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Comparing coverage of policy citations to scientific publications in Overton and Altmetric.com: Case study of Finnish research organizations in Social Science

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Implementation of academic publications in policy documents is considered as evidence of cultural and societal impact of science. This research compared the policy coverage of 18,996 Scopus publications authored by researchers affiliated to 18 Finnish universities and institutes in eight Social Science fields. Two sources of policy citations, namely *Overton* and *Altmetric.com*, are checked and compared for coverage and overlap. The overall results suggest that on average about 39% of publications were cited in *Overton* and 9% in *Altmetric.com*. There was on average about 5% overall overlap in the coverage of documents between the two sources. The proportion of unique policy citations in *Overton* (19%) were significantly higher than in *Altmetric.com* (0,6%). Finnish universities can get a more reliable report on the extent their publications have been cited by policy documents through combining the results from *Overton* and *Altmetric.com*. However, they can trust *Overton* for significantly better coverage of national Finnish and Swedish language policy documents.

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Introduction

Some sources for tracking policy citations to academic publications have been developed in recent years. *Altmetric.com* have been the primary service to identify and collect policy citations to scientific publications, along with a number of other online sources. *Overton*, however, is a more recent service that is tracking only policy citations and is building a much broader coverage. *Overton* also tracks the reverse citations from scholarly publications to policy documents and policy-to-policy citations (Szomszor & Adie, 2022). *Dimensions of Digital Science* also includes policy citations along with the full-text of policy documents, but it only offers policy documents in English language from *Altmetric.com*. *Altmetric.com* and *Overton* are consequently the platforms with systematic tracking of policy citation sources that are being investigated in current research. This research will compare the coverage of and overlap between *Altmetric.com* and *Overton* policy citations.

Method

A total of 18,996 Scopus publications of all document types for 18 most prolific Finnish universities and institutes were selected in 8 social science fields based on the highly policy cited fields reported in Szomszor and Adie (2022). The DOIs of these publications were searched for on *Altmetric.com* explorer and *Overton* policy citations. For publications with both *Altmetric.com* and *Overton* citations, a webometric analysis of the URL was conducted to identify unique and shared policy citation sources at domain level of the URLs across the databases and then a manual checking of the shared URL domains was done to identify whether they refer to the same policy source, despite URL differences.

Findings

A total of 9,665 policy citations from *Overton* (8544, 88%) and *Altmetric.com* (1121, 12%) for a total of 10,751 publications were found. Of all publications in the study 4,202 (39.1%) and 984 (9.2%) publications showed at least one citation in *Overton* and *Altmetric.com*, respectively (Table 3).

Comparison of Policy citations in Overton and Altmetric.com

The policy citations to the scientific publications across chosen subject fields vary from 14% (vs. 3%) in Education to 31% (vs. 8%) in Development on Overton (vs. Altmetric). Tampere University showed policy uptake of between 15.1% (vs. 2.6%) in Education to 27% (vs. 8.7%) in Law.

Publications with overlapping policy citation across databases

University of Helsinki has the most publications with policy citations in both sources (4%, 226/2,045 publications). The overlap in policy documents in the data sources vary, as between 17% to 100% of policy citations in Overton could be found in Altmetric.com in institution-field level.

Table 3: Comparison of overlapping and unique policy citations in Overton and Altmetric.com across top institutes authoring with/along with Finnish affiliations - empty cells are not examined.

Universities	Count of Scopus publications	Count of publications with DOI	Count (%) with Overton Policy Citations	Count (%) with Altmetric.com Policy Citations	Documents with Policy citations in both sources	Unique publications with Altmetric.com policy citations	Unique publications with Overton policy citations
Aalto University	1161	985	224(23%)	69(7%)	65/7%	0.4%	16%
Abo Akademi University							
Finnish Environment Institute	260	255	149(58%)	40(16%)	38(15%)	0.8%	44%
Helsingin Yliopisto	5421	5045	1,100 (22%)	253(5%)	226(4%)	0.5%	17%
Helsinki University Hospital	60	60	16(27%)	3(5%)	2(3%)	1.7%	23%
Itä-Suomen Yliopisto	1830	1654	395(24%)	109(7%)	102(6%)	0.4%	18%
Kriminologian ja Oikeuspolitiikan Instituutti	55	54	34(43%)	7(13%)	5(9%)	3.7%	33%
Lapin Yliopisto	584	517	130(25%)	22(4%)	20(4%)	0.4%	21%
LUT University	330	295	36(12%)	6(2%)	4(1%)	0.7%	11%
National Institute for Health and Welfare	222	222	104(47%)	32(14%)	30(14%)	0.9%	33%
Natural Resources Institute Finland Luke	377	369	244(66%)	53(14%)	52(14%)	0.3%	52%

Oulun Yliopisto	1336	1180	220(19%)	36(3%)	32(3%)	0.3%	16%
Tampere Peace Research Institute	17	16	5(31%)	(0%)	(0%)	0%	31%
Tampere University	2289	2139	480(22%)	91(4%)	85(4%)	0.3%	18%
Turun Kauppa- korkeakoulu	62	60	13(22%)	1(2%)	1(2%)	0.0%	20%
Turun Yliopisto	2059	1922	431(22%)	107(6%)	90(5%)	0.9%	18%
Ulkopoliittinen instituutti	56	50	26(52%)	3(6%)	3(6%)	0.0%	46%
University of Jyvaskyla	2188	2096	432(21%)	96(5%)	76(4%)	1.0%	17%
Total	18996	17582	4202 (24%)	984(6%)	882(5%)	0.6%	19%

Policy sources

When examining the top level domains, there were 625 unique policy sources in both databases combined. Fifty six URL sources for policy citations were tracked by both Overton and Altmetric.com. However, Overton had identified citations from 566 unique sources and Altmetric.com from only 30. Tables 1 and 2 indicate top ten domains with the highest coverage of the publications in the dataset. Table 1 shows that Overton has identified more policy citations from websites with a Finnish country-level domain and most of them are either not covered or only partially covered in the Altmetric.com database.

Table 1: Top ten policy source URL domains in Overton.

URL Domains	Altmetric.com	Overton	Total
julkaisut.valtioneuvosto.fi	5	914	919
op.europa.eu	163	663	826
julkari.fi		376	376
dx.doi.org		336	336
jukuri.luke.fi		276	276
openknowledge.worldbank.org	32	209	241
apo.org.au		199	199
ipbes.net		174	174
zenodo.org		172	172
unesdoc.unesco.org	3	167	170

Table 2: Top ten policy source URL domains in Altmetric.com.

URL Domains	Altmetric.com	Overton	Total
op.europa.eu	163	663	826
fao.org	163	148	311
apps.who.int	114	123	237
regjeringen.no	42	26	68
publications.europa.eu	40	37	77
openknowledge.worldbank.org	32	209	241
oecd-ilibrary.org	26		26
rijksoverheid.nl	25	34	59
forskningsradet.no	25		25
africaportal.org	24	2	26

Discussion and Conclusion

This study investigated how Altmetric.com and Overton cover and which sources they used to identify policy citations to Scopus-indexed publications with at least one author affiliated to a Finnish research organization in selected fields in Social Sciences. Results show that despite the larger coverage of policy citations in Overton at institution and field level, Altmetric.com has a tiny but unique proportion of both documents cited and of policy citations that are not covered by Overton. In sum, the results indicated that combining results from both sources can provide the best reflection of policy citations, however, to get a national-account of policy implementations Overton outperforms Altmetric.com and provides a more promising citation coverage.

References

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