crossref

2013/2014 ANNUAL REPORT

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crossref

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CELEBRATING 15 YEARS OF CROSSREF.

CROSSREF'S NEUTRALITY AND OPENNESS TO THE CONCERNS OF ALL ITS CONSTITUENCIES HAVE BEEN CENTRAL TO ITS ABILITY TO INTERACT WITH A WIDENING RANGE OF GROUPS.

CROSSREF DASHBOARD

8,426,952
BOOK DOIS (12.5%)

3,714,504
CONFERENCE DOIS (5.5%)

1,617,590
COMPONENT DOIS (2%)

53,575,746
JOURNAL DOIS (80%)
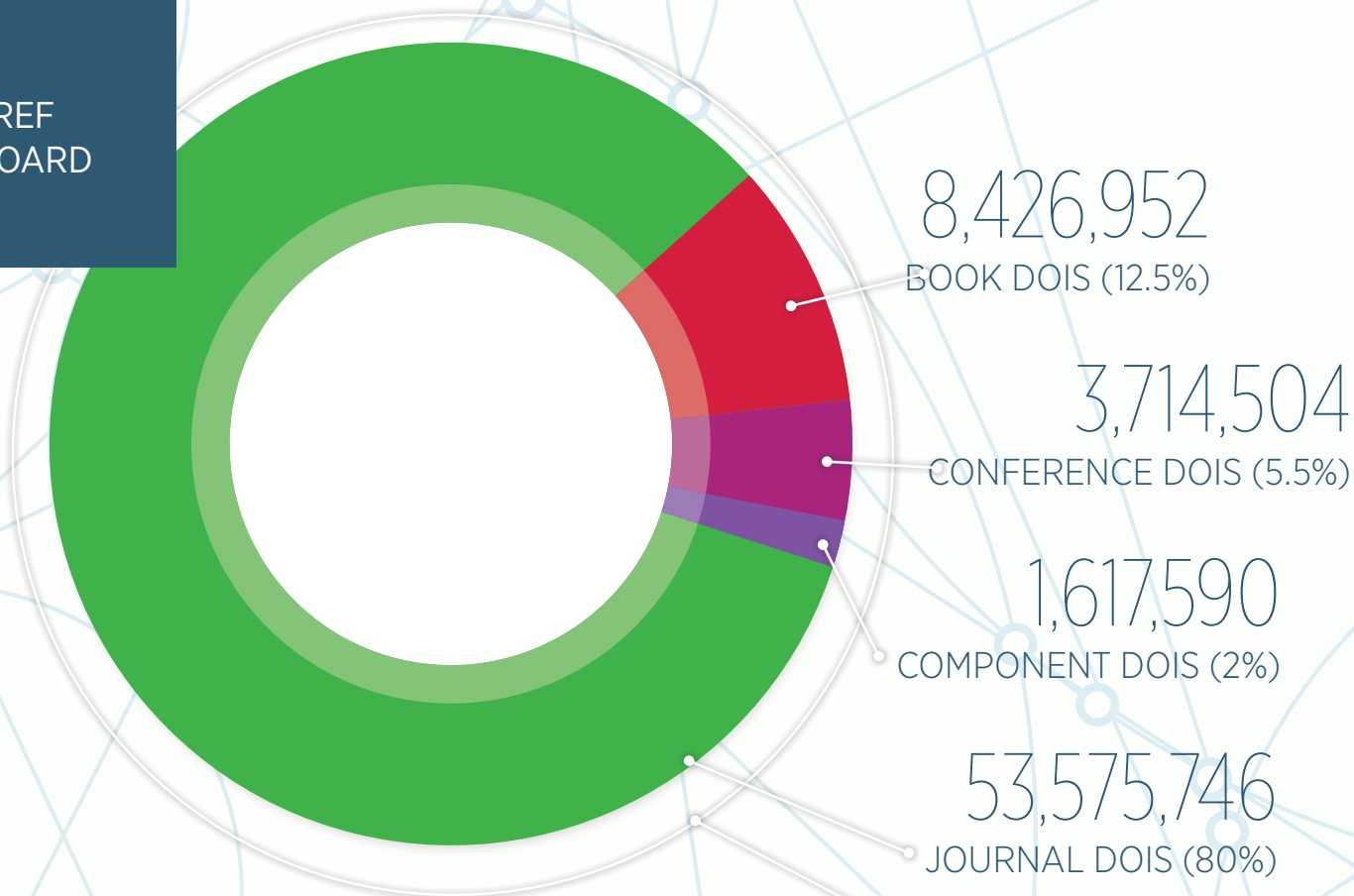
68,575,762
Registered CrossRef DOIs

More than 68.5 million items of scholarly content are now registered in the CrossRef system, including journal articles, conference proceedings, books and book chapters, reference entries, technical reports, standards, and data sets, with books being the fastest-growing category.

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As CrossRef has engaged with a wider group of stakeholders in developing its recent offerings, we have realized that, beyond the CrossRef membership, there is a lack of consistency in the understanding of what CrossRef does. Its central role in the global scholarly communications community is less widely recognized than it should be, and as the portfolio of services has grown, their relation to the organization and its mission has not always been clear. To address this, CrossRef launched a branding project in 2013 that has brought a new, unifying visual identity and brand narrative, and a nomenclature that will connect every product to the CrossRef name and communicate its purpose unmistakably, all to be implemented in 2015. A more holistic representation of CrossRef, which has been strongly associated with the DOI, is also useful in differentiating us from the newer IDF Registration Agencies now working with DOIs in various ways.

