OPEN METADATA SOURCES

COMPARING OPENALEX TO CROSSREF AND MAG

DATE: 22 FEBRUARY 2022

Executive Summary

Here we write some background stuff, probably using the abstracts we have I guess, can also include some summary statistics and other useful things.

This report was run using the following tables as source data: Crossref: academic-observatory.crossref.crossref_metadata20220107 Crossref Member Data: utrecht-university.crossref.member_data with date 2022-02-14 OpenAlex Native Format utrecht-university.OpenAlex.Work20220130 Microsoft Academic:

- Papers: academic-observatory.mag.Papers20211206
- Authors: academic-observatory.mag.Authors20211206
- Affiliations: academic-observatory.mag.Affiliations20211206
- Intermediate: utrecht-university.mag.mag_intermediate20211206

Contents

There is actually a way, I think of pulling in a table of contents, but I haven't done that previously. Or it can be done manually obviously.

Introduction and Background

Stuff on MAG going away and the motivation for tracking completeness

Data sources

Do we need a section that gives some brief background on the data sources?

Crossref Metadata

Microsoft Academic

OpenAlex

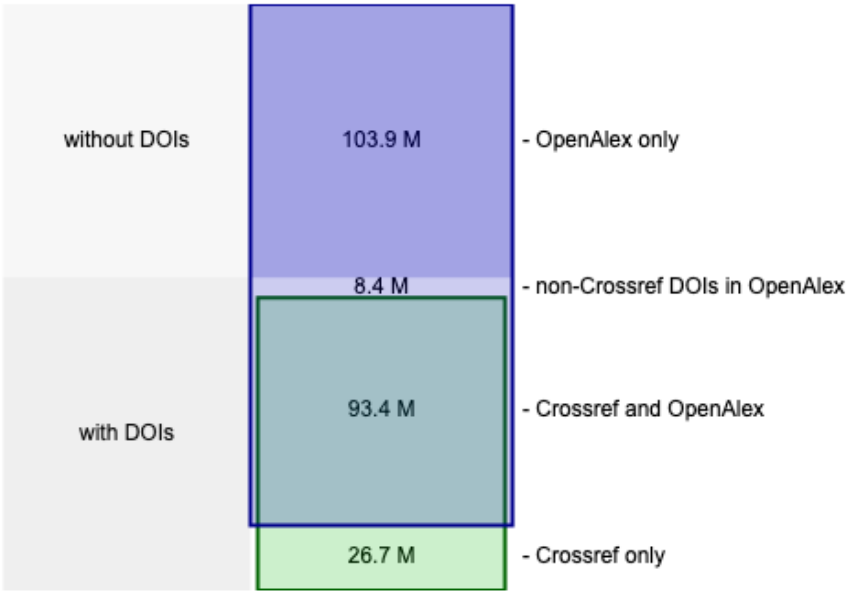
Goals of this report

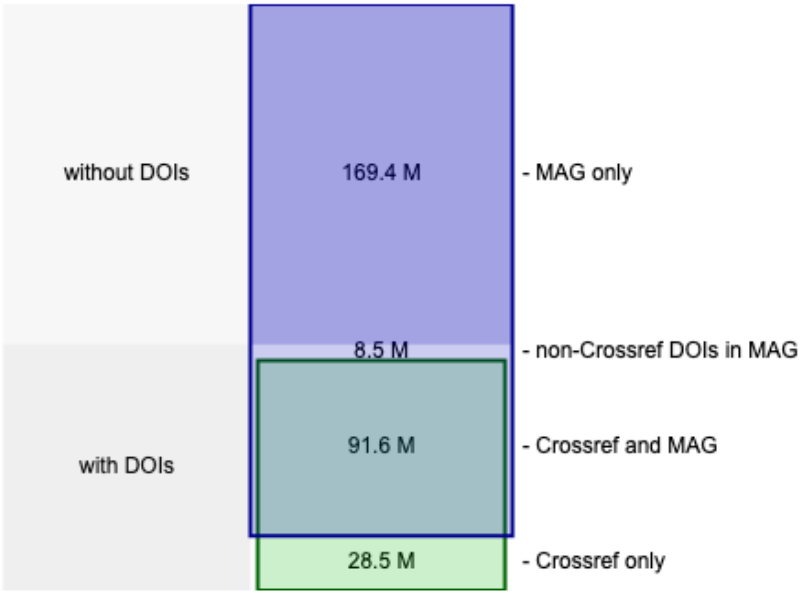
Limitations

Coverage of OpenAlex vs Crossref

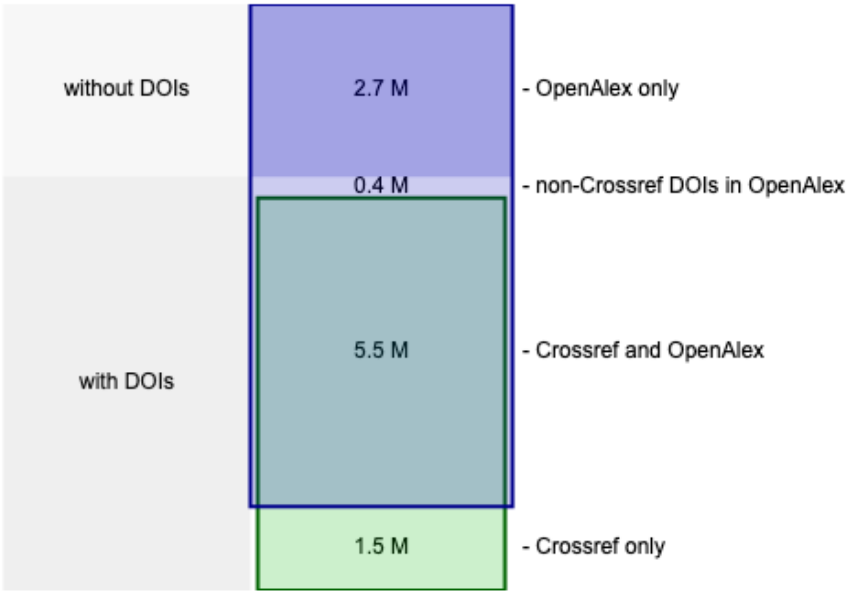
Comparing coverage

OpenAlex is based initially on metadata from Microsoft Academic and the overall coverage compared to Crossref is consistent with for publications over all time. Noting that OpenAlex has made a decision to not cover all the content types that MAG did, these two charts show a difference for the non-Crossref materials but very similar results for the content that has Crossref DOIs.


without DOIs
with DOIs
103.9 M
- OpenAlex only
8.4 M
- non-Crossref DOIs in OpenAlex
93.4 M
- Crossref and OpenAlex
26.7 M
- Crossref only



Therefore it is of interest to look at a specific recent year, in this case 2020.



