

FOSTERING GLOBAL COLLABORATION IN SCHOLARLY COMMUNICATIONS



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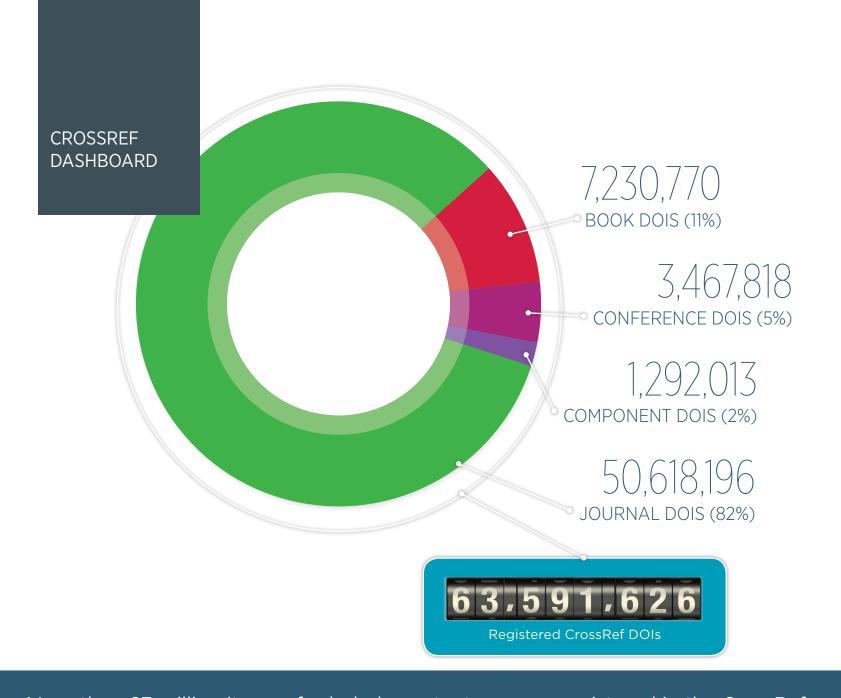
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More than 63 million items of scholarly content are now registered in the CrossRef system, including journal articles, conference proceedings, books and book chapters, reference entries, technical reports, standards, and data sets.



As the pace of change in scholarly publishing continues to accelerate, CrossRef is engaging with a wider group of stakeholders than ever before, going beyond our well-established role of providing services by which publishers enhance the value and discoverability of their offerings. FundRef,

LETTER FROM
THE EXECUTIVE
DIRECTOR

which launched in May 2013 as a service for connecting research funding sources with publications, is emerging as a vital resource for many organizations (not only publishers) in responding to the U.S. government's Office of Science and Technology Policy (OSTP) public access requirements. The work on FundRef was facilitated by very successful

relationships with four funding agencies. Another important recent development is the launch of the ORCID Registry in October 2012, and scholarly authors are now using the CrossRef Metadata Search interface to populate their ORCID profiles with records for their publications, an instance of individuals interacting directly with the CrossRef system to conduct discovery-type searches.

CrossRef continues to grow significantly. The current voting membership of 1,811 is up 27 percent from one year ago. There are now over 62 million content items registered in the CrossRef system, a nine percent increase over last year. Books continue to be the fastest-growing major content type, with more than 390,000 titles represented by 6.8 million CrossRef DOIs (the majority at the chapter level), up more than 30 percent from last year. The assignation of CrossRef DOIs to books promotes their discoverability and facilitates access to them, with readers able to view information on their availability through purchase and library options displayed by CrossRef's Multiple Resolution service.

International participation in CrossRef continues to increase, promoted over the past year by staff members' visits to members and affiliates around the world. Director of Strategic Initiatives Geoffrey Bilder traveled to Korea, Business Development and Marketing Manager Carol Anne Meyer to China, and I to Brazil. In Brazil, we are partnering with local organizations to facilitate administrative aspects of CrossRef participation.

We have close relationships with the Korea Institute of Science and Technology Information (KISTI) and the Korean Association of Medical Journal Editors (KAMJE), which function as sponsoring agents for local publishers wishing to join CrossRef. In Japan, we have a long-standing relationship with the Japan Science and Technology Agency (JST). JST is also a lead partner in the Japan Link Center (JaLC), a new DOI Registration Agency that CrossRef is working closely with. In China, we are in conversations with the two DOI Registration Agencies, China National Knowledge Infrastructure (CNKI) and The Institute of Scientific and Technical Information of China (ISTIC), exploring ways to build CrossRef membership. There is also rapid uptake of CrossRef in Eastern Europe, and in Serbia, the National Library is now operating a service that enables local publishers to join collectively.