The CrossRef membership continues to grow in both number and diversity, now including more than 5,000 participating organizations from more than 100 countries, producing scholarly content in many languages, often multiple languages. Usage of the system continues to grow significantly; the number of DOI resolutions (clicks on links) in 2013 passed the 1 billion mark, and the number for the first half of 2014 is 27 percent over the same period prior year. There is strong growth in deposits for non-journal content — books, theses and dissertations, standards, and databases (now including historically significant correspondence); the system now includes records for more than 533,000 book titles, a 38 percent increase over last year. With CrossRef in its 15th year of operation, the ongoing trend of double-digit growth in all these indicators is notable.

After a successful 2013 pilot, CrossRef Text and Data Mining services launched in May, an extension of the CrossRef infrastructure that serves emerging needs of researchers in a way that is readily manageable for publishers and accommodates their access models and technical requirements. Participation in CrossCheck continues to increase, with publishers now screening an average of more than 150,000 manuscripts through the system each month. Growth in deposits for CrossMark was slow

in 2013, but is picking up as more publishers complete the necessary adjustments to their workflows and begin to benefit by the service's effectiveness in tracking and displaying post-publication changes and updates. CrossRef is now developing a recommended taxonomy for post-publication assertions that will provide publishers with a common terminology and promote best practices in their use of the service.

In keeping with presenting CrossRef's services in a more integrated way, we have created a new application programming interface (API) that consolidates the metadata search functions of a number of previous APIs. As CrossRef extends the range of metadata it collects, which now includes information on funding and licensing and to enable text and data mining, the queries submitted to the system are becoming more complex, going far beyond the original function of matching references with DOIs to create links. For funding agencies using this metadata to verify compliance with their publication policies, and for other stakeholders tapping it for other purposes, the new API will provide a single, convenient access point.

Over the past year, the Open Access and Metadata Indicators Working Group of the National Information Standards Organization (NISO), which I have co-chaired with Cameron Neylon of PLoS and Greg Tananbaum of ScholarNext, has worked to develop standardized access metadata for

Open Access publications, which are disseminated through a variety of business models. The group has issued its Final Draft Recommendations, which include a simple free-to-read tag as well as more detailed licensing information.

CrossRef continues to be involved in key industry initiatives. We are participating in both CHORUS (with representation on the Technical Working Group) and SHARE, and I continue to serve as Chair of the ORCID Board of Directors. We are working towards full integration of ORCID's researcher and contributor ID service with the CrossRef system. We are also collaborating with DataCite, a DOI Registration Agency primarily involved in assigning DOIs to data for institutional and subject repositories, as well as with national libraries and data centers, to ensure seamless linking between journal articles and published datasets. CrossRef's recent agreement with the California Digital Library (CDL), a founding member of the DataCite consortium, is an important step forward in the interoperability of DOI systems, connecting the EZID digital identifier service developed by CDL for its participating library publishers with the CrossRef system. With its membership representing the global spectrum of publishing, and with its involvement in organizations and initiatives at the forefront of emerging trends, CrossRef is very much at the center of things, a true hub of scholarly communications.

Edward N. Pentz, Executive Director

In a year of high-profile CrossRef activity, including the strong uptake of FundRef, involvement in CHORUS and SHARE, and the recent launch of CrossRef Text and Data Mining, there has also been exceptional work done in delivering on the core infrastructure and in building membership. The new implementation of multiple resolution for books is a vital improvement for a market that has been characterized by a proliferation of standards and platforms. There are now more than 5,000 publishers and societies from over 100 countries participating in CrossRef, with 57 percent of the publishers not-for-profit, all indicators of the organization's broad reach.

The success of CrossRef derives in no small part from the quality and continuity of the staff. Executive Director Ed Pentz and his senior team have been together for many years now, and all have grown with the organ ization. As they have gained experience, their skills have increased and their networks have expanded tremendously, now encompassing not only publishers of all sizes and shapes but also libraries, funding agencies, and startup businesses that require DOIs to fuel their infrastructures. In an environment in which rapid change is the norm, the staff is as always supported by the guidance of the Board of Directors, which over the past year has addressed strategic issues on several fronts.

With CrossRef's ongoing growth and the expansion of its offerings and the constituencies they serve, it had become clear that the CrossRef brand and its message needed to be communicated in a more focused and coherent way. The resulting branding initiative has yielded a set of recommendations that will help to clarify CrossRef's role as the hub of scholarly communications going forward.

The research conducted as part of the branding initiative revealed that while there has been significant confusion about exactly what CrossRef does, there is a very high level of trust in CrossRef among our communities of interest. It is similarly worth noting that CHORUS, a publisher-driven response to Open Access, and SHARE, a primarily library-driven response to Open Access, are both tapping CrossRef's funding metadata to enable their reporting tools. Long established as a center of collaborative innovation, CrossRef has fostered a culture of openness and neutrality that has been crucial to its success in serving an ever widening spectrum of stakeholders.