Value Add of OpenAlex to Crossref

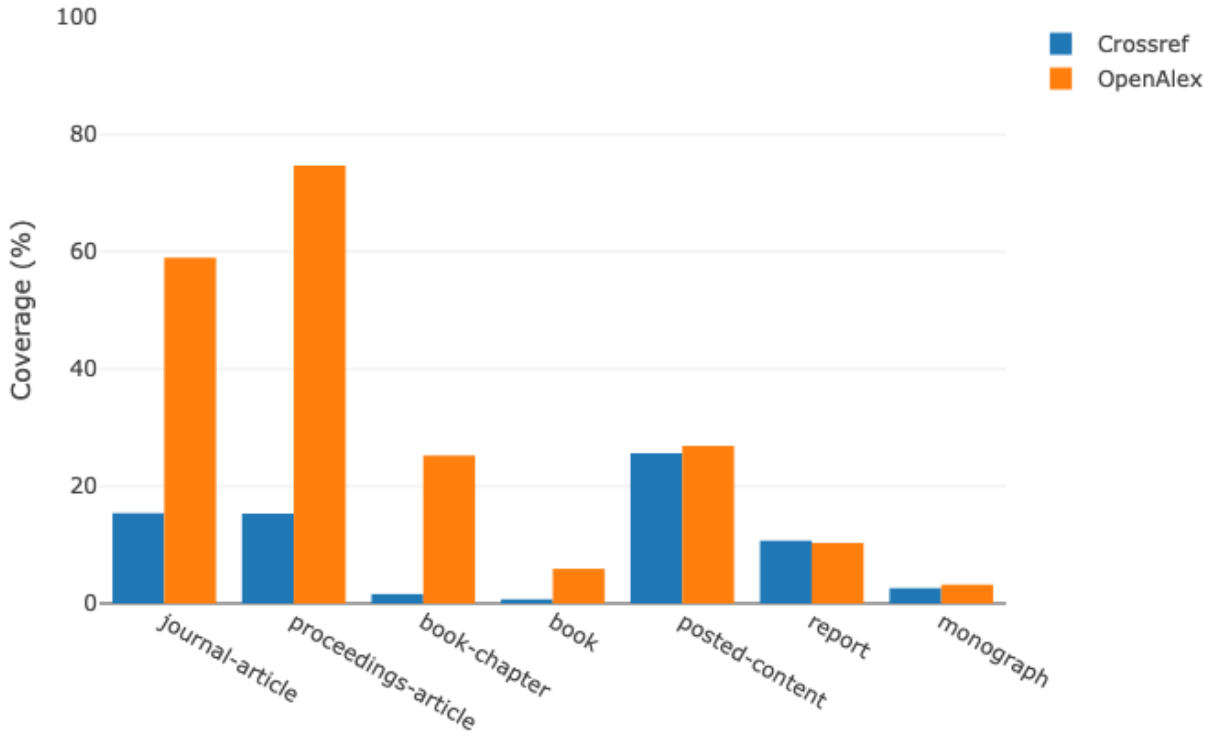
Overview

Details

We can do loops eg over the data elements. But this might be better for a supplementary data section as we will presumably want to actually comment on the graphs themselves?

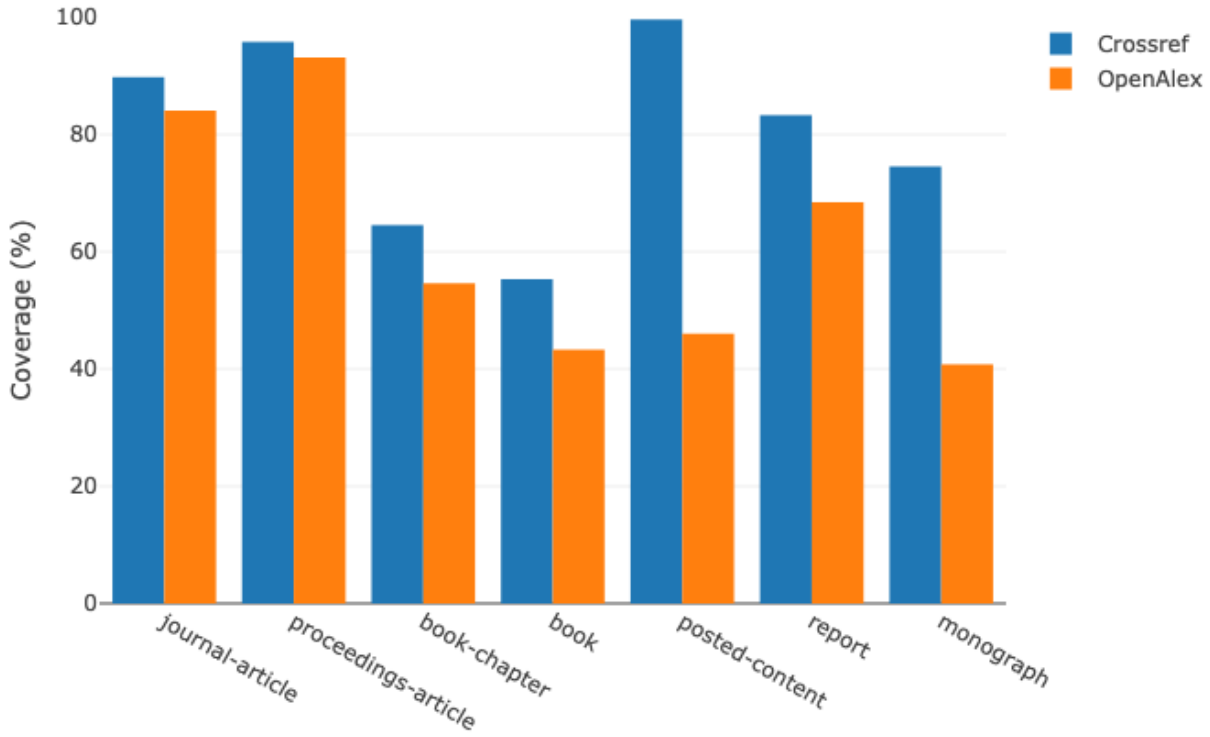
TODO: There is a bug in the xhtml2pdf package which means it only works with complete paths on windows. This creates an issue as we would need to use precipy to give us the full path but I'm not sure whether we can use a variable inside that full path declaration. Some experimentation required.

