ELIXIR CZ Annual Conference 2017

ELIXIR Interoperability Platform @ ELIXIR CZ Node

Robert Pergl, Marek Suchánek

15th November 2017

FACULTY
OF INFORMATION
TECHNOLOGY
CTU IN PRAGUE

Data Stewardship and Data Management

- FAIR Initiative participation in ELIXIR CZ & Globally

  https://www.elixir-europe.org/news/position-paper-fair-data-management

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ELIXIR publishes position paper on FAIR Data Management in life sciences

ELIXIR has stated today how its infrastructure will help researchers to make published life-science data FAIR (Findable, Accessible, Interoperable and Reusable). This statement also voices ELIXIR's commitment to enabling the availability of FAIR data within the framework of the European Open Science Cloud (EOSC), an initiative of the European Commission and Member States to connect big data across Europe.

In supporting the EOSC Declaration made on 10 July 2017, ELIXIR has published a set of guiding principles on FAIR Data Management:

- Open sharing of research data is a core principle for publicly-funded research and ELIXIR encourages all funders to adopt Open Data mandates.
- Data Management is crucial part of good scientific practice and research excellence.
- Whenever possible, biological research data should be submitted to the recommended community deposition databases.
- All data submitted to Open Data archives must be annotated in accordance with community-defined standards.
- ELIXIR Nodes are the national implementation of a harmonised FAIR Data Management programme for the life sciences.
- FAIR data management requires professional skills and adequate resources.
- Good research data management requires appropriate funding for data infrastructures.

Read ELIXIR's position paper to see the guiding principles in full.

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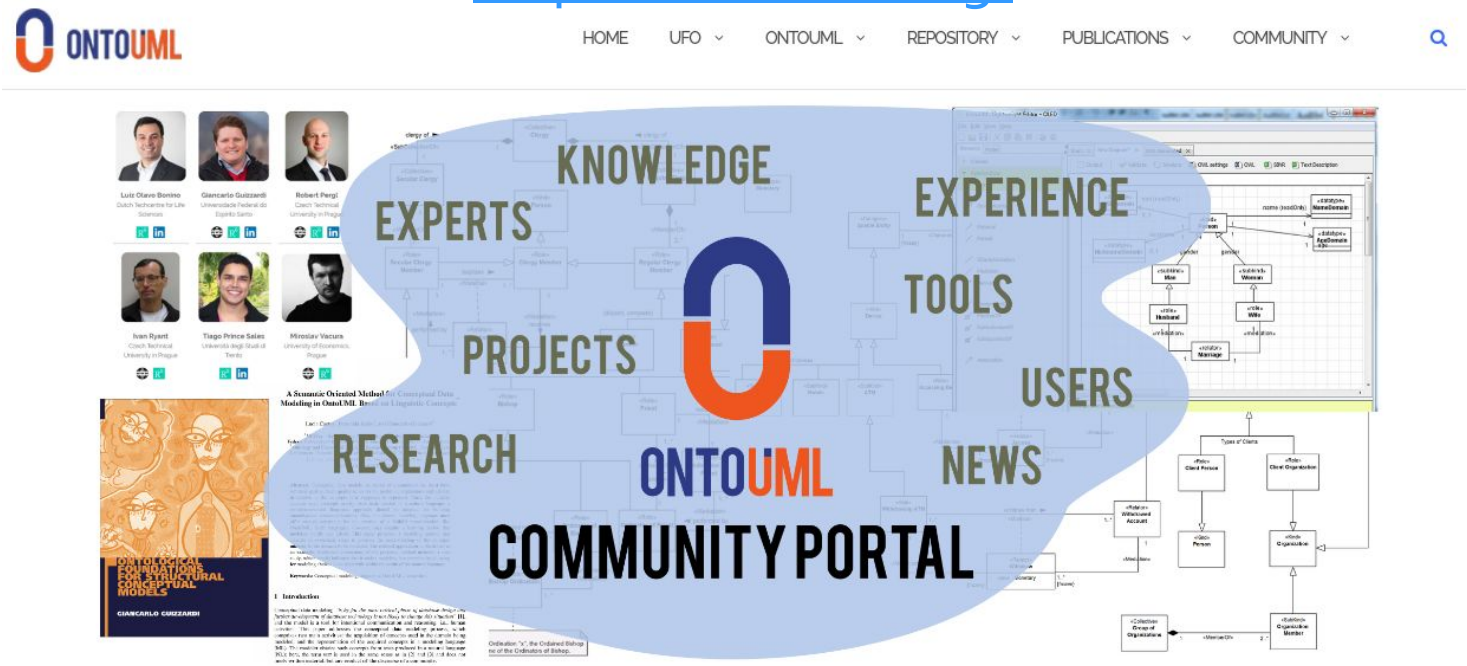
Foundational Ontologies

