

I recently built a web application called the Open Journal Matcher (<https://ojm.ocert.at>), which is a recommender tool for academics looking to find a suitable scholarly journal for their work. The Open Journal Matcher allows users to paste in a draft abstract, which it then compares with the abstracts of over 5600 English-language journals from the Directory of Open Access Journals. The application then returns the top five suggested matches, which are meant to be both relevant and serendipitous. This can be very useful to anyone trying to find an appropriate journal for their work.

There are other journal matching services available, some from big publishers such as Springer and Elsevier, and some that focus on specific fields, such as JANE. Yet to my knowledge, the OJM is the only matcher that is both fully interdisciplinary (covering the full range of disciplines found in the DOAJ) and fully open source. The code for the matcher application, the code for the matching algorithm (spaCy), and the content of the journals, is all openly licensed.

Upon its release in June 2020, the OJM received a very favorable reception from the open science and scholarly communications communities. It has been retweeted hundreds of times, and also shared widely by many people on platforms such as Slack, Facebook, Reddit, email lists, library websites, and academic blogs. This has reaffirmed the need for such a tool, and has led me to focus on further development of this project since its release.

This poster will describe insights gleaned while building this tool. I'll describe the challenges of gathering journal data from the Directory of Open Access Journals' API at scale; the numerous lessons learned while using natural language processing tools to calculate the similarity of texts; and the difficulties processing large amounts of data very quickly for the web, using Google Cloud Platform and asynchronous Python programming.

The project will be of foremost interest to authors who are looking for a journal to publish their scholarly work. It will also be relevant to technologists who are interested in building open source tools for their communities. It may be helpful to professionals, such as librarians, who promote scholarly communications, and who may find this tool to be a useful addition to their toolkit. Lastly, it will serve as an interesting example of the novel services we can provide to our communities when we apply open digital technologies in support of our scholarship.