Ian Bannerman, Chair, Board of Directors

The central focus of technical work at CrossRef continues to be on maintaining the optimal performance of the core system. In line with that, a major modification to the way the system processes queries is now in the testing phase, with deployment anticipated by the end of the third quarter of 2014. The modification addresses the long-held goal of improved scalability and performance for the system, to handle the ongoing growth in both its use and the amount of data it contains. The annual total of queries went from 726 million in 2011 to more than 1 billion in 2012, and the process becomes more onerous as there are more items to sort through. The modification employs the Apache Solr open source search platform, a new technology with capabilities beyond those of the relational database currently in use. Other notable improvements include a feature that notifies members when the processing of deposits is completed, using a Web callback technique that replaces sending log files via email.

Although CrossRef has accepted deposits for standards for several years, the deposit schema as originally conceived is not ideally suited to their characteristics, which differ in important ways from those of journals and books. Where a journal article is a distinct entity (with occasional updates and corrections) and a book is a distinct entity (with its subsequent editions clearly distinguishable), a standard is a family of documents that grows through a life cycle of revision and updating, with adoption by national

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standards bodies in some cases providing an additional level of modification for local conditions. CrossRef has engaged in discussions with a group of standards publishers and has made changes in the deposit schema to represent the relationships among these multiple components in a way that meets the needs of the standards world.

Increasingly, CrossRef members are interested in making deposits for a range of non-traditional content types — online training materials, learning modules, and more — loosely classified as online resources. CrossRef accepts deposits for non-traditional items such as reports, papers, and databases (covering a variety of content), but to accommodate these newer items effectively will call for a dedicated approach to defining their metadata. CrossRef staff members plan to engage with interested parties to establish requirements through a dialog that is expected to be ongoing as additional types of online resources arise.

Work is under way on enabling members to include information in their deposits that represents relationships of items to others in the CrossRef database as well as to items with non-CrossRef-assigned DOIs, so that, for example, the metadata for a review article can indicate the work being reviewed and the metadata for a research article can indicate its cited data sets. The need for this capability has to an extent been highlighted by the uptake of CrossMark. Established with a relational mechanism for displaying updates and corrections to articles and their funding sources, the service is also being used by publishers as a reservoir for other kinds of entries, such as links to comments in blog posts. The new capability will provide publishers with a direct path for embedding all types of relationships in their metadata deposits, opening the way for them to build new tools on their web sites by which readers can track these connections.

The CrossRef branding initiative has underscored the importance of communicating the interrelatedness of CrossRef's activities, and it is worth noting that the work on standards, online resources and representing relationships among content items all ties in to CrossRef's core function of gathering and redistributing metadata in ways that serve the needs of an ever-expanding group of stakeholders.
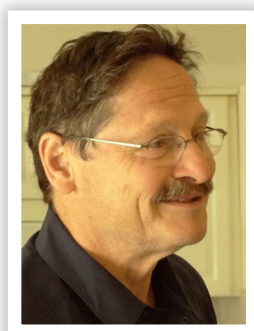
REVENUE GROWTH BY YEAR

(MILLIONS)