We continue to focus on making CrossRef's services as easy to use as possible for smaller publishers, and Citation Deposit, a tool for extracting references from scholarly documents in PDF format, simplifies both the

implementation of outbound linking in journals and participation in Cited-by Linking considerably. Initially available on CrossRef Labs as the PDF-EXTRACT pilot service, Citation Deposit will soon be included in the Small Publisher Tools suite of resources.

Publisher uptake of the CrossCheck and CrossMark services is building strong momentum, underscoring the value they deliver. More than 500 publishers are now availing themselves of CrossCheck to screen submitted manuscripts for plagiarism, with usage more than doubling from 2011 to 2012. Twenty publishers have signed up for CrossMark since its April 2012 launch, depositing more than 520,000 assertions, or individual items of information regarding an article's publication. The launch of FundRef is expected to accelerate the uptake of CrossMark, which, for publishers participating in both services, automatically displays available funding information along with other publication metadata.

As Open Access (OA) gains traction through a variety of business models, including hybrid journals that mix OA articles with articles available through subscription, pay-per-view, or licensing, the lack of standardized access-status metadata at the article level has become increasingly problematic. I am currently co-chair (with Cameron Neylon of PLoS and Greg Tananbaum of ScholarNext) of a National Information Standards Organization (NISO) working

group that is defining standardization for access metadata, which will benefit funders, researchers, publishers, and authors alike. CrossRef is

well positioned to be an authoritative source for such metadata, with CrossMark an effective vehicle for displaying the information.

In the past few years, researchers have shown a growing interest in text and data mining. We have recently launched CrossRef Prospect

as a pilot project to give researchers ready access to published content for such purposes in a way that accords with publishers' terms and conditions.

Last September, CrossRef was honored as the winner of the ALPSP Award for Contribution to Scholarly Publishing 2012, a testament to all we have achieved together as a collaborative organization over more than 13 years of operation. For much of that time, CrossRef has focused on providing services that benefit publishers and improve their workflows, from our core reference linking system on through Cited-by Linking, CrossCheck, and CrossMark. We are now building on that foundation to engage directly with funders and researchers as well, taking care always to maintain our investment in the established CrossRef services on which the world of scholarly communication has come to depend.



and &

Edward N. Pentz, Executive Director

LETTER FROM THE CHAIR



## In the rapidly changing landscape

of scholarly communication, CrossRef continues to play an important part through both its own initiatives and its supporting role in others. The recent launch of FundRef has introduced funding agencies as a major new stakeholder group within CrossRef's scope of activities, and our active participation in ORCID has helped provide researchers with a system of unique personal identification that ensures proper recognition for their work. 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, and it is vital that we maintain those qualities as we move ahead. Whatever the future of scholarly publishing may be, it will require accurate metadata and a suite of supporting services, and CrossRef is uniquely positioned to provide both.

CrossRef's expanding role and innovative offerings are balanced by its exceptionally sound operational infrastructure and by the continued growth of its core linking service. It is heartening to see the steady rise in the number of CrossRef DOIs deposited in the system, particularly for books. At the same time, there remains much to be done to embed CrossRef metadata into the book ecosystem to the extent that it has been implemented for journals. Promoting book deposits remains a strategic priority for CrossRef, and this should help to offset the slight slowdown in revenue that we are beginning to see in archival journal deposits.

It is a testament to CrossRef's culture that as the staff has grown, the new members embody the same combination of creativity, technical competence, and operational excellence that has always defined them. It is encouraging that a relatively small organization can scale up these qualities and maintain its spirit as it grows in size and complexity.

I would like to recognize my fellow members of the Board of Directors for all the time and energy they contribute to CrossRef. Over the past year, we have collectively grappled with a number of challenging issues, not least of which is prioritizing the organization's focus on a range of strategic initiatives while allocating the proper resources to core activities. I would like to pay particular tribute to departing Board members Bob Campbell, who will retire later this year, and Howard Ratner, who has moved on from his tenure at Nature Publishing Group. As founding Board members, both have been involved with CrossRef from the start and have contributed in many ways to making it what it is today. We wish them the very best in the years ahead.

an Bannerman, Chair, Board of Directors

Whatever the future

brings, CrossRef

is committed to

providing a platform

that can deliver on

its promise.

