

The bioscientific data analysis ontology

(update 2021)

Melissa Black^{1, 7}, Ankita Priya², Anne Machinda³, Uttam Singh Khanduja⁴, Drashti Patoliya⁵, Rashika Rathi⁶, Tawah Peggy Che Nico⁷, Gloria Umutesi⁸, Anita Op⁹, Precious Chieke⁹, ellschi¹⁰, Steve Laurie¹¹, Mads Kierkegaard¹², Veit Schwämmle¹², Ivan Kuzmin¹³, Chris Hunter¹⁴, Jonathan Karr¹⁵, Jon Ison¹⁶, Alban Gaignard¹⁷, Bryan Brancotte¹⁸, Hervé Ménager¹⁸, Matúš Kalaš¹⁹

¹Outreachy intern (EDAM), São Paulo, Brazil; moving to Southern California, U.S.; ²Birla Institute of Technology, Mesra, India; ³independent contributor, Bamenda, Cameroon; ⁴Medicaps University, Indore, India; ⁵independent contributor, Surat, India; ⁶Indian Institute of Technology, Mandi, India; ⁷University of Buea, Cameroon; ⁸independent contributor, Kigali, Rwanda; ⁹independent contributor, Nigeria; ¹⁰independent contributor, Germany; ¹¹Centre Nacional d'Anàlisi Genòmica, Barcelona, Spain; 12 University of Southern Denmark, Ødense, Denmark; 14 GigaScience GigaDB, Hong Kong, China; 15 Icahn School of Medicine at Mount Sinai, New York City, **U.S.**; ¹⁶Institut Français de Bioinformatique, **France** (at the time of contribution); ¹⁷University of Nantes, **France**; ¹⁸Institut Pasteur, Paris, **France**; ¹⁹University of Bergen, **Norway**.

All logoi are with links, clickable

An interactive poster is available at https://edamontology.org

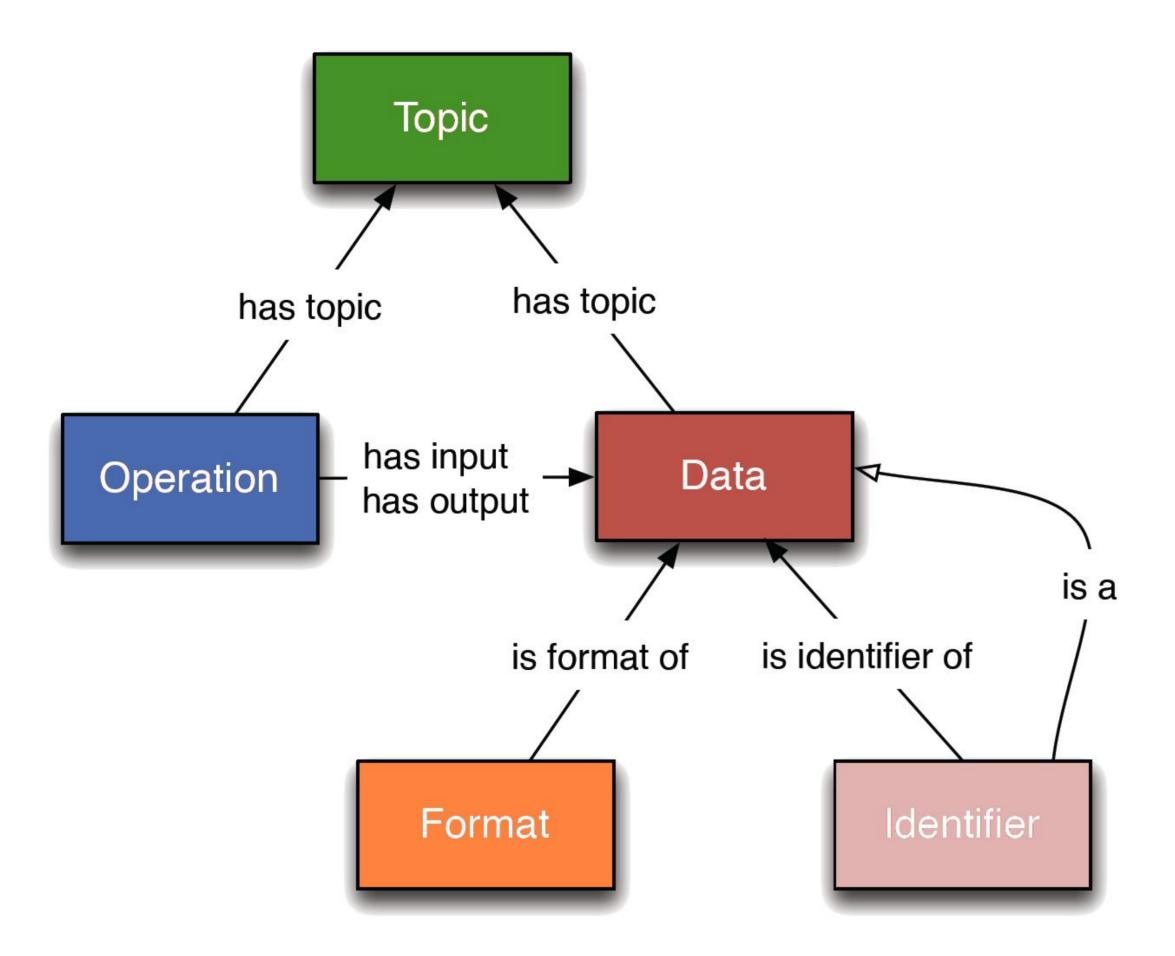


Browse interactively at

What is EDAM?