Affiliation strings



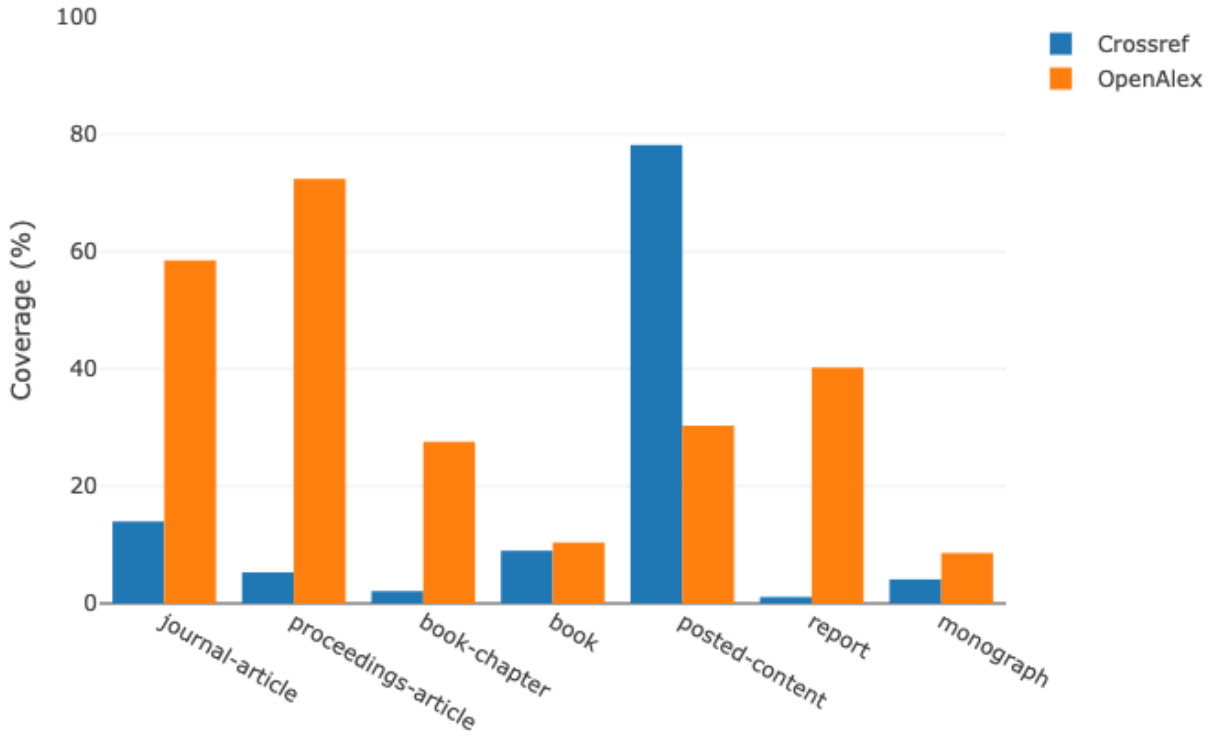
The above will not work on windows...may need to figure a work around for that