# With the rewrite of the CrossRef system completed by mid-2012, the organization is now primarily in the mode of management and maintenance from

mid-2012, the organization is now primarily in the mode of management and maintenance from the technological perspective, with staff providing small modifications to both the system and the infrastructure to ensure optimal performance.

As CrossRef engages with a broadening range of stakeholders through initiatives like FundRef and the CrossRef Prospect pilot, this is an opportune time to consider how its technological foundation might be extended to support future activities. While the rewrite has improved performance considerably, its underlying technology and architecture are not fundamentally different from what had been in place for the previous decade, and they continue to provide a point-specific solution for CrossRef's core linking service and activities that are fairly closely aligned with it.

There are advanced technologies for data warehousing and manipulation that, if implemented, could lay the groundwork for offerings significantly different from those in CrossRef's current portfolio. In the rapidly changing environment of scholarly communications, it is not yet clear what these might be, but it is safe to say that there will be call for new tools and services both from new constituencies and from the publishing community CrossRef has always served. Whatever the future brings, CrossRef is committed to providing a platform that can deliver on its promise.

2M/D.

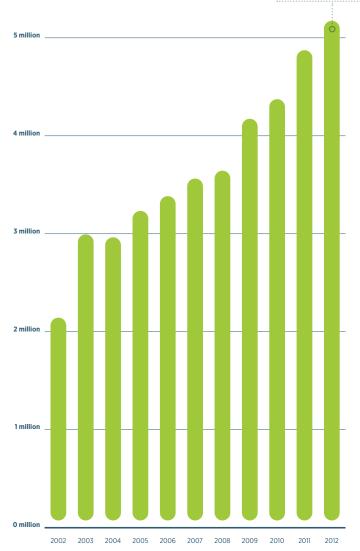
ON AVERAGE, OUR SERVERS PROCESS ABOUT 2 MILLION DOI RESOLUTIONS PER DAY.

REVENUE GROWTH BY YEAR
(MILLIONS)

5.10 MILLION

#### STATEMENT OF ACTIVITIES

YEARS ENDED DECEMBER 31, 2012 AND 2011



	2012	2011
REVENUE AND OTHER SUPPORT:		
Deposit fees	\$3,128,505	\$3,026,934
Member fees	2,025,017	1,851,161
Interest income	4,771	4,714
Loss on foreign exchange	(20,368)	(13,818)
Loss on disposal of property and equipment		(32,625)
TOTAL REVENUE AND OTHER SUPPORT	5,137,925	4,836,366
EXPENSES:		
Salaries and benefits	2,456,709	2,284,788
Data center	540,092	537,955
Travel and meetings	297,275	332,692
International DOI Foundation fees	249,279	435,549
Depreciation and amortization	214,222	193,043
Professional fees	198,779	225,265
Office and other	168,571	204,644
Rent	135,040	120,337
Advertising and marketing	102,860	95,762
Contractor Fees	45,000	69,471
Dues and subscriptions	38,311	34,091
Insurance	27,751	26,339
Bad debt	27,094	_
New initiatives	11,273	8,960
TOTAL EXPENSES	4,512,256	4,568,896
Change in unrestricted net assets	625,669	267,470
Unrestricted net assets, beginning of year	3,467,996	3,200,526
Unrestricted net assets, end of year	\$4,093,665	\$3,467,996



# CrossRef completed 2012 in a strong

financial position. Revenue of \$5,137,925 came in just over budget despite the delayed start of CrossMark, and expenses of \$4,512,256 were approximately seven percent under budget, yielding an operating margin of 12 percent. In a year of substantial growth, diversification, and investment, revenues were six percent over prior year and expenses

LETTER
FROM THE
TREASURER

were one percent under prior year. The fact that these results were close to budget reflects that the expansion was carefully planned and well executed. The overall cash position of just over

\$1.9 million (including a \$500,000 reserve) is sufficient to cover one quarter's operating expenses, in accordance with policy established by the Board of Directors. The year 2012 ended with another squeaky-clean audit.

The present fiscal health of CrossRef is all the more extraordinary when seen in the context of its rapid expansion of both programs and the staff resources necessary to develop and deliver them. CrossCheck is now firmly deployed as another important filter in scholarly publishing. CrossMark's functionality has been further developed, expanding the publisher's ability to display provenance and quality indicators to the user of each article. The FundRef Pilot was completed. To accomplish these initiatives while strengthening the core linking system and service, the number of full-time staff members doubled over the last five years. Accurate budgeting in an expansive period with burgeoning programs and a growing staff is notable; to achieve it while increasing a surplus for future CrossRef development testifies to an outstanding job of fiscal management by the CrossRef staff.