- A powerful interoperability tool for life sciences
- Reasoning about data semantics, verification and validation

https://ontouml.org/



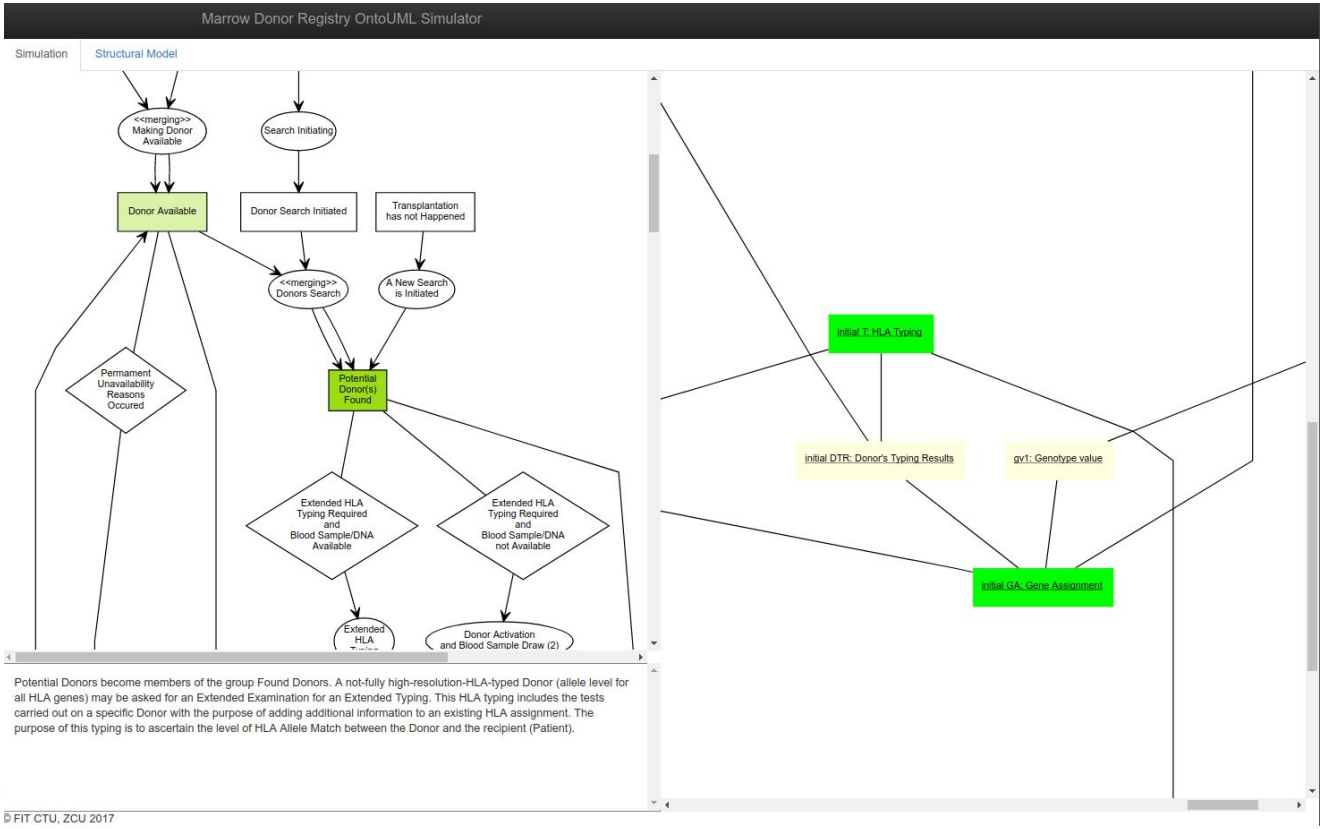
OntoUML community portal

Foundational Ontologies

Flashtalk:

Pergl R., Houdová L., Fetter M

Ontological Analysis of Marrow Donor Registry



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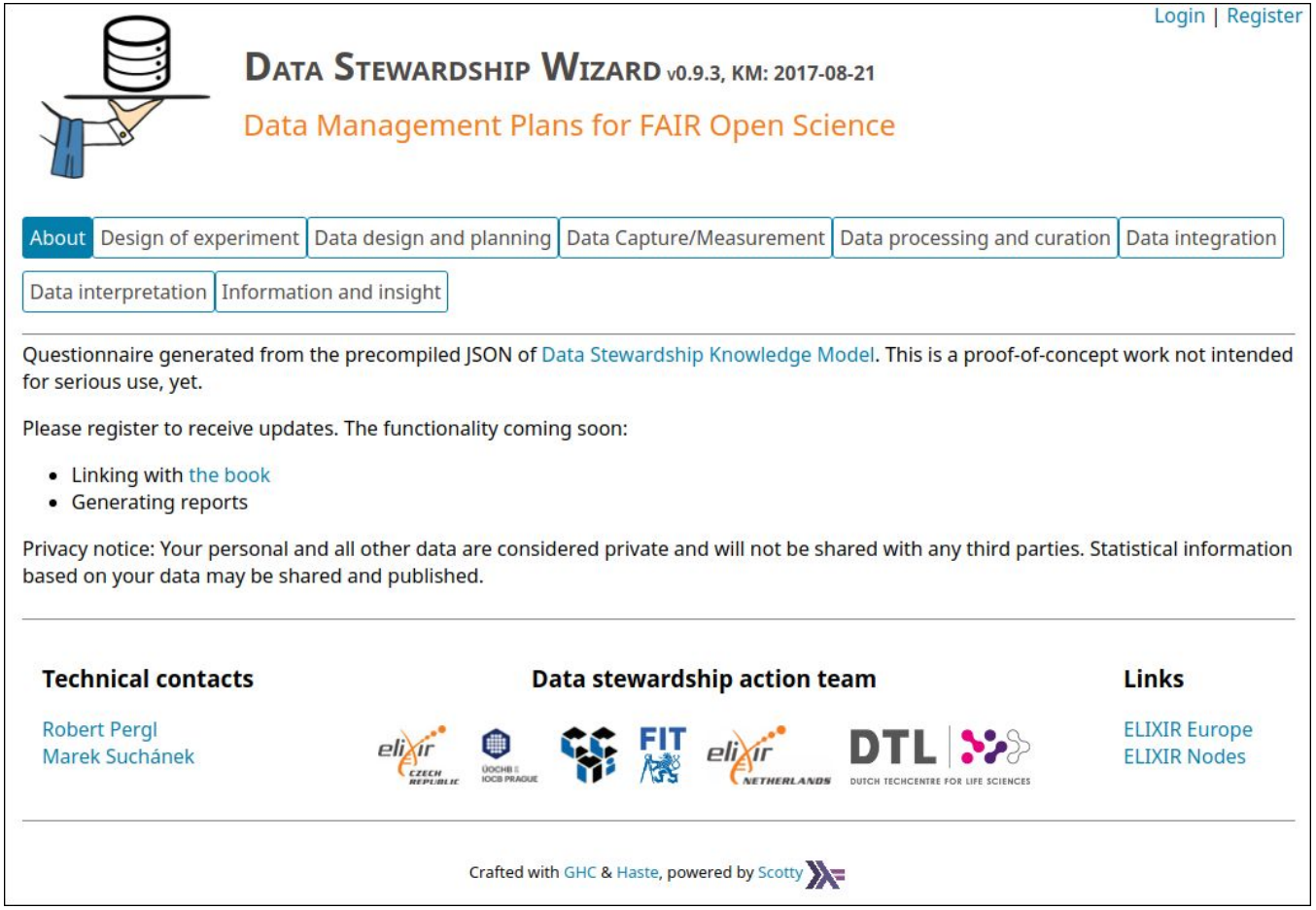
Software Tools Supporting Interoperability