EDAM is an ontology of data analysis and data management in life sciences.

The structure of EDAM is relatively simple, divided into 4 main sections: *Topic, Operation, Data,* and *Format*. (*Identifier* is a special kind of *Data*.)



Why EDAM?

EDAM is used across numerous resources, for example:





















Thanks to the annotations with EDAM, computational tools, workflows, data, and educational materials are easier to find, compare, choose, and integrate.

In addition, EDAM contributes to open science by providing concepts for annotation of processed data, thus making the data more understandable, findable, and comparable.

Browse EDAM at BioPortal

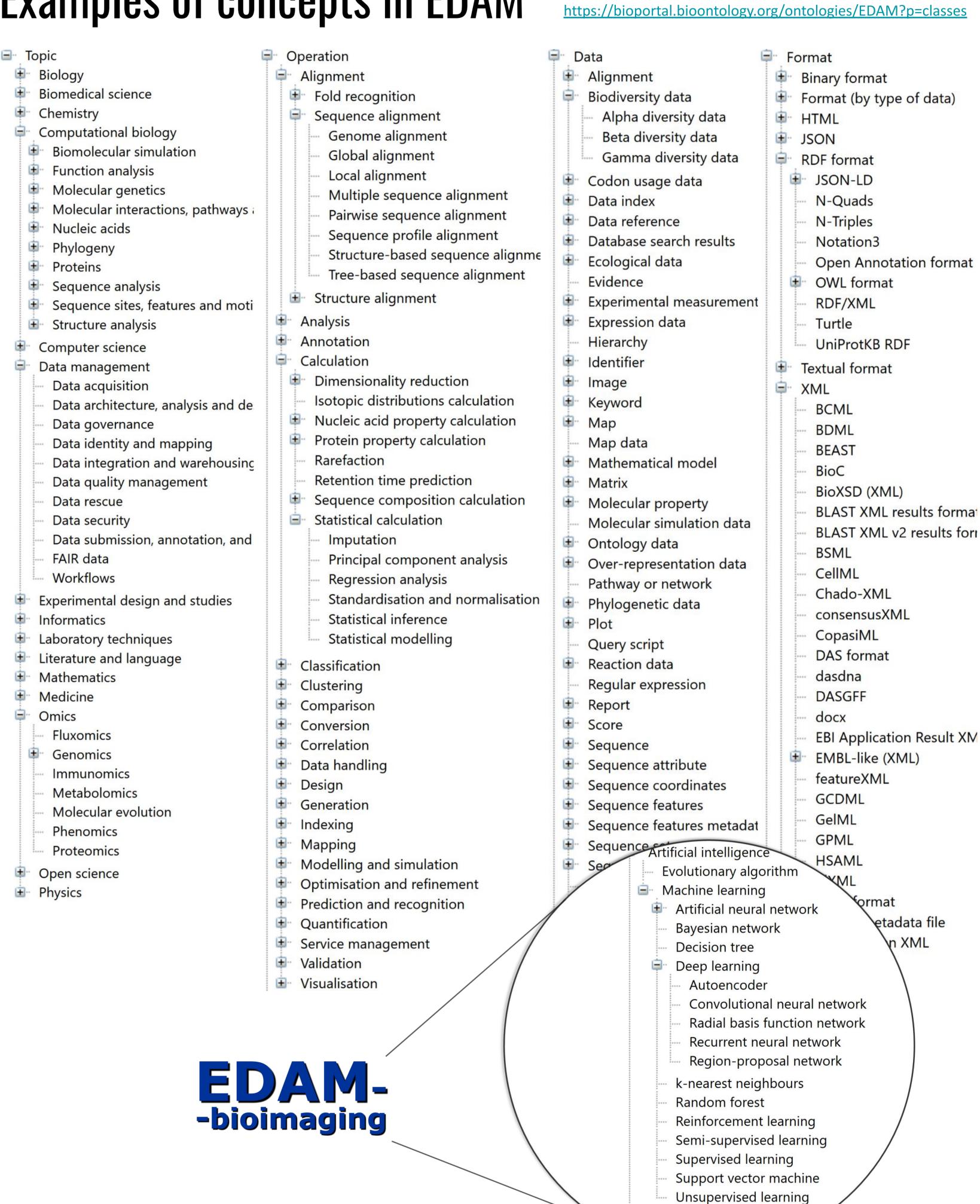






Download EDAM in various formats: <u>OWL</u>, <u>TSV</u>, <u>CSV</u>

Examples of concepts in EDAM



News 2021

- Easier to contribute
- Improved automated validation (CI)
- Main focus on inclusion and engagement with communities of scientific experts, software engineers, and volunteers
- Therefore new contributors and new collaborations. And welcoming more!

EDAM tools

EDAM Browser is an ontology browser with special user-oriented features, as aggregated search across various resources (e.g. <u>Bio.tools</u>, <u>TeSS</u>), and **suggesting changes** to EDAM.

Bioimage informatics

edamontology.github.io/edam-browser

EDAM Popovers is a Firefox add-on for showing details of EDAM concepts selected in any website.

EDAMmap is a tool for text mining EDAM concepts from articles.

biit.cs.ut.ee/edammap

EDAM is an open source community



<u>twitter.com/edamontology</u>











