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The OpenScientoMeter: A serious game to engage with the diversity of open science practices and topics

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Abstract

The scope of open science and the diversity of topics and practices that it entails can be challenging and overwhelming, especially for early career researchers or other stakeholders that are not well-versed in open science. The [OpenScientoMeter](#) is a serious game that is designed to present an overview of this diversity and to help researchers and other stakeholders better navigate and understand the various themes, practices, and issues underlying open science. This poster presents how this game works and explains how its logic and mechanisms help articulate these objectives.

Practically speaking, the game includes five challenges, each of which simultaneously presents players with four different prompts that can address open science tools, resources, or topics in the form of questions. The answers to these questions will always be a numerical value (a date, a proportion, a number, etc.). Players are required to examine these prompts and find the ones whose answers correspond to the highest and lowest values of a challenge.

The educational advantages of this gameplay and its mechanisms are numerous. First, it introduces a variety of open science ideas, tools, and resources at a glance to the participants (e.g. the DOAJ, Article Processing Charges, the FAIR principles, DORA, or preprints). If necessary, all prompts contain contextual information describing the issue or resource under review. Second, it promotes active learning by requiring players to critically compare and evaluate practices and tools or how they are implemented (e.g. author fee-based open access publishing, data repositories, creative commons licenses, linguistic diversity among OA journals). Moreover, comparing the realities behind particular numbers, such as the proportion of author fee-based vs. non author fee-based OA journals, can help debunk common myths or help participants to reconsider some of their preconceived notions regarding specific aspects of open science. Finally, the OpenScientoMeter can be played in a solo or collaborative mode, the latter of which encourages participants to exchange ideas and best practices.

Poster

The OpenScientoMeter

A serious game to engage with the diversity of Open Science practices and topics

Background



The scope of Open Science and the diversity of topics and practices that it entails can be challenging and overwhelming for:

- researchers who are not familiar or well-versed in Open Science practices, especially Phd students
- library and research support staff who have to help researchers how to navigate these topics and practices

Without proper and evidence-based teaching material, advocacy for Open Science may also sometimes be perceived as activism



Brainstorming a solution



Design an evidence-based and ready-made learning platform in the form of a serious game which :

- can be played individually (self-learning) or used as a teaching resource in workshops (collaborative game session)
- provides an overview of the diversity of topics and challenges that Open Science entails (Open Access, Open Data, Open Education, APCs, preprints, bibliodiversity etc.)
- provides go-to resources and documented research addressing aspects of Open Science and its infrastructures
- puts into perspective the state of particular Open Science features and their possible implementation

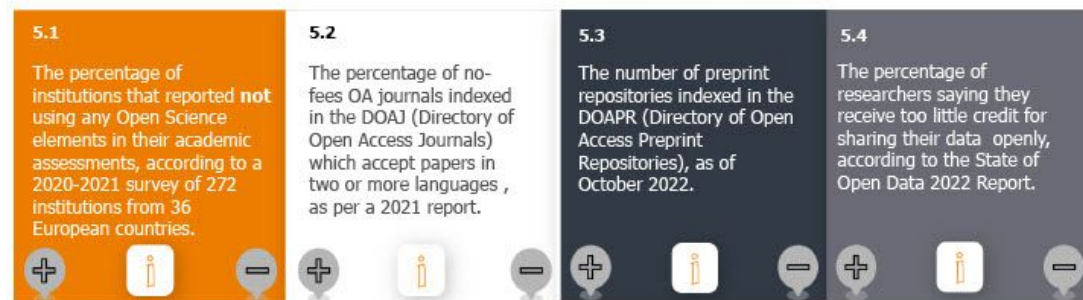


Figure 1: An example of challenge of The OpenScientoMeter

The game & how it works



The game walks you through 5 challenges, each of which simultaneously presents players with four different prompts that can address Open Science tools, resources, or topics (see Fig.1 above).

Each prompt always refers to a numerical value (a date, a %, etc.).

The objectives are to:

- find the lowest and highest numbers for every challenge in clicking on the + and - signs
- complete the 5 challenges as fast as possible

Contextual help is provided in the information tiles if needed. Players are also provided with two clues per challenge.

Feedback slides with answers and extra information are provided after every challenge.

Educational advantages



The OpenScientoMeter:

- introduces a variety of Open Science ideas, tools, and resources to players at a glance (e.g.: DOAJ, APCs, the FAIR principles, preprints, etc.)
- promotes active learning by requiring players to critically compare and evaluate practices and tools or how they are implemented (e.g. fee-based OA, data repositories, creative commons licenses, linguistic diversity among OA journals)
- invites players to exchange views and ideas on particular aspects of Open Science (in collaborative mode)
- can help debunk common myths about Open Science and invite players to reconsider some of their preconceived notions regarding specific aspects of OpenScience
- can be re-used (CC-BY)

Christophe Dony

University of Liège,
ULiège Library

Are you game ?

Scan the QR code and test your knowledge



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315 KB

Author biography

[Christophe Dony](#) (University of Liège) works as a research and subject librarian at the University of Liège, where he is involved in a variety of open science projects and initiatives. His main research interests include the intertwining of open science, bibliodiversity, multilingualism, and research evaluation. He has notably translated the 20th Anniversary Recommendations of the Budapest Open Access Initiative (BOAI20) into French and co-created [Compass to Publish](#), a free online tool to help researchers identify possible predatory journals. Before joining the University of Liège Library, he completed a PhD in comics studies. Every now and then, he uses comics as scholarship to discuss some of his research interests revolving around open science and scholarly communications.