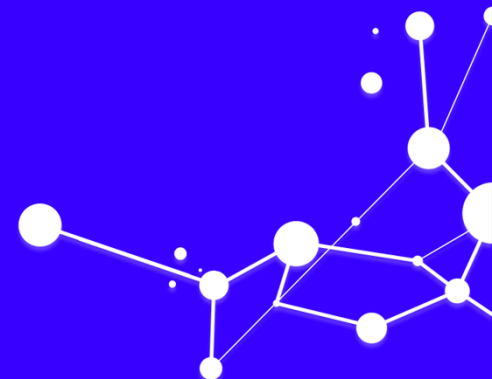
How to use Amnesia

The screenshot displays the Amnesia web application interface. On the left is a dark sidebar with the Amnesia logo and navigation options: Anonymization Wizard, Restart, Source, Anonymized, Hierarchy (selected), Manage, Load from Local, Auto Generate, Algorithms, Solution Graph, Results, and About. The main content area is titled "Hierarchy" and shows "version:1.2.3 beta". Below the version is a descriptive text: "Load or create a new generalization hierarchy. A generalization hierarchy will define how values are mapped to more generalized concepts. A generalization hierarchy can be defined independently of any dataset." There are four buttons: "Autogenerate Hierarchy", "Remove Hierarchy", "Load New Hierarchy", and "Save Hierarchy". A dropdown menu for "Hierarchy Name" is set to "icd9_icd10". The central part of the interface shows a hierarchical diagram with a root node "****" connected to "ICD9" and "ICD10". "ICD10" is further connected to a row of nodes: "ICD10:P", "ICD10:O", "ICD10:N", "ICD10:M", "ICD10:L", "ICD10:K", "ICD10:J", and "ICD10:I". Green circular icons with arrows are placed around the bottom row of nodes. At the bottom right of the main area is a "Proceed to Algorithms" button.