5.73
MILLION
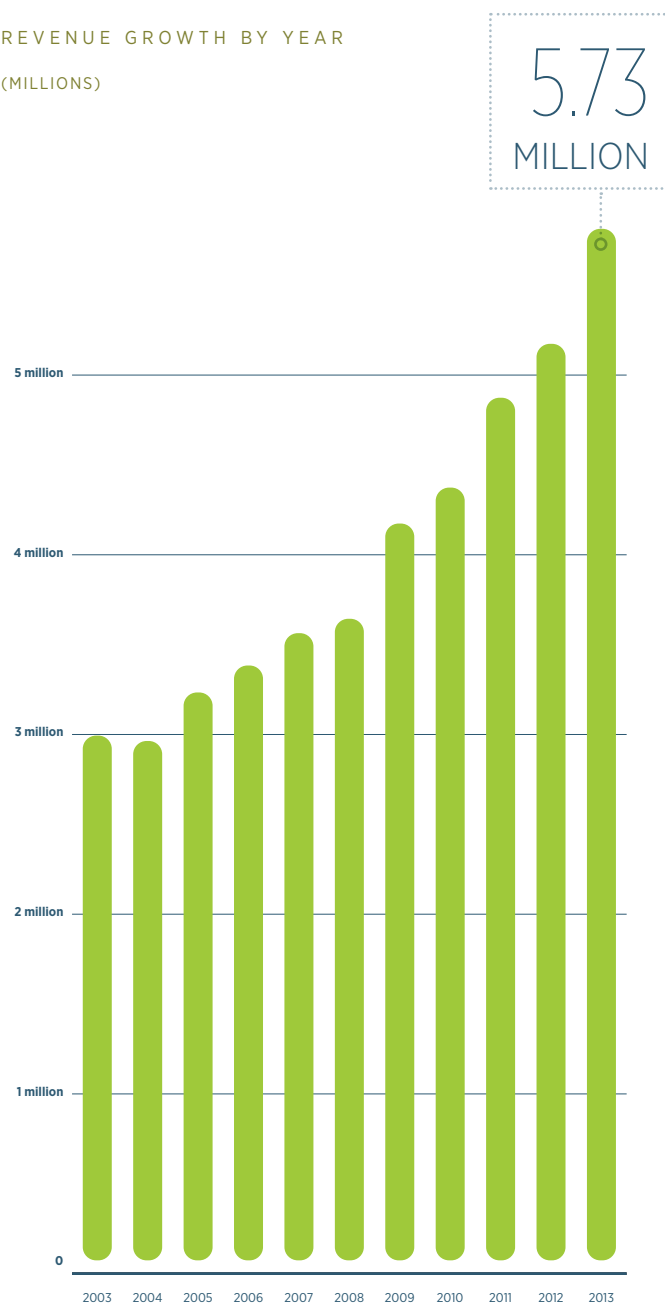
STATEMENT OF ACTIVITIES

YEARS ENDED DECEMBER 31, 2013 AND 2012

UNRESTRICTED NET ASSETS:	2013	2012
REVENUE AND SUPPORT:		
Deposit fees	$3,454,340	$3,128,505
Member fees	2,275,593	2,025,017
Interest income	13,729	4,771
Foreign currency exchange loss, net	(6,525)	(20,368)
TOTAL REVENUE AND OTHER SUPPORT	5,737,137	5,137,925
EXPENSES:		
Salaries and benefits	2,769,725	2,456,709
Data center	512,785	540,092
Travel and entertainment	396,613	297,275
Depreciation	243,599	214,222
Professional fees	225,019	198,779
Other general and administrative expenses	218,048	168,571
Registration fees, related party (Note 3)	200,221	249,279
Rent	136,509	135,040
Advertising and marketing	93,879	102,860
Program initiatives	52,492	11,273
Consulting	47,770	45,000
Dues and subscriptions	47,273	38,311
Insurance	28,865	27,751
Bad Debt	8,963	27,094
TOTAL EXPENSES	4,981,761	4,512,256
CHANGE IN UNRESTRICTED NET ASSETS	755,379	625,669
NET ASSETS, BEGINNING OF YEAR	4,093,665	3,467,996
NET ASSETS, END OF YEAR	4,849,041	$4,093,665

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CrossRef completed 2013 in a strong financial position.

Revenue of $5,737,137 came in 3 percent over budget, and expenses of $4,981,761 were approximately 3.5 percent under budget, yielding an operating margin of 13 percent, about the same as in 2012. Both revenue and expenses were up over 2012: revenue was up 11 percent and expenses were up 10 percent. The 2013 year-end overall cash position of almost $2.8 million is more than sufficient to cover one quarter's operating expenses, in accordance with policy established by the Board of Directors. CrossRef continues to grow its programs and supporting staff while remaining securely close to budget. The year 2013 ended with a clean audit.

As in 2012, CrossCheck operated with a surplus, and for the first time, CrossMark paid for itself. Both FundRef and CrossRef Text and Data Mining are now live. The Board approved the recommendation of the Member & Fees Committee that there be no fees for member participation in either of these new services at this time. These two services are of direct benefit to funding agencies and the research community. Together, and as a backbone to CHORUS, they signal a significant broadening of constituencies directly engaged with CrossRef. This, coupled with the growing number of distinct programs offered by CrossRef, has led to new expense in a branding and outreach effort aimed at a stronger awareness and clearer identification of CrossRef itself as the provider of these distinct services. An overhaul of the CrossRef web site is part and parcel of this rebranding program, which spans 2013 and 2014.

Notably, the Board approved a Financial Reserve Policy in 2013 that called for establishing a Capital Reserve Fund of $1 million to be fully funded as soon as reasonably possible. The present fiscal health of CrossRef has enabled the Board to reach that goal sooner than expected, with full funding achieved as of the end of September 2014. And for the fifth year running, sound fiscal policy and excellent financial management by staff has enabled CrossRef to continue growth with no increase in dues or fees for members.

Bernard Rous, Treasurer

crossref

Text and Data Mining

INTRODUCING CROSSREF TEXT AND DATA MINING

Simplifying content mining for publishers and researchers.

During 2013, the PILA Board of Directors identified the need to rebrand CrossRef in a way that would communicate its central role in the scholarly communications community more effectively and represent both the function of CrossRef's services and their connection to the organization more clearly. CrossRef chose to work with the Aloft Group, a brand strategy and marketing communications agency. Aloft interviewed members of the CrossRef team and Board and conducted a survey of librarians, researchers and publishers to gauge the perception of CrossRef in the marketplace, producing a set of recommendations for implementation in 2015 that include a new visual identity and naming convention and a brand narrative or positioning statement based on CrossRef's defining attributes.

KEY PROJECTS FOR 2013/2014

The strategic roadmap developed at the July 2013 Board meeting and updated at subsequent meetings organizes CrossRef's current projects into nine key areas along a timeline that extends through the end of 2015.

- **Enhance the functionality of Multiple Resolution to accommodate the role of e-book aggregators**

- **Update the CrossRef reference linking system regularly to handle ongoing growth in activity**

- **Conduct a review of CrossRef's branding and implement indicated changes, including a complete update of the web site**

- **Launch CrossRef Text and Data Mining services to follow the successful CrossRef Prospect pilot**

- **Expand CrossRef's FundRef funding data service to support CHORUS, SHARE, and other scholarly communications initiatives**

- **Launch tools for small publishers that will help them extract references from PDFs and develop a partnership with Public Knowledge Project (PKP), originator of the Open Journal System (OJS) used by many smaller CrossRef member publishers**

- **Expand CrossRef's CrossMark publication record service**

- **Improve the plagiarism screening service, CrossCheck powered by iThenticate**

- **Increase international outreach and host international workshops, bringing "The CrossRef Experience" to participants who find attending the annual meeting difficult**

- **Develop new relationships with Sponsoring Entities that can represent the business and technical requirements of small CrossRef member publishers in countries throughout the world**

STRATEGIC INITIATIVES

Developing Trends

A growing consensus recognizes the value of linking between scholarly literature and information that lies outside it, and of tracking discussions of the literature that occur beyond traditional scholarly channels. CrossRef has long helped publishers assign persistent DOI links for "grey" literature such as working papers and conference proceedings. More recently, citation linking has been established within patent literature and for standards, and CrossRef's FundRef service now allows researchers and authors to associate funding information with published content for the benefit of constituencies including funders, policy makers and institutions, as well as the general public.

