IMPROVING ACCESS TO OPEN ACCESS JOURNALS: ABSTRACTING, INDEXING AND CITATION SOURCES

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Abstract

The Open Access movement comprises many complementary initiatives, including digital scholarly journals, discipline-specific e-print servers, institutional repositories, and author self-archiving. Researchers are extensively using these repositories to publish their research outputs. Bibliographic control of scholarly literature of commercial publications is mostly available in the form of Abstracting, Indexing and Citation sources. But in the similar way for the open access publications it not the same case. Bibliographic control of open access e-resources is a major issue. The rapid growth of scholarly information resources available in electronic form and their organisation by digital libraries is proving fertile ground for the development of sophisticated new services, of which citation linking will be one indispensable example. Many new projects, partnerships and commercial agreements have been announced to build citation linking applications. Authors made an effort in this paper to articulate few bibliographic and citation resources.

Keywords: e-Publishing; Open Access; Citation Linking; Citation Index; Abstrating & Indexing

1. Introduction

The most fundamental problem facing journal readers, library users and, it follows, librarians, is physically to get hold of all the journal articles they need when they need them. Experience varies enormously of course, but the days in which every essential journal was held in all major academic libraries have passed. The reason most commonly cited is the economic, prices of scholarly journals have been increasing at rates much higher than inflation. There has also been growth in the number of journal titles, which reflects changes within traditional academic disciplines: broadening and subsequent fragmentation within fields, and greater emphasis on cross-disciplinary work. The problem is compounded by many other things such as shrinking number of publishers since the smaller publishers are getting bought by the bigger ones, etc. The shrinking number of publishers combined with the veritable monopoly writers grant publishers makes for higher prices.

Academic authors have a choice of how they publish and provide access to their research. Traditionally, academic authors have communicated their research through peer reviewed scholarly journals, which have become increasingly managed and controlled by publishers as a commercial enterprise. The vast majority of these publishers charge for, and therefore limit, access to journals. However,

the number of authors choosing to make their research freely available through an open access route is increasing.

The volume of scientific literature typically far exceeds the ability of scientists to identify and utilize all relevant information in their research. Improvements to the accessibility of scientific literature, allowing scientists to locate more relevant research within a given time, have the potential to dramatically improve communication and progress in science. With the web, scientists now have very convenient access to an increasing amount of literature that previously required trips to the library, inter-library loan delays, or substantial effort in locating the source.

1.1 Open Access Journals

Open access journals maintain the traditional values of journals: notably peer review, but also editing and formatting, and marketing. What is different is that OA journals are free to the end-user. Velterop gave three criteria for a journal to be open access: free accessibility to all articles, the depositing of all articles in an archive/repository, and a licence granted for the right to copy or disseminate (Velterop, 2003).

Some journal publishers currently offer delayed free access, or back access, making issues of journals free after six months or a year. In fast moving topics, such material can be out of date when the majority gain access. OA journal publishers such as the non-profit Public Library of Science (PLoS) or for-profit BioMed Central (BMC) allow immediate free access, or OA. Although these journals charge author fees, only a minority of existing OA journals do so. In some cases costs are supported by funding bodies and associations (Suber, 2005a).

Many OA journals make their article metadata available in an OAI-compliant format, meaning that OAI service providers can harvest the metadata: "In other words, e-prints in the form of open access journal content are available to all and the pointers to them are easily harvestable" (Swan et al, 2004). While there has been growth in the number of OA journals and articles, numbers of articles are still relatively low compared to those published in established subscription journals.

Every type of traditional scholarly information is available digitally in open access format. The Registry of Open Access Repositories (ROAR) at Southampton University, the Experimental OAI Registry at University of Illinois, the Directory of Open Access Repositories (DOAR) created by University of Lund and University of Nottingham have up-to-date information about the variety of repositories, and provide handy discovery tools for discovering open access scholarly databases. There is considerable overlap among these. ROAR has the valuable extra feature of charting the growth of many of the repositories.

DOAJ, the Directory of Open Access Journals maintained by University of Lund, and OAIster managed by Michigan University also provide a good overview of the variety and size of more than 2,380 open access journals and about 685 institutional digital archives, respectively. Both of them have the very important additional bonus to allow searching their content at the item level. DOAJ has 1,08,004 articles while OAIster has 9,407,171 records from 678 institutions. The numbers should be taken with a grain of salt, especially in OAIster, as the same items may appear in two or more digital collections.