Authors



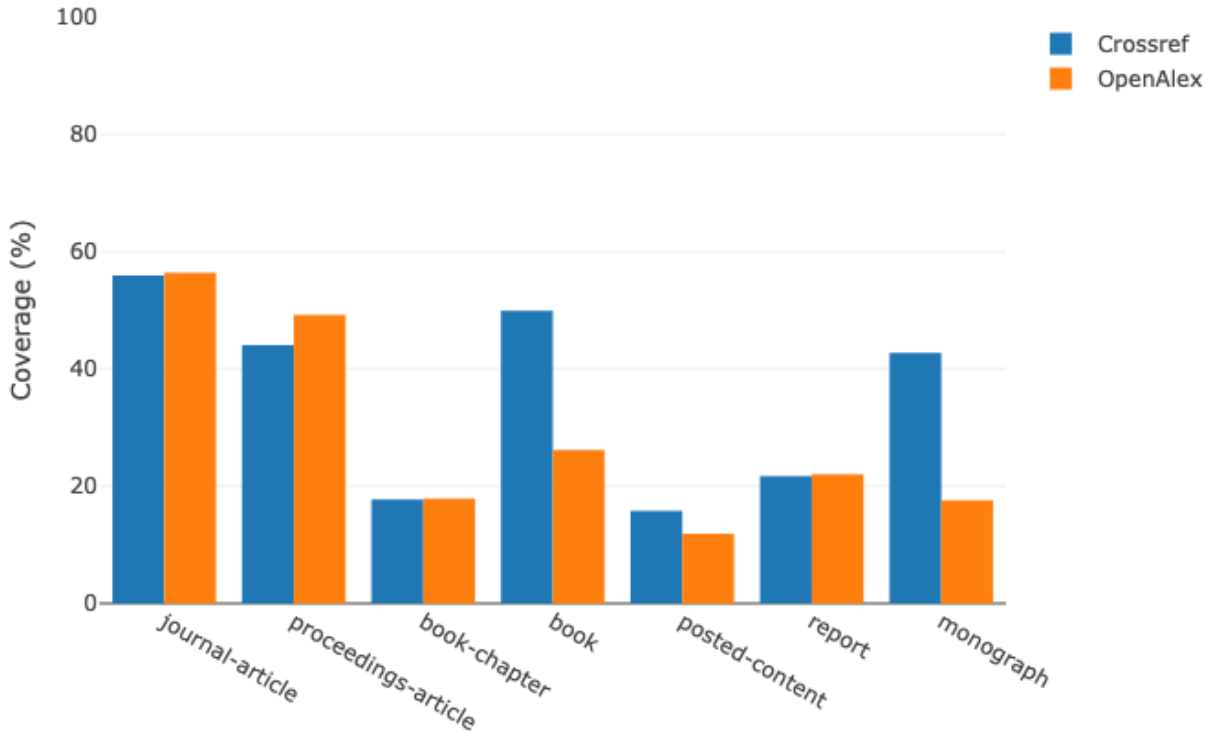
The above will not work on windows...may need to figure a work around for that