New vehicles for the citation of scholarly literature are proliferating, including online scholarly tools as well as social media services such as Facebook and Twitter. Wikipedia is the eighth largest referrer of DOI links to published research, particularly remarkable for the fact that only a small fraction of Wikipedia's references are DOI-enabled. In the year ahead, a major CrossRef initiative will focus on establishing persistent reference citations from content that sits outside the scholarly literature, and on broadening the ability to track DOI-enabled activity wherever it occurs.

ONGOING SERVICES

Usage of CrossCheck powered by iThenticate continues to grow at a rapid pace. Nearly 1.1 million documents were checked for duplication against CrossCheck's database of scholarly and web documents in 2013, compared with approximately 630,000 in 2012. The number is projected to approach 1.8 million in 2014. As of July 2014, 576 publishers were participating, with more than 110,000 titles indexed, and several of these publishers have announced plans to check all their submitted manuscripts.

The amount of update and publication record metadata collected for CrossMark hit a 2013 high point in October and then peaked in March and May of 2014, reflecting the activities of a number of larger publishers. As of July 2014, 43 publishers have signed up for the service, which allows researchers to ascertain easily whether a work has been updated and to find important non-bibliographic publication record information on publication history, funding, peer review, licensing and more. CrossRef is developing taxonomies for status updates and publication record information, in part to provide publishers with guidance as to what types of information they might wish to include in the CrossMark Records tab, and in part to clearly define and standardize status updates.

fundref

The number of publishers that have signed up for FundRef approximately doubled this year and the number of finders listed in the Funder Registry jumped from just over 4,000 to 7,300.

The number of publishers that have signed up for FundRef approximately doubled from July 2013 to July 2014, reaching 45, as did the number actually submitting funding data to CrossRef, which reached 19. In the same time frame, the number of funders listed in the Funder Registry increased from just over 4,000 to more than 7,300.

As of July 2014, publishers participating in the CrossRef Cited-by Linking service, which allows researchers to follow links from an article to subsequently published articles that cite it, account for approximately 40 percent of the DOIs in the CrossRef system. CrossRef now holds metadata for more than 22 million articles with references, and more than 27 million articles have at least one cited-by relationship; the total number of cited-by links has surpassed 405 million.

GOVERNANCE, STAFF AND INDUSTRY ACTIVITY

The PILA Board of Directors comprises 16 representatives, listed further on in this report and at www.crossref.org. At the 2013 Annual Member Meeting, the following individuals were elected to serve three-year terms: Chris Shillum, Elsevier; James Walker, IOP Publishing; Kathleen Keane, Johns Hopkins University Press; Kristen Fisher Ratan, PLOS; and Wim van der Stelt, Springer.

The 2013 Annual Member Meeting took place in Cambridge, Massachusetts, on November 13 with 150 members and industry professionals in attendance, the largest gathering to date. Heather Piwowar, cofounder of ImpactStory, delivered the keynote speech, "Building Skyscrapers with our Scholarship," on how developers are working with data to create structures that can elevate research. Other presenters included Kristen Fisher Ratan of PLOS, speaking on how agile development methodology applies to scholarly communications, and Walter Warnick of the U.S. Department of Energy (DOE) Office of Scientific and Technical Information (OSTI), on how CrossRef has changed the face of research, how its FundRef service contributes to the DOE's Public Access solution, and on the potential role of CHORUS in that solution. Randy S. Kiefer of CLOCKSS and Kate Wittenberg of PORTICO headed a panel discussion that defined digital archiving and explored the options by which CrossRef Member publishers can meet their obligations to arrange for archiving solutions.

cross check
Powered by iThenticate

576 publishers are now participating in the CrossCheck screening service. Nearly 1.1 million documents were checked for duplication against CrossCheck's database of scholarly and web documents in 2013.

The CrossRef staff grew in 2013/2014 with the addition of five members. In 2013, Joe Wass joined the Oxford office as R&D Programmer and Lindsay Russell joined in Lynnfield as Payroll and Benefits Administrator. In 2014, Penny Martin joined in Oxford as Office Administrator, and Christopher Cocci and Amy Kelley joined in Lynnfield as Staff Accountant and Operations Assistant, respectively.