To manage increasing expenses, the CrossRef staff has trimmed costs in a number of ways. Negotiated agreements have cut IDF fees substantially, the effects of the 2011 system re-write and ownership of the code base have been fully realized in 2012 savings, and back-end administrative systems have been streamlined.

The extremely strong cash balance at the end of 2012 has enabled CrossRef to extend a \$300,000 loan to ORCID. With this loan and the initial six-month half-time tenure of Geoffrey Bilder as ORCID's Interim Technical Director, the publishing community has signaled just how vital ORCID's success is to CrossRef as a complementary enabling technology in the scholarly communications space.

The 2013 launch of FundRef and CrossRef's substantive support of ORCID are of particular interest in terms of CrossRef's engagement with its constituencies. Through these two services, which today are pure expense areas, CrossRef has broadened the communities it can directly serve. The services are designed to enable linking of research dollars with the creative scientists and scholars who receive them, and with their outputs. Funding bodies and research institutions, as well as areas of government interested in assessing the impact of research dollars on industry growth and social welfare, are primary beneficiaries of these services.

The timely development and deployment of FundRef has positioned CrossRef to do even more to serve new communities. As an enabling technology in the scholarly communications space, FundRef, drawing on CrossRef's nascent metadata search capabilities and its core DOI linking service, can be utilized in the coming year by external initiatives such as CHORUS.

There is a growth trajectory for successful organizations like CrossRef. As they increase in size, complexity, and breadth of service, staff members must play greater decision-making roles relative to the Board of Directors, whose function perforce is elevated to general direction setting and policy making. CrossRef is fortunate to have staff of the highest quality.

Bernard Rous, Treasurer

### **INTRODUCING FUNDREF.**

Forging the link between research funding and the resulting publications..



REVIEW
OF THE
ORGANIZATION

In 2012, the PILA Board of Directors changed its meeting schedule from four per year to three, lengthening the March meeting to a day and a half (to match the July meeting), maintaining the one-day meeting that follows the Annual Meeting in November, and eliminating the one-day January meeting. The Board has found that this allocation of time affords a more effective discussion of issues and strategies.

The July meeting is given over to developing a strategic roadmap that is updated at subsequent meetings and provides focus and direction to CrossRef's work. The latest roadmap organizes CrossRef's projects and activities into 11 key areas along a timeline that extends through the end of 2014.

#### **KEY PROJECTS FOR 2013/2014**

#### **Ongoing Core Projects and Services**

- O Improve services around CrossRef DOIs assigned to books
- O Improve feedback on metadata quality
- O Provide ongoing enhancements to the CrossRef system
- Develop additional policies to ensure CrossRef's long-term organizational persistence
- Promote ongoing staff engagement with the scholarly communications industry
- O Continue to support ORCID
- Plan a regular cycle of new features for the CrossCheck service and review its fee structure
- Ocontinue CrossRef's international membership outreach efforts through partnerships

#### **Additional Activities**

- Increase uptake of the CrossMark service
- Increase uptake of the FundRef service, further develop the Funder Registry, and provide additional related services
- Clarify the CrossRef brand message, working with an external vendor
- Ocontinue experiments around implementing citation linking in patent literature
- Continue CrossRef's collaboration with DataCite and other efforts around the integration of data citation into scholarly literature
- O Explore CrossRef Prospect as a text and data mining pilot
- Launch production version of the new tool for extracting references from PDFs

#### STRATEGIC INITIATIVES

CrossRef, which began as a business-to-business venture to enable citation linking among publishers, has now begun to interact with a significantly broader group of stakeholders. FundRef, launched in May 2013, brings funding agencies the ability to track the research supported by their grants, while both CrossMark and CrossRef Prospect (a text and data mining pilot project) are researcher-facing tools.

Since 2009, CrossRef Labs has been a testing ground for new tools and projects created in response to emerging trends in scholarly communications, and a number of them now provide the foundation for new CrossRef offerings. By way of example, FundRef and CrossMark are enabled by CrossRef Metadata Search (now listed under Experiments at http://labs.crossref.org/), while CrossRef Prospect would not be possible had CrossRef not collaborated with the International DOI Foundation (IDF) and the Corporation for National Research Initiatives (CNRI) to implement "content negotiation" as a standard way of querying a URL for machine-readable data.