Abstracts



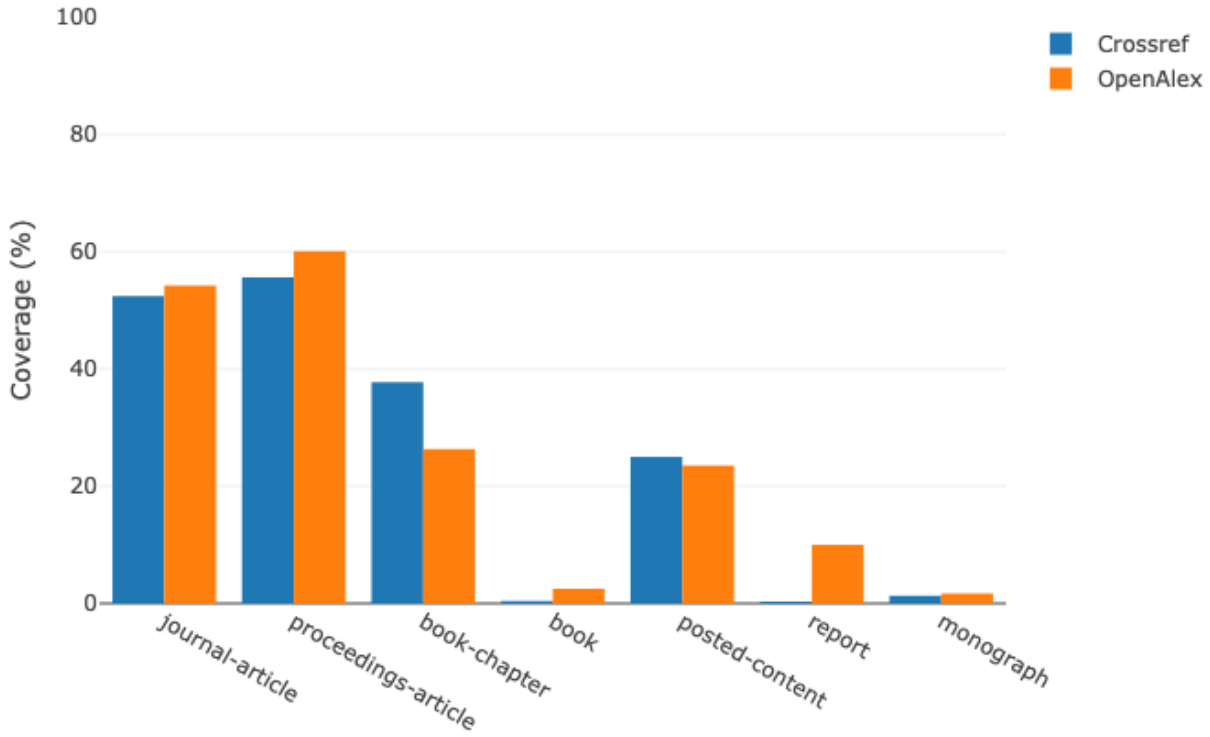
The above will not work on windows...may need to figure a work around for that

Citations to



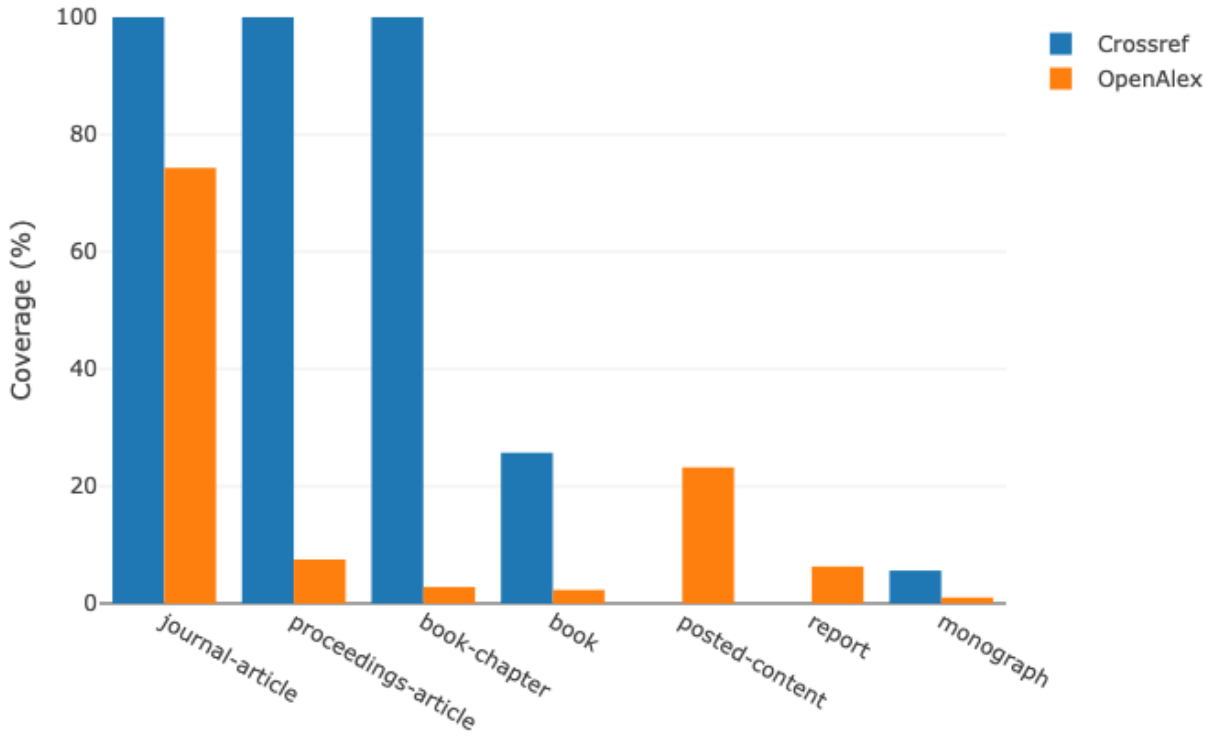
The above will not work on windows...may need to figure a work around for that