Staff members continue their involvement in a wide range of industry organizations. Executive Director, Ed Pentz is currently co-chair of a National Information Standards Organization (NISO) working group that is defining standardization for access metadata. He continues to serve on the Main Committee of the UKSG (formerly the United Kingdom Serials Group), as a member of the UKSG Project TRANSFER Working Group, as Treasurer of the International DOI Foundation (IDF), and as Chair, ORCID Board of Directors.
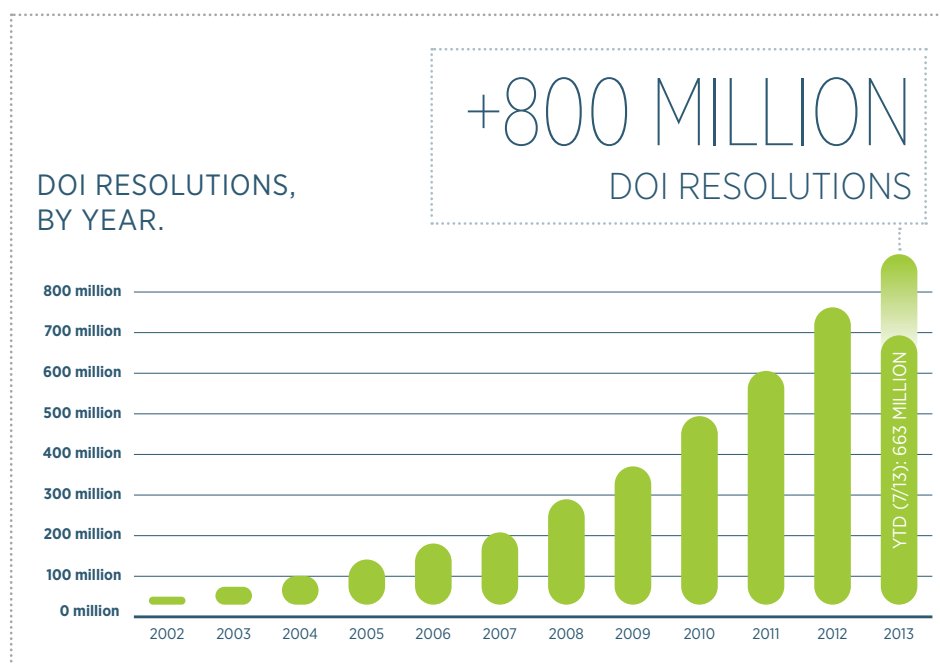
Geoffrey Bilder, Director of Strategic Initiatives, is an Editorial Board member of Learned Publishing. He also serves as a member of the Socio-cultural Issues Working Group of the Data Observation Network for Earth (DataONE) and as a member of the Technical Working Group of SHared Access Research Ecosystem (SHARE). Chuck Koscher, Director of Technology, speaks regularly at events hosted by such organizations as The Scientific Electronic Library Online (SciELO) in Brazil, Information Science and Technology Institute (ISTI) and eJournalPress. Carol Anne Meyer, Business Development and Marketing Manager, served as Past President of the Society for Scholarly Publishing (SSP) and continues as a member of both the Book Industry Study Group (BISG) Identifiers Committee and the American Association of Publishers Professional and Scholarly Publishing (AAP/PSP) Books Committee.

Lisa Hart, Senior Director of Finance and Operations, served on the SSP Finance Committee and has now joined its Audit Committee. Anna Tolwinska, Assistant Marketing Manager, co-chairs the SSP Marketing Committee. Karl Ward, Principal Engineer, sits on the STM Future Lab Committee, the CHORUS Technical Working Group, and the Advisory Group for FundRef. Product Manager Rachael Lammey serves on the NISO Journal Article Versions (JAV) Addendum Working Group.

DOI RESOLUTIONS, BY YEAR.

+800 MILLION DOI RESOLUTIONS

YTD (7/13): 663 MILLION

Year	Value
2002	~30 million
2003	~50 million
2004	~70 million
2005	~100 million
2006	~130 million
2007	~180 million
2008	~280 million
2009	~360 million
2010	~480 million
2011	~590 million
2012	~740 million
2013	~830 million

CROSSREF PARTICIPATES IN KEY INDUSTRY EVENTS AND CONFERENCES.
THE FOLLOWING LIST IS A SAMPLING OF EVENTS WHERE CROSSREF STAFF ENGAGED WITH A VARIETY OF STAKEHOLDERS IN 2013.

LIBRARIES

American Library Association (ALA)
Midwinter 2013, January 25–29,
Seattle, Washington

Medical Libraries Association (MLA)
May 3–8, Boston, Massachusetts

UKSG Annual Conference
April 8–10, Bournemouth, U.K.

Charleston Conference
November 6-9,
Charleston, South Carolina

RESEARCHERS

Science Online 2013
January 30–February 2,
Research Triangle, North Carolina

**National Information Communications
Technology Australia (NICTA)**
February 13, Canberra, Australia

**American Association for the
Advancement of Science (AAAS)**
February 14–18, Boston, Massachusetts

World Conference on Research Integrity
May 5–8, Montreal, Canada

4th Annual VIVO Conference
August 14–16, St. Louis, Missouri

DataOne All HandsMeeting
October 22–24, Albuquerque, New Mexico

SpotOn London
November 8–9, London, U.K.

PUBLISHERS

**Korean Association of Medical Journal
Editors**, March 28, Seoul, Korea

**Council of Science Editors (CSE)
Annual Meeting**
May 3–6, Montreal, Canada

**Society for Scholarly Publishing (SSP)
Annual Meeting**
June 5–7, San Francisco, California

**American Association of University
Presses (AAUP) Annual Meeting**
June 22–24, Boston, Massachusetts

**Public Knowledge Project (PKP) Scholarly
Publishing Conference 2013**
August 19–21, Mexico City, Mexico

**Association of Learned and Professional
Society Publishers (ALPSP) International
Conference**
September 11–13,
The Belfry, Birmingham, U.K.

