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The EDAM Framework and Control Room

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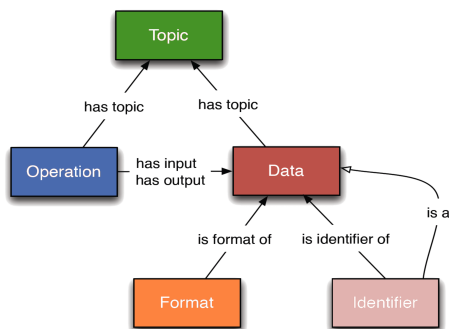
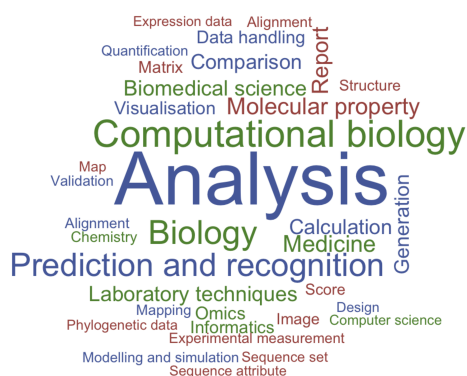
The EDAM Framework and Control Room

Facing the data deluge, one concept at a time...

Claire Rioualen¹, Alban Gaignard², Matúš Kalaš³, Hervé Ménager^{1,4}, and the EDAM community

What is EDAM?

EDAM is an ontology about data management & analysis in life sciences. Ontologies define **standard terminologies** and **relationships** between concepts. Those concepts are used to **annotate resources**: they are semantic metadata. Standard annotations increase the **findability** & **interoperability** of digital resources.



Take-home

- EDAM is an ontology about data analysis
- Increases findability & interoperability
- Developed in a participatory manner
- Extends beyond life sciences



<https://github.com/edamontology>

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Community-based development

- EDAM Geo: **earth & environment** sciences
- Biolumaging: image processing and **deep learning** concepts
- Systems biology: annotation of **training materials**



Bioconductor annotation of packages + bio.tools catalogue [coming soon]
FAIRtracks genomic concepts for FAIR genomic tracks [coming soon]

Continuous integration

- **Quality control** validation with Caseologue
- Continuous integration using GitHub Actions

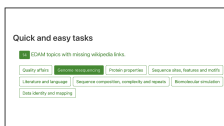
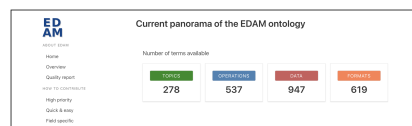


EDAM control room

- **User-friendly** web application
- Overview of the contents in the ontology
- Guides users towards **tailored curation tasks**

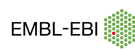
Long-term goals

- Broaden community
- Credit contributions
- Platform for hackathon events
- Frequency of new releases



Annotating resources

- Numerous content providers use EDAM annotations
- Those resources are interoperable

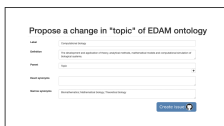
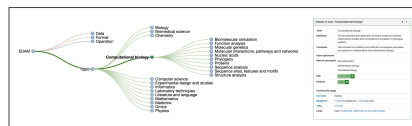


Mapping concepts

- Concepts can be visualized with **EDAM popovers** navigator extension
- **EDAM map** allows **text mining** concepts in scientific articles or web resources

Navigating the ontology

- The **EDAM browser** allows to **navigate current and past versions**
- Suggestions for terms or attributes can be made using GitHub issues



References

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