References from



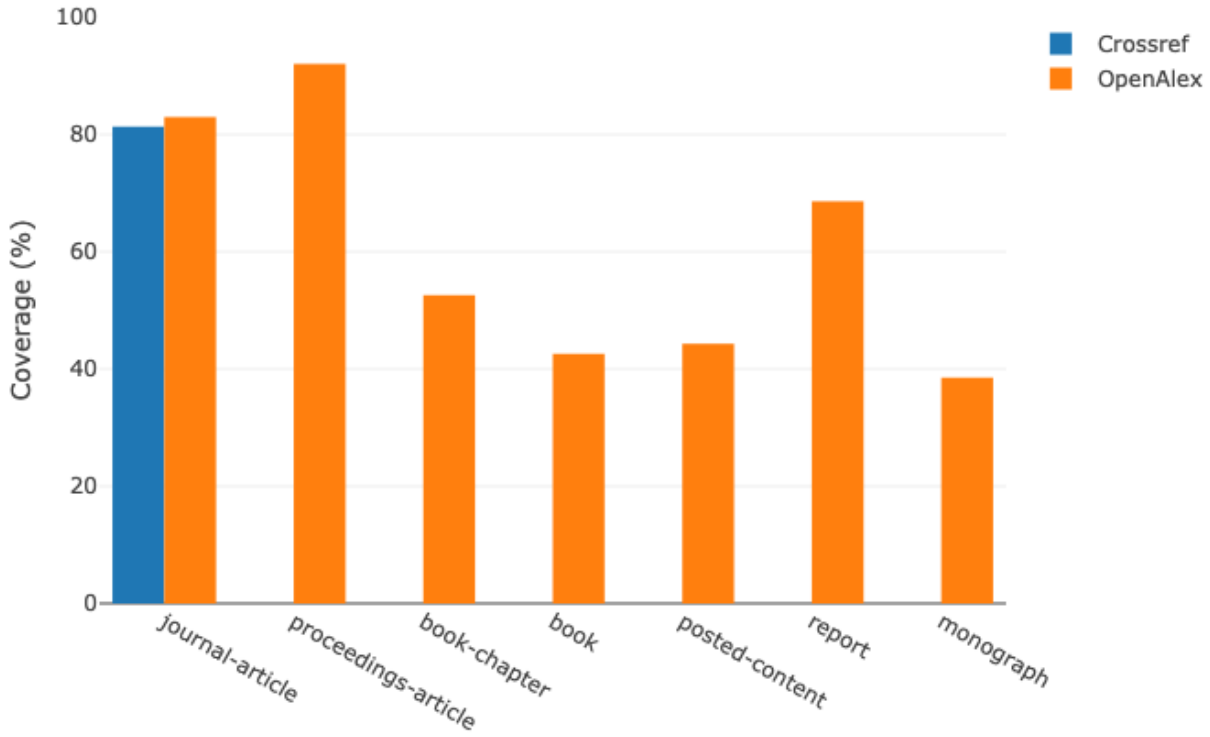
The above will not work on windows...may need to figure a work around for that

Journals



The above will not work on windows...may need to figure a work around for that

Fields



The above will not work on windows...may need to figure a work around for that

OpenAlex Coverage Beyond Crossref

Publication Types

Metadata Coverage

Overall

By publication type

By field

Methodology

Appendices

Appendix A - Complete Tables

Appendix B - Historical MAG Analysis??

1. OpenAlex - non-Crossref coverage 4a. Publication types - with and without (Crossref?) DOIs 4b. Coverage of 6 main parameters - with /without (Crossref?) DOIs 4c. Coverage of 6 main parameters per publication type
2. with/without (Crossref?) DOIs
3. Methodology
4. Appendix - tables with AllTheThingsTM