**9th China Science Journal Development
Forum**
September 25–29, Hangzhou, China

**International Association of Scientific,
Technical and Medical Publishers (STM)
Annual Conference**
October 7, Frankfurt, Germany

SciELO15
October 22–25, Sao Paulo, Brazil

FUNDERS

Federal Demonstration Partnership (FDP)
January 28, Washington, D.C.

**CENDI Federal Scientific and Technical
Information Group**
May 9, Alexandria, Virginia

THE CROSSREF FAMILY OF SERVICES

cross ref
REFERENCE LINKING SERVICE

CITED**BY**

cross Check
Powered by iThenticate

CrossRef's™ collaborative reference linking service helps publishers provide affordable, reliable links, increasing usage and traffic to publications. This promotes the development and cooperative use of new and innovative technologies to speed and facilitate scholarly research.

CrossRef Cited-by Linking allows publishers to discover how their publications are being cited in other publications and to display that information to their readers.

CrossCheck™, a joint initiative between CrossRef and iParadigms, surpasses existing plagiarism screening tools by checking submissions against an authoritative and comprehensive database. The database includes full text scholarly and academic publications and web resources with high-quality scholarly content.

INTERESTING FACTS

Launched in 2000

Over 5,000 Members

Over 68 million DOIs

INTERESTING FACTS

Launched in 2004

357 participating publishers

Over 400 million cited-by links

INTERESTING FACTS

Launched in 2008

Over 600 publishers

More than 41.2 million documents in the CrossCheck database

crossref.org

crossref.org/citedby

crossref.org/crosscheck

CrossRef Metadata Services, or CMS, offers an easy-to-use suite of tools for authorized partners to collect metadata on a cross-publisher basis to streamline their own crawling, indexing, and linking services.

CrossMark

CrossMark™ is a simple way for publishers to mark authoritative versions of their published literature and to signal to researchers that publishers are committed to maintaining their scholarly content.

FundRef is a service from CrossRef that provides a standard way for publishers to record funding sources for published scholarly research, and a publicly available database that funders and other interested parties can search to retrieve this funding information.

CrossRef's latest service that provides a standard way for publishers to provide access to their content for the purpose of text and data mining.

INTERESTING FACTS

Over 68 million metadata records available via our OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting) interface

Over 41 affiliates participating

INTERESTING FACTS

Launched in April 2012

1 million CrossMark deposits made

14,000 status updates

45 publishers participating

INTERESTING FACTS

40 publishers participating

DOI deposits with funding metadata: 300,000

Unique funder names in the FundRef Registry: 7,500

INTERESTING FACTS

Launched in May 2014

Successful pilot launch included 11 charter organizations.

Publishers participating can now deposit full-text links in the metadata for their DOIs

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crossref.org/cms

crossref.org/crossmark

crossref.org/fundref

crossref.org/tdm

THE PEOPLE OF CROSSREF

OXFORD, UK OFFICE

Ed Pentz
Executive Director

Geoffrey Bilder
Director of Strategic Initiatives

Rachael Lammey
Product Manager

Penny Martin
Office Administrator

Kirsty Meddings
Product Manager

Karl Ward
Principal R&D Engineer

Joe Wass
R&D Programmer

LYNNFIELD, MA OFFICE

Technical Department

Chuck Koscher
Director of Technology

Patricia Feeney
Product Support Manager

Andrew Gilmartin
Senior Software Developer

Vaishali Patel
Technical Support Analyst

Tim Pickard
System Support Analyst/Administrator

Jon Stark
Software Developer

Mike Yalter
Software Developer

Finance & Operations Department

Lisa Hart
Director of Finance and Operations

Amy Bosworth
Administrative Assistant

Christopher Cocci
Staff Accountant

Paula Dwyer
Controller

Anne Hotchkiss
Accounts Receivable Coordinator

Amy Kelley
Operations Assistant

Lindsay Russell
Payroll and Benefits Administrator

Marketing Department

Carol Meyer
Business Development and Marketing Manager

Susan Collins
Member Services Coordinator

Anna Tolwinska
Assistant Marketing Manager

MEASURING CROSSREF'S GROWTH

LIBRARY MEMBERSHIP.