https://dmp.fairdata.solutions/



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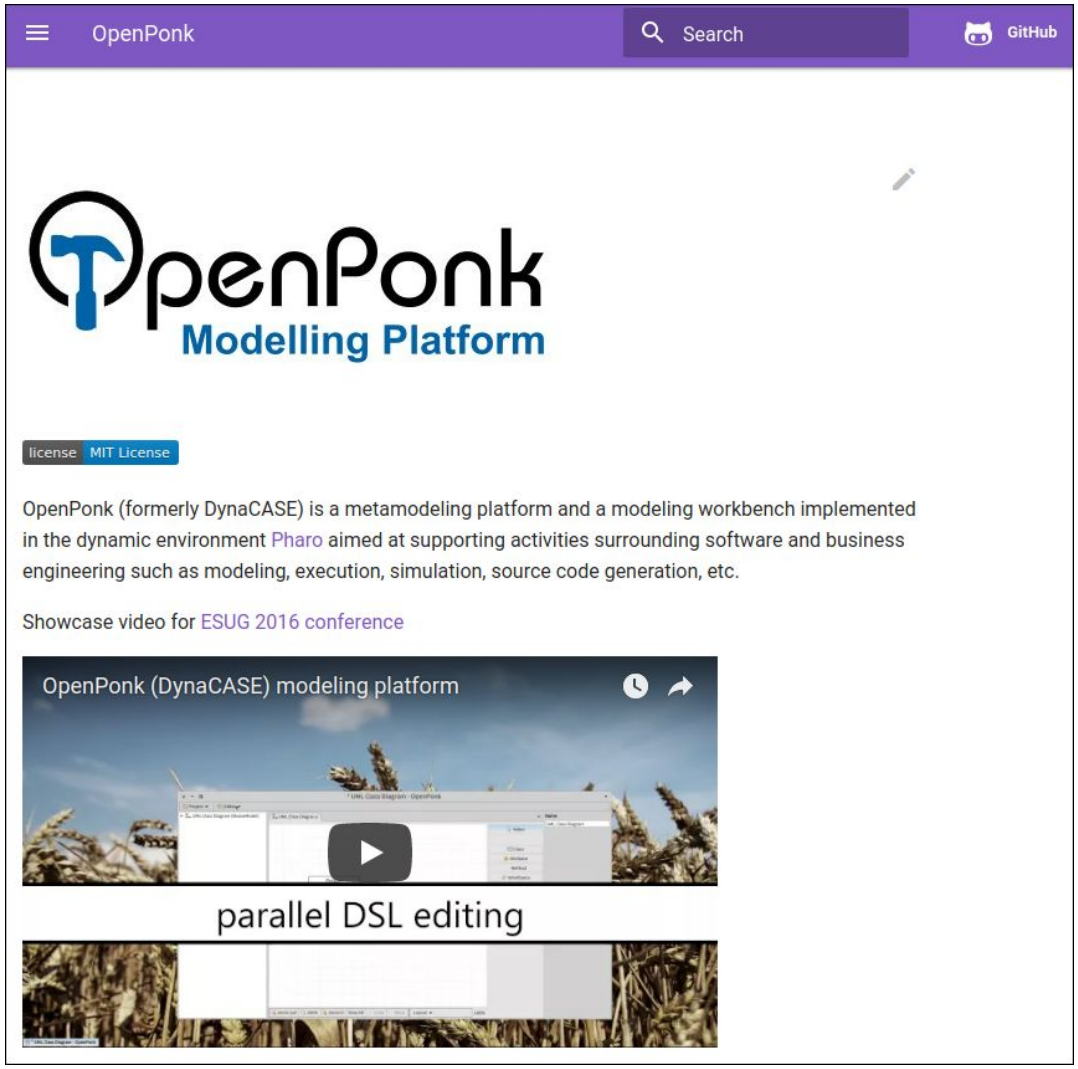
Software Tools Supporting Interoperability