There are many genres of open access digital collections. These include open access digital monographs, dictionaries, encyclopedias, directory databases, numerical databases, audio/image/video databases, beyond the most prevalent textual databases of journal articles and conference presentations. In the textual database category there are digital bibliography collections (without subject descriptors), indexing databases, indexing & abstracting databases, and full text databases.

The link is the single most important, characteristic feature of Web pages. The link allows us to approach an information resource in which any item of information is, potentially, an instant of a 'click' away, but to exploit this potential requires ingenuity and more flexible systems to be able to design and apply links more effectively than we do now. A way in which this feature of the Web can be used immediately to enhance journal papers is to build on established practice by linking citations to the cited articles.

2. Open Access Indexing & Abstracting Databases

Although availability varies greatly by discipline, over a million research articles are freely available on the web. Some journals and conferences provide free access online, others allow authors to post articles on the web, and others allow authors to purchase the right to post their articles on the web.

For example, efficient means of locating articles via web search engines or specialized search services is required, and a substantial percentage of the literature needs to be indexed by these search services before it is worthwhile for many scientists to use them. Computer science is a forerunner in web availability — a substantial percentage of the literature is online and available through search engines such as Google, or specialized services such as ResearchIndex. Even so, the greatest impact of the online availability of computer science literature is likely yet to come, because comprehensive search services and more powerful search methods have only become available recently.

When print articles and journal issues were simply discrete entities, libraries and secondary publishers provided some integration through services such as bibliographic cataloguing, indexing and abstracting. The prime role played by Abstracting and Indexing databases in pre-internet era, is now diminishing these days because the full-text databases are the most sought after. To appreciate the importance of the open access indexing databases, one has to remember that until the late 1980s they were the most common ready reference database species in the libraries which spent huge amount of money for licensing them.

The H.W. Wilson company, for example, had only indexing databases for many years. It was only in the early 1990s that for example Agricultural Index was enhanced with abstracts to become Agricultural Abstracts. These are –understandably- not open access as the content providers like H.W. Wilson, make their profit (and spend a lot of money) on creating these indexing/abstracting databases. However, beyond the most well-known indexing-abstracting databases produced by government agencies, like Medline, ERIC, AGRICOLA, NTIS, etc. there are other open access indexing/abstracting databases.

Most importantly, the largest commercial and society publishers of scholarly journals, conference proceedings and books, such as the American Chemical Society, IoP, APS, Elsevier, Springer, Taylor

& Francis, Emerald Press and many of the smaller publishers offer together open access to tens of millions of bibliographic records with abstracts for scholarly journal articles and conference papers. Some of them do so directly, others, through their digital facilitators, like SAGE, Oxford University Press through HighWire Press, Springer, and Taylor & Francis through MetaPress, and Palgrave Macmillan and many others through IngentaConnect. Publishers migrate from one digital facilitator to another, and/or let one handle some of their journals, and another the rest of their journals.

Many government agencies and professional bodies sponsoring and managing many projects at the national level in several countries to improve access to local research through supporting the publishing of indigenous scholarly journals, and the creation of indexing/abstracting databases to increase the visibility of locally and regionally pertinent research results, and to facilitate open access to the full text archives of the largest scholarly publishers.

3. Citation Indexing

Bibliometrics is the application of quantitative methods to analyse and identify patterns in the usage of materials, or the historical development of a specific body of literature, in particular its authorship, publication, and use. Bibliometric techniques are often adopted for the assessment of authors, departments and higher education institutions. The ISI Web of Knowledge database has been used for bibliometric assessment and evaluative purposes by many groups and organisations. The term 'citation' refers to a paper being cited by another author. A cited work is a paper that has been mentioned in another paper, while a citing work refers to other cited papers that it references (Garfield, n.d).

Citation indexing is the process of building an index of citations to cited items. A citation index is a database connecting citing articles to cited articles. While in a given paper its reference list points to earlier work as influences, only a citation index can provide a list of the later papers that cited the given paper. Citation indexes are used for citation analysis.

With the growth of online capabilities, citation indexes and analysis have become more sophisticated. More full-text content is now available online, providing connections between documents in the form of citations and hyperlinks. With the rise in OA journals and repositories there is potential for a greater number of journals and articles to be included in online citation indexes. While ISI was once the only source of information providing citation data, online technologies have meant that new citation indexes, some automated, have been developed.