1,979
MEMBER LIBRARIES

Year	Value
2003	~150
2004	~500
2005	~1,000
2006	~1,200
2007	~1,300
2008	~1,500
2009	~1,600
2010	~1,700
2011	~1,850
2012	~2,000
2013	~2,050
2014	~1,979
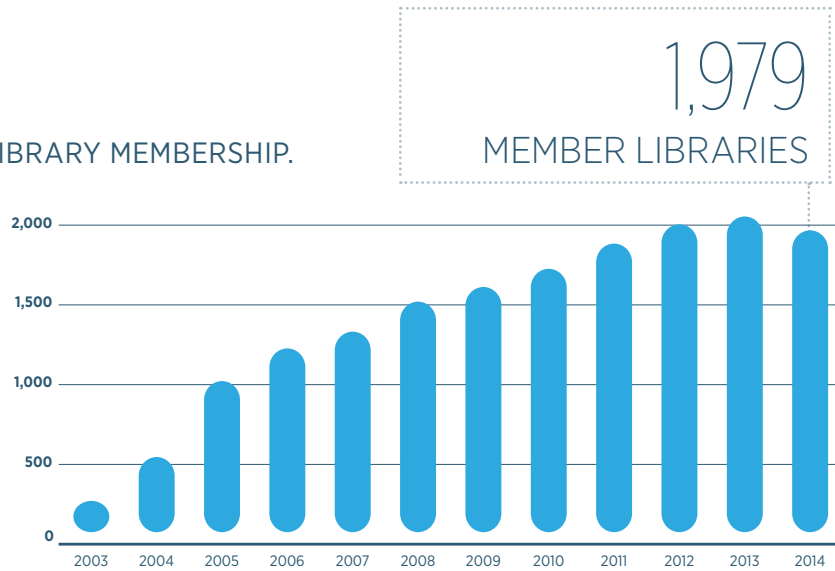
JOURNALS IN THE CROSSREF SYSTEM.

35,457
JOURNALS

Year	Value
2003	~9,500
2004	~11,500
2005	~14,500
2006	~16,000
2007	~20,500
2008	~22,500
2009	~22,000
2010	~24,000
2011	~27,500
2012	~29,500
2013	~32,500
2014	~35,457
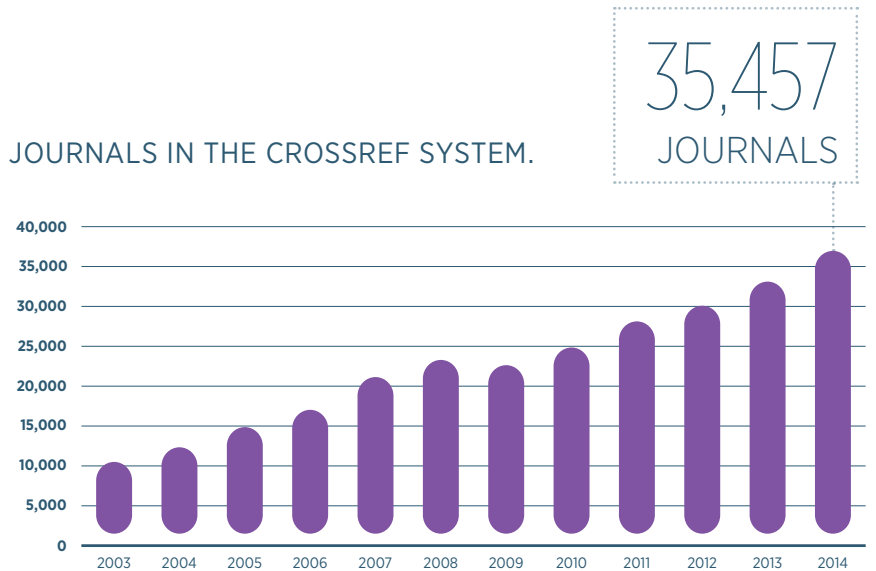
MONTHLY CROSSREF DOI RESOLUTIONS.

+68 MILLION
DOI RESOLUTIONS

Year	Value
2003	~5 million
2004	~10 million
2005	~17 million
2006	~22 million
2007	~29 million
2008	~33 million
2009	~38 million
2010	~43 million
2011	~50 million
2012	~56 million
2013	~60 million
2014	~68 million
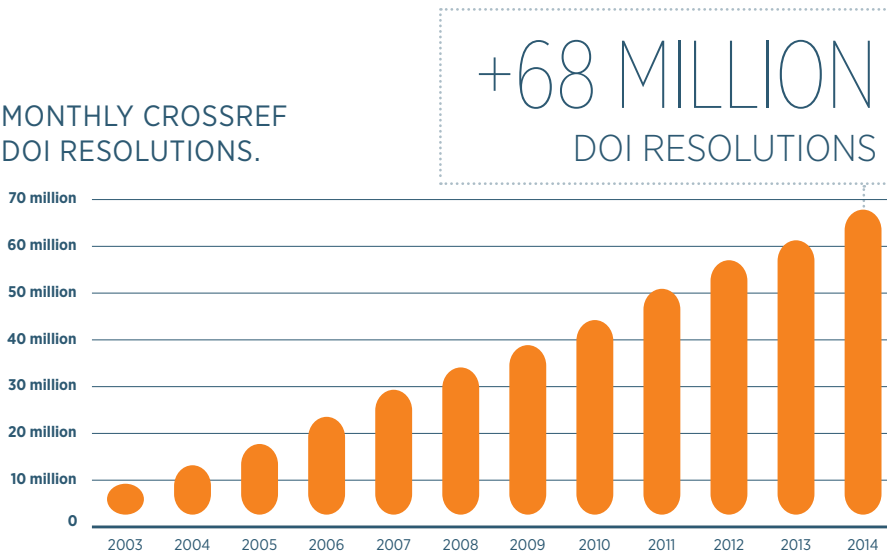
CROSSREF VOTING MEMBERS.

2,273
VOTING MEMBERS

Year	Value
2003	~200
2004	~250
2005	~300
2006	~400
2007	~400
2008	~550
2009	~700
2010	~900
2011	~1,150
2012	~1,500
2013	~1,700
2013	~1,650
2014	~2,273

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