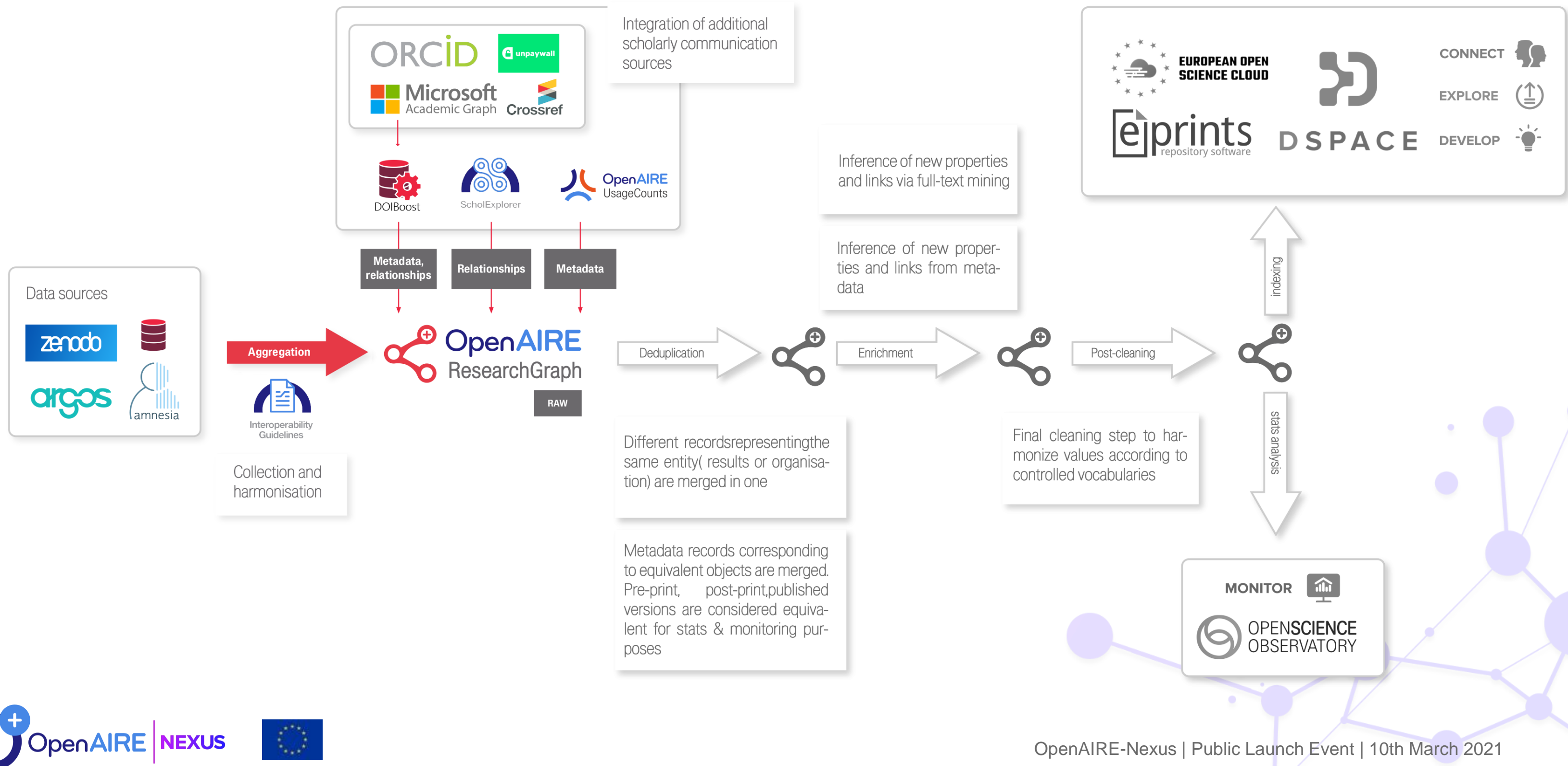
How to use Amnesia

The screenshot displays the Amnesia application interface. On the left is a dark sidebar with the Amnesia logo and a menu containing: Anonymization Wizard, Restart, Source, Anonymized, Hierarchy, Algorithms, Solution Graph (highlighted), Results, and About. The main area is titled "Solutions Graph" with version "1.2.3 beta". Below the title is a descriptive paragraph: "Explore the solution space. Blue nodes indicate safe solutions and red nodes unsafe. Hover a node to view the generalizations levels of the attributes. Select a node to view a sample of the anonymized dataset and to explore its statistical properties. Unsafe solutions can be transformed to safe by using suppression. Double-click a node to apply a solution." The central part of the interface shows a graph with nodes labeled with pairs like [6, 0], [5, 1], [4, 2], [5, 0], [4, 1], [3, 2], [4, 0], [3, 1], [3, 0], [2, 1], [1, 2], [2, 0], [1, 1], and [0, 2]. Blue nodes are at the top, and red nodes are at the bottom. A tooltip is visible over the [3, 1] node, stating: "Date of Birth" generalized to level 3, "Marital Status" generalized to level 1. At the bottom left of the main area, it says "© 2016. All Rights Reserved."

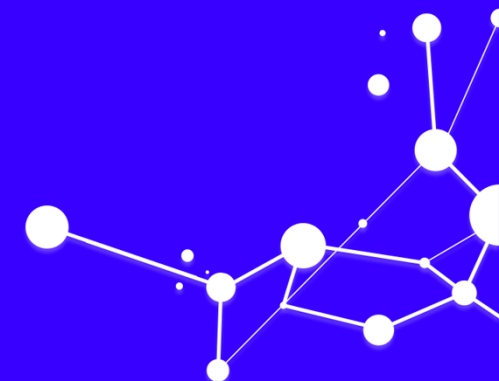
Positioning in EOSC & OpenAIRE Ecosystem



Amnesia's role



Take away



Takeaway

- **Amnesia performs data anonymization**
 - Not just pseudo-anonymization
 - Anonymized data are no longer personal data
- **Amnesia is a free standalone tool**
- **Amnesia is one of the very few tools that offer data anonymization**
 - Unique techniques for high dimensional data



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THANK YOU

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