4. Citation Indexes

Searching for cited and citing references has its own special output requirements which help the users to find the most cited papers by an author, journal or on a subject. As citation searching gains acceptance, there will be a growing demand to display information prominently about the absolute and relative citedness of the papers, and to sort the search results by citedness score. For decades the family of Science Citation Index, the Social Sciences Citation Index, and the Arts & Humanities Citation Index of the Institute for Scientific Information (ISI) represented the only databases which included the list of cited references. The introduction of the Web of Science (WoS) service on the Web of Knowledge (WoK) platform a few years ago brought out much more from this unique database than the few existing implementations by online aggregators (DataStar, DIALOG, DIMDI).

Others also realized the immense advantage of using cited and citing references to complement subject searches, and to discover scholarly papers which would not be found by subject searching for several reasons. Elsevier jumped on the bandwagon with vigour by launching the Scopus database. Its tagline emphasizes that it is the largest indexing/abstracting database, but its special value is in the close to eight million records enhanced with about 180 million cited references. The majority of these are included in the records prepared for scholarly articles and conference papers published after 1995.

Publishers increasingly offer hot-linked, actionable cited references in their digital archives. HighWire Press, by far the best of the digital facilitators which help publishers in digitizing their archives, goes a step further. It automatically displays a list of short entries of the articles published in journals in its stable which cite the article being looked at. There is still much to be done to exploit the power of cited references which provide a network of related papers deemed relevant by the authors to cite. These citing links become bi-directional as soon as a citing paper is cited by a subsequent paper, and the network of related papers keeps growing – exactly as envisioned by Eugene Garfield in creating his citation indexes 50 years ago. Obviously, these intellectual links are so much easier to follow on the web and should be presented prominently at every phase when the output of a search is displayed. The Open Access movement comprises many complementary initiatives, including digital scholarly journals, discipline-specific e-print servers, institutional repositories, and author self-archiving (Jacso, 2006).

While these initiatives vary in intent, scope, and implementation, they all support the same concept: that scholarly research should serve the interests of the scholars themselves, and that those interests are best served by the broadest access to the largest body of high-quality research.

5. Citation Indexing Services

Existing citation indexing services include both pay-to-use selective journal indexing, and free-to-use Web indexing. Selective journal indexing services: ISI Web of Knowledge, Elsevier's Scopus and CrossRef are examples of selective journal citation indexing, and are provided on a commercial basis.

5.1 ISI Web of Knowledge

Launched in 1997, ISI Web of Knowledge (http://isiwebofknowledge.com/index.html) is a multidisciplinary citation indexing service based on a number of ISI databases including: Science Citation Index (1900-present), Social Sciences Citation Index (1956-present), Arts & Humanities Citation Index (1975-present), Index Chemicus (1993-present), and Current Chemical Reactions (1986-present). The index covers 28 million records from 1975-2005, from more than 9,000 journals, including research journals in the arts, humanities, sciences and social sciences (including, at present, over 230 OA journals).

Web of Knowledge allows navigation using cited references and number of times cited, and records can be exported to bibliographic management programs. Results can be sorted by source title, first author or citedness. When sorted by citedness, the user can view the most-cited works. Overall, ISI Web of Knowledge has been praised as one of the best citation indexes. While it has many biases, it gives a wide coverage of most fields. As the oldest citation index, it is used by a large number of organisations and individuals (Hardy, 2005).

5.2 Scopus

Scopus (http://www.scopus.com/) is an online bibliographic abstract and indexing service developed and operated by the publishing group Reed Elsevier. Scopus was launched in November 2004 and covers 15000 international journals from over 4,000 international STM publishers (including five years of back lists), and currently over 500 OA journals. The main scope of the database is science and engineering but other disciplines are included. Scopus searches the Web using the Elsevier Science Internet search engine (Scirus) and claims to include the largest collection of abstracts.

Scopus is sold to both commercial and educational institutions by subscription, which varies according to the size of the institution. The Scopus Web site offers detailed information regarding the use and features of the database. The service is OpenURL-compliant. In this way full-text links (via a link resolver) are shown if the library of the institution has a subscription to access the article.