http://openponk.org



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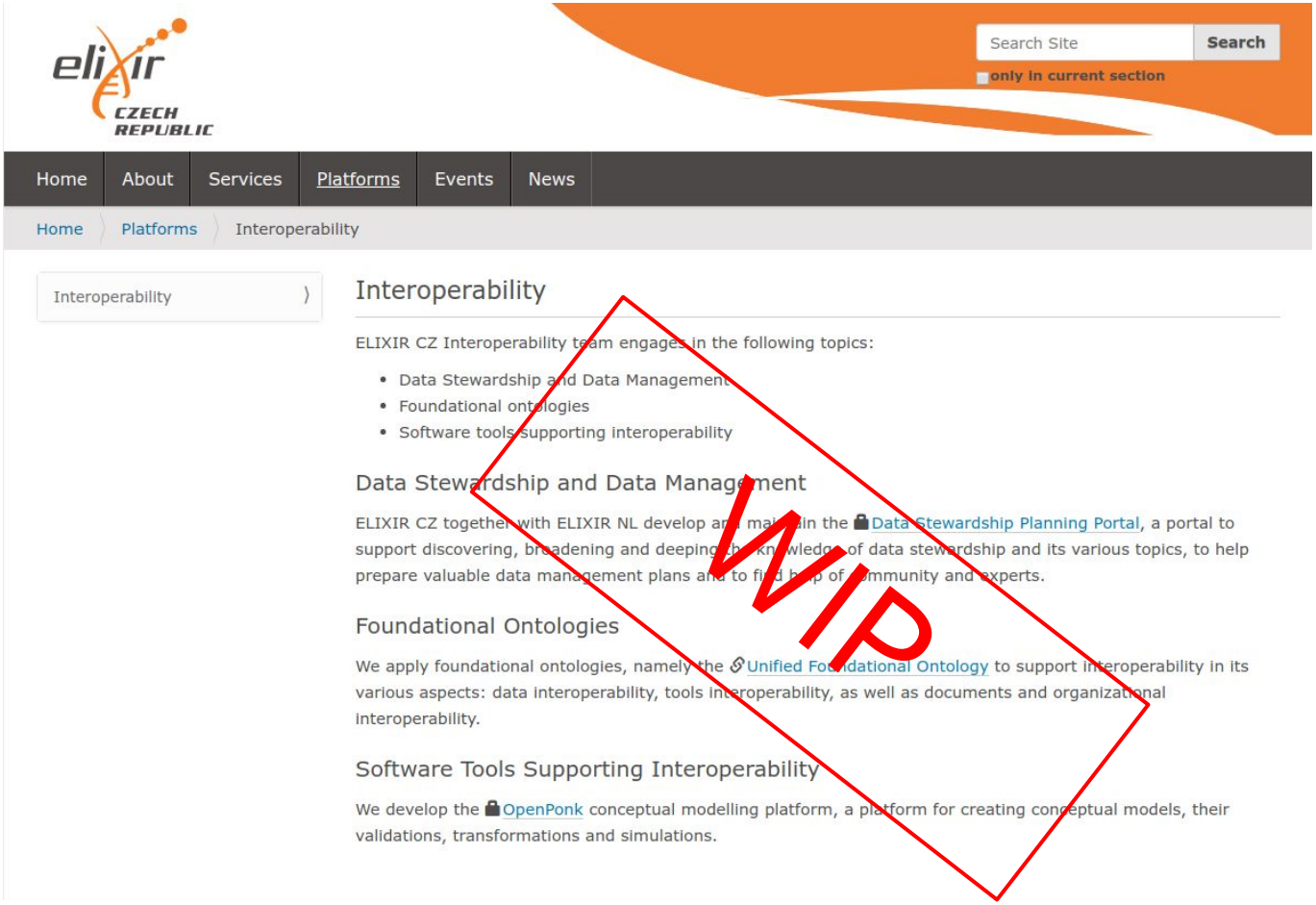
Further info

https://www.elixir-czech.cz/platforms/interoperability



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DSP: Vision and Knowledge Model

- What do I need to know in order to create a good Data Stewardship Plan?
- How to make my data FAIR?
- Make it simple but still exhaustive (not for users!)
  - Smart behaviour
  - Interactive branches
  - Options, examples, advices, experts
- Extensible, evolvable and FAIR knowledge model
  - Core with generic questions and knowledge
  - Localizations for specific fields, geopolitics, …

DSP: Wizard

- Current "client" for browsing the knowledge model
- Haskell-based web application
- Interactive guiding through the questions
- Register & login functionality
- Save & load answers - manage multiple plans

https://dmp.fairdata.solutions

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DSP: Future work

- Implementation Study under the Training Platform (Jan 2018, 18 months)
  - Functionality development
  - Content development
  - Trainings
- Theses @ FIT CTU - exploring various approaches
- Currently developing:
  - distributed modular architecture
  - simple-to-use knowledge model editor
- Future (depends on the community needs):
  - certifications, publishing plans, etc.

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DSP: Integrations

- Linking and integration with other ELIXIR or 3rd party services and resources
- The Book: Data Stewardship for Open Science: Implementing FAIR Principles (Barend Mons)
- Open Science Framework (WIP)
- Other ELIXIR projects (future):
  - ELIXIR eLearning platform (ELIXIR-SI)
  - Virtual Coffee Room (ELIXIR-ES)
  - …

DSP is Yours!

- Play around with Data Stewardship Wizard
- Create your plan base on your (or imaginary) case
- Please give us feedback!

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- Marek Suchánek: marek.suchanek@fit.cvut.cz

- https://github.com/DataStewardshipPortal
- https://dmp.fairdata.solutions

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