

The April 2025 Scholia hackathon

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Abstract

This is the third weekend I am working on Scholia, the first two part of the April 2025 hackathon. It follows the hackathons last year October and November hackathons. There is some urgency for this unpaid work, because Wikidata is splitting the RDF into two SPARQL endpoints (see this [The Signpost](#) and this post by Finn). This split has happened, but there is a legacy server for tools that have not been upgraded.

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This is the third weekend I am working on Scholia, the first two part of the [April 2025 hackathon](#). It follows the hackathons last year [October](#) and [November](#) hackathons. There is some urgency for this unpaid work, because Wikidata is splitting the RDF into two SPARQL endpoints (see [this The Signpost](#) and [this post by Finn](#)). This split has happened, but there is a *legacy* server for tools that have not been upgraded.

Scholia has not been upgraded. It has more then 350 SPARQL queries, and each one has to be tested separately and updating every query is not trivial. Together with Daniel, Finn, and others, I have hacked up patches last year to:

- [configure Scholia for the endpoint to use](#)
- [create pages for many Scholia SPARQL queries](#)

This month I continued working on the second, and I:

- [added titles for chemistry aspect panels](#)
- [use the legacy SPARQL endpoint](#)

That second also indicated that the legacy server has more limited resources and users will more quickly run into error messages that too many queries are run in parallel. Now, users can rerun the query, but then the results table contains the previous error message. Second, you want to run the queries for one aspect to not run all at the same time, but have Scholia send of the query when the panel becomes visible (and scrolling a page takes a bit of time).

For these issues, I wrote these two patches (yet to be approven and merged):

- [delete the previous error message](#)
- [lazy load the table and iframe panels](#)

Now, the iframes already had some aspects of lazy loading, but it turned out that it was mostly lazy display, and the queries were still run as soon as possible. This last patch challenged my JavaScript skills and I learned **Intersection Observer API**, a browser technology that allows the browser to see what part of the webpage you are looking at right now. Yeah, I can easily see how that does user profiling, but in this case it is just used to fire of the SPARQL query when it become relevant. It uses an additional callback function, so I had to make sure Jekyll/Liquid creates custom callback functions for each panel. Actually, I intended to show the code here, but I am not entirely sure how to escape the code so that Jekyll does not try to run the instructions. For now, you have to [check the PR](#).

Scholia Chemistry paper

The other things I have been doing, is finally finish up the Scholia Chemistry paper. That actually depended on the maturing of various tools, me figuring out how to characterize the actual amount of content contributed to Wikidata and how to make that transparent, and more recently, the above to be able to convince readers Scholia will not die with the graph split. With

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the above pages, we have, I think, sufficient guarantee it will be around for another few years, at least.

This paper, which I hope to finish the final draft today, applying some good feedback from co-author last weekend, is the final bit of work done on the Alfred P. Sloan Foundation grant.

We intend to put the paper up as preprint soon and then submit it to a Diamond Open Access journal, one that supports CiTO citation intent annotation.