Scopus offers quick, basic and advanced search functionality and results can be viewed and ranked by date, relevance, author, source title and number of citations (cited-by's). Following a search, the results list shows the bibliographic elements deemed most important (these consist of publication year, article title, author(s), source title and 'citedness' count) in a grid layout.

Scopus allows the user to browse the cited references, view citations of individual documents from other documents in the database, set up document citation alerts for new articles that cite a chosen document, and export citation counts for individual search results (Hardy, 2005).

5.3 CrossRef

Launched in 2000, CrossRef (http://www.crossref.org) is a collaborative reference linking service for electronic scholarly information. CrossRef is operated by the Publishers International Linking Association, Inc. (PILA), a not-for-profit, independent organisation, established by a number of leading scholarly publishers. The aim of CrossRef is to provide a citation-linking backbone for online publications. The service does not host full-text information, nor does it present linking services directly to users, but it allows participating publishers to share article metadata and add reference linking capability to their online services: "The end result is an efficient, scalable linking system through which a researcher can click on a reference citation in a journal and access the cited article" (Crossref, n.d.).

Over 1,000 publishers, societies, libraries, affiliates, agents, and journal-hosting platforms participate in CrossRef and are charged annual fees that are dependent on gross publishing revenue.

CrossRef uses Digital Object Identifiers (DOIs) as persistent identifiers. DOI is based on an open standard and identifies electronic content and its location through managed directories. CrossRef is an authorised agent that can allocate and register DOIs and operates the infrastructure to allow the declaration and maintenance of content metadata (Misek, 2004). DOIs can be used in and by many systems (OpenURL and CrossRef, n.d.).

Crossref uses OpenURL, which recognises users with access to local resolvers. When following a DOI link metadata is retrieved from the CrossRef database to create an OpenURL that is sent to the

local link resolver. Selected articles might be available from various sources within a library service, and OpenURL directs the user to the most appropriate resources within a library-supported, paid-for service providing access to the selected article (OpenURL and CrossRef, n.d.).

6. Web Indexing Services

Many academic authors increasingly post material on personal Web pages, thereby making the material available through general Web search engines. Web indexing services to mention few include Google Scholar, CiteSeer, Citebase Search and ISI Web Citation Index. All, apart from ISI, are free-to-use.

6.1 Google Scholar

Google Scholar (http://scholar.google.com) provides a new method of locating potentially relevant articles on a given subject by identifying subsequent articles that cite a previously published article. An important feature of Google Scholar is that researchers can use it to trace interconnections among authors citing articles on the same topic and to determine the frequency with which others cite a specific article, as it has a "cited by" feature.

Google Scholar, the beta version of which was launched in November 2004, offers a search engine that indexes and searches scholarly literature across an array of sources and disciplines, including academic publishers and OA materials from Irs, preprint repositories and the Web.

The service includes peer-reviewed papers, theses, books, preprints, abstracts and technical reports, and claims to include all broad areas of research (Google Scholar, 2004). However, reviews of Google Scholar showed that coverage was stronger in science and technology than in the humanities (Google Scholar FAQ, 2005) with Jacso reporting significant gaps in the coverage of disciplines as well as materials (Jacso, 2004a).

Google Scholar has since begun working with various service providers and content aggregators to offer OpenURL links to overcome this difficulty. For example, Google Scholar will display OpenURL links to SFX link servers from Ex Libris, enabling institutions with an SFX link server to have their electronic library holdings displayed in Google Scholar search results, indicating when full text is available (SFX links up with Google Scholar, 2005). As well as linking its results to other services, e.g., via OpenURL, Google Scholar is beginning to be integrated within other services pointing at it. From May 2005, BioMed Central started adding links to Google Scholar from BMC articles that are more than a month old. These links run Google Scholar searches for articles linking to the BMC article (Suber, 2005b).

The citation tool identifies citing items extracted from reference footnotes of other documents, bibliographies, and curriculum vitae and makes these available via a link from articles listed in search results (Jacso, 2004a). Clicking on this link displays a list of documents and articles that have cited the original document. The number of citations is factored into the ranking algorithm, and therefore highly cited items appear high in the list of search results. Google Scholar is a work in progress that has had an immediate impact and has already gained widespread acceptance and use principally due to its association with the parent Google company. Despite its identified shortcomings, all Web citation services are working in the shadow of Google Scholar (Hardy, 2005).

