

# 2nd contribution to "Systematic review generator"

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# Getting References

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# Getting DOI from PMID

- Since PubMed did not return DOI values for all the rows of the dataframe, I had to take the DOI values from OpenAlex though PMID
- Those newly acquired DOI values I used with CrossRef to get missing citation data
- This was done because CrossRef only takes DOI values in it's API (with OpenAlex, I got everything with PMID, no problem ...)

# Getting OpenAlex citations

- The only way to get citations from OpenAlex is by making multiple requests, as no actual full citations (title/authors) are referenced, just DOI links in an array ...
- The only way to get those values fast (not in 80 hours, like with the first method attempted) is to ask OpenAlex with as many as 100 citations at once

# Getting OpenAlex citations

- **DO THIS:** For now I limited the number of citations to 100, but I could make more than one call for all the citations for papers that have more than 100 citations
- **DO THIS:** Get permission from SCOPUS to go through their references ... it's free, but I have to ask their team through an email ...
- **DO THIS:** Make Git Repo for project ...
- **DO THIS:** Try PMC APIs
- **DONE:** Merge back to initial CSVs ...

# Getting OpenAlex citations

- I got CrossRef and OpenAlex data to collect references for **14698** papers. (PubMed gave citations for **6252** papers, and now I have citations for **20950** references)
- The remaining 5848 papers that have no references might never have, as most only have a PMID and no DOI (so, I cannot use CrossRef to get anything for them). I have also tried already to get DOIs/citations for them from OpenAlex using their PMID, but the remaining ones did NOT have either
- I have to try SCOPUS still, but first I have to send them an email asking for approval to use their citation API. Yet, most likely I won't get much from there either ...

# Getting OpenAlex citations

- Besides SCOPUS, I don't know where else to search ... I tried PLOS too, it doesn't have much
- **OpenAlex**                      **260 million**
- **Crossref**                      **150 million**
- **SCOPUS**                      **90 million**
- **ScienceDirec**              **21 million**
- **IEEE XPlore**              **6 million**
- Where are the original CSVs from? What source?

Thank you for your attention!