6.2 CiteSeer

CiteSeer (http://citeseer.ist.psu.edu/) was created by a number of academics using autonomous citation indexing in the creation of a digital library to search for and locate articles, extract citations, identify citations to the same article and identify the context of citations in the text of articles.

Now called ResearchIndex, Citeseer was developed in 1998. CiteSeer is an autonomous citation indexing system, a Web-based information agent which links to citing and cited publications. CiteSeer incorporates citation context, full-text indexing, related document identification, query sensitive summaries, awareness and tracking, and citation graph analysis.

CiteSeer operates by using Web search engines for crawling to find articles and heuristics to locate papers. For example, CiteSeer searches for pages that contain the words 'publications', 'papers', and 'postscript', downloads the Postscript or PDF files, and converts them into text using PreScript from the New Zealand Digital Library project (Lawrence et al, 1999). CiteSeer detects and skips duplicates and uses document parsing to convert the postscript files to text. The system then extracts the necessary information (e.g., URL, header, abstract, citations, citation context) and the full text for inclusion in the database.

CiteSeer can extract individual citations from located articles using citation identifiers, vertical spacing or indentation. Each citation is 'parsed' using heuristics to extract metadata: "By using regular expressions, CiteSeer can handle variations in the citation identifier, such as when a citation lists all authors or only the first author". However, maintaining heuristic parsers is expensive and error-prone, as they have to be adapted to cope with a very wide range of possible citation formats, and operate successfully across all disciplines.

The CiteSeer database can be searched using full Boolean search with phrase and proximity support, and by citation-based links or key words, and papers can be ranked by number of citations. Results of a search show the exact form of each citation, a link and URL to the citing document, and the context of the citation in the citing document.

"CiteSeer's window displays the number of citations to each article in the left-hand column. The "hosts" column indicates the number of unique hosts (Web servers) from which the articles containing the citations originated. The "self" column indicates the citations to the given paper that CiteSeer predicts are self-citations" (Hardy, 2005).

6.3 Citebase Search

Developed at the University of Southampton, Citebase (http://citebase.eprints.org) is an autonomous scientometric tool to explore and demonstrate the potential of OA material. The database presents a citation impact and search service for large e-print archives. One of the first OAI services, Citebase was announced in December 2001, and now integrated with arXiv.org, has a large number of users.

Citebase originally provided a service to physicists as well as a source for researching infometrics. The service aimed to hyperlink every paper from the arXiv e-print repository to every paper in the archive that it cites. It now harvests records from other archives as well as arXiv (Jacso, 2004b):

"Citebase….currently harvests self-archived full-texts from 2 central OA Eprint Archives, arXiv.org and Cogprints, 2 local institutional OA Eprint Archives — a Southampton University departmental archive (ECS) and Southampton's institutional archive — plus 1 publisher-based OA archive, Biomedcentral" (Brody, 2004).

This autonomous system ranks OA papers by impact. It is free to the end-user and offers both a human user interface and an Open Archives (OAI)-based machine interface for further harvesting by other OAI services. Citebase reference links are OpenURL-enabled, pointing to links at library and journal services, (Hitchcock et al, 2003). Citebase Search in principle plans to expand to cover research articles from all online e-print archives and IRs (both pre- and post- peer-reviewed articles). Citebase combines metadata harvested from e-print archives using the OAI-PMH and references parsed from the full-text, harvested using bespoke interfaces.

Citebase does not store full text documents, but utilises different methods, depending on the harvested source, to retrieve the full-text of articles for indexing. From BMC full texts are retrieved in XML by requesting a different metadata format from BMC's OAI interface where the structured references can be read directly and stored in the database. The ArXiv.org article format is harvested and parsed for references, which are in turn parsed into structured references. The Dublin Core metadata from Cogprints includes the URLs of the formats available for the full-text of the article. Citebase retrieves the formats such as PDF, HTML and plain text and attempts to parse out both the reference section and individual references.

The Web interface/user service to Citebase is a metadata search engine that provides links to abstract pages. Search results are returned in a number of ways, which can be selected by the user: "The search engine allows searches to be made by author, title/abstract free-text, the journal title, and date of publication. Results can be returned in one of 6 rankings: citation impact of the article, citation impact of the article's authors, web downloads of the article, web downloads of the article's authors, date of creation, and date of last update" (Hardy, 2005).

6.4 ISI Web Citation Index

The Web Citation Index is a multidisciplinary citation index of Web-accessible, scholarly research papers (including articles, preprints, theses, dissertations, proceedings, technical reports, and other gray literature). Data in Web Citation Index dates from 2004 and it aims to be a multidisciplinary citation index of scholarly content from Web-based institutional repositories. Immediate access to the full text of these documents is available. The Web Citation Index uses some of the Autonomous Citation Indexing software developed by NEC Laboratories America in Princeton, NJ. This technology extracts source information and references from documents and builds an index with cited and citing relationships. This technology currently supports the CiteSeer database of computer and information science papers (http://citeseer.ist.psu.edu/). Thomson Scientific has enhanced this technology in many ways. For example, additional software harvests Open Access Initiative (OAI)-compliant metadata (if available) and combines it with full-text indexes of each document.

Through the Web Citation Index interface, customers can perform cited reference searches and navigate through the Web-based literature by using the cited and citing relationships that exist among the indexed documents. Customers also have the ability to link back to the Web of Science if

the Web-based document cited or was cited by a Web of Science article, or if the document also was indexed in the Web of Science.

This tool, which will be fully launched later this year, uses cited reference searching as well as technology developed by NEC to bridge the traditional world of scholarly publication and the evolving world of research being published on the Internet.

When fully operational, the new resource will be a unique content collection within ISI Web of Knowledge. It will complement the Thomson ISI Web of Knowledge®, and provide researchers with a new gateway to discovery — using citation relationships among Web-based documents, such as pre-prints, proceedings, and "open access" research publications. (Martello, 2005).By making it possible for authors to see the impact of their work, the Web Citation Index will no doubt encourage the use of institutional and subject-based archives by authors.

Overall, the Web indexing services differ in discipline, use, material covered and tools offered. While a number of reviewers have compared the functionality and tools of these services, others have argued that future services should use a combination of the existing services. Ultimately, many users cross disciplines and require different tools, and therefore will need to utilise a number of the services (Hardy, 2005).

7. New Initiatives

New initiatives such as CiteuLike (http://www.citeulike.org/) and Connotea (http://www.connotea.org) are services that automatically extract the citation metadata so authors do not have to add it manually. Such services may be useful as a model for a future OA citation index.

While a number of these services are beginning to include open access components and material (e.g.,, ISI and SCOPUS), the Leiden Declaration of the OACI Working Group stated that: "…there is significant need to extend the system beyond the expensive framework of those two toll-gated products to 'open access metrics on open access publication". The OpenURL framework is now a NISO standard. The standard defines the architecture for creating OpenURL framework applications. It specifies and defines core components, including metadata format, and explains how a new OpenURL framework application can be deployed (NISO, 2005).

OpenURL is a mechanism for transporting/encapsulating citation metadata and identifiers describing a publication, for the purpose of context-sensitive linking: "The OpenURL standard is a syntax that creates web-transportable packages of metadata and/or identifiers about an information object. OpenURL metadata packages are at the core of context-sensitive or open link technology, now widely used in many scholarly information systems and by Google Scholar. By standardizing the syntax, innovative user-specific services can be created so content in various disciplines and business communities can be Web-enabled." (NISO, 2005).

OpenURL is a protocol for interoperability between an information resource and a service component, often referred to as a link server, enabling a link to lead to the desired resource (OpenURL Overview, 2004).

One important factor for all authors is the impact of their work. If authors can see an improvement in the impact of their work because of OA they will be more willing to use OA routes. Brody (2004) argued that: "Increased access generates the increased impact".

8. Conclusion

While these initiatives vary in intent, scope, and implementation, they all support the same concept: that scholarly research should serve the interests of the scholars themselves, and that those interests are best served by the broadest access to the largest body of high-quality research. There is need to standardisation of bibliographic metadata within full-text articles in OA Institutional Repositories (e.g., using OpenURL). Structured bibliographic data at the point of deposit will allow impact-based services to easily link citations, and hence analyse the research impact of articles made available through OA. With the increase of scholarly material available on the Web, particularly through Institutional Repositories (IRs), there is an opportunity to build a 'joined up' autonomous, user-driven structure for undertaking citation analysis for open access (OA) material.

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