#### **FundRef**

In February 2013, three months before the launch of FundRef, the U. S. government's Office of Science and Technology Policy (OSTP) issued a new set of requirements intended to expand access to the published results of federally funded research. CrossRef has issued a statement of support for the use of FundRef by organizations responding to those requirements by transparently tracking the correlation between their funding and the resulting publications. CrossRef is committed to promoting and facilitating the service's use by organizations and initiatives everywhere, and maintains the FundRef Advisory Group, consisting of funders and member publishers, to help guide its efforts.

In addition to providing a launching pad for projects that can blossom into production services, CrossRef Labs also serves as a vehicle for rapid response to issues identified by user feedback. With FundRef, some member publishers have encountered barriers to submitting their funding metadata for backfile publications because of the difficulty of matching their internal funder identifiers to the standard FundRef identifiers, and because of inconsistencies in their data. Using the experimental FundRef Reconciliation Service on CrossRef Labs, these publishers can convert bulk records into a consistent format for ready mapping to the FundRef Registry. Another CrossRef Labs offering, the FundRef Widget, provides open-source sample code for a tool that publishers can integrate with their manuscript tracking systems so that authors can easily deposit funding information for their submissions.

#### CrossRef Prospect

Now in pilot phase, CrossRef Prospect will provide researchers with a standard interface through which they can access published content for text and data mining purposes in a way that meets publishers' access requirements.

Publishers fall into three categories with regards to text and data mining of their content: Open Access (having no access restrictions), those requiring a regular subscription for access, and those requiring a subscription plus additional licensing. The Prospect License Registry will provide a repository where publishers can register such licenses, with a mechanism that allows researchers to review them and receive keys or tokens for access upon acceptance of the terms.



The FundRef Widget, provides open-source sample code for a tool that publishers can integrate with their manuscript tracking systems so that authors can easily deposit funding information for their submissions.

#### **Patent Literature**

For the past two years, CrossRef has been collaborating with the Australia-based Cambia, creator of The Lens, to establish citation linking within patent literature, allowing readers of patents to navigate from citations of scholarly literature to the items cited, and vice versa. The Lens, an online tool for searching a large body of international patent documents, is in the process of migrating to a new platform, and CrossRef staff traveled to Cambia's facility in February 2013 to help ensure the ongoing flow of information on citations in patents to CrossRef, and to advance a pilot under way that allows a researcher to select a CrossRef DOI and see which patents in The Lens's database cite it.

The strategic goal of the collaboration is to demonstrate the value of linking within patent literature in a way that encourages international patent offices to adopt the assignment of DOIs within the patents they issue. This developing interaction with patent offices is another example of CrossRef's engagement with a wider range of constituencies.

#### Altmetrics, Wikipedia

As blogs, social media, and reference management services like Mendeley, CiteULike, and Zotero play a greater role in scholarly communications, altmetrics (for "alternative metrics") is emerging as a movement to measure the impact of content by tracking its mention, bookmarking, and citation within these new vehicles. Altmetrics also hold the promise of bringing a more granular and timely gauge of influence than Impact Factors, applying not just to a journal at the title level but to individual articles and available without the lag of Impact Factor publication.

CrossRef strives to promote the implementation of CrossRef DOIs in these channels, and provides application-programming interfaces

(APIs) with which interested parties can build tools that facilitate DOI-enabled citation.

CrossRef also maintains a dialogue with the Wikimedia Foundation and Wikipedia, which is growing in importance as a venue for scholarly content. Although Wikipedia calls for citation and for the use of DOIs in its entries, the usage is not consistent and the tools provided for implementation not optimal, so CrossRef is encouraging the uptake of its APIs here as well.

#### **ONGOING SERVICES**

#### CrossMark

Twenty publishers have signed up for CrossMark since its April 2012 launch, depositing more than 100,000 content items and more than 520,000 "assertions," which are optional non-bibliographic metadata records, such as type of peer review used, copyright and licensing terms, use of the CrossCheck screening service, and so forth. The launch of FundRef is expected to give CrossMark additional traction, since CrossMark will display funding information deposited by publishers who participate in both services.

The CrossMark Advisory Group, comprising a mix of participants and those intending to participate, provides guidance on marketing and implementing the service.

#### CrossCheck

More than 500 publishers are now participating in the CrossCheck screening service. The number of documents checked from January through May 2013 was 382,625, an increase of 64 percent over the same period in 2012. Within the iThenticate system that powers CrossCheck, the



More than 500 publishers are now participating in the CrossCheck screening service. The number of documents checked from January through May 2013 was 382,625, an increase of 64 percent over the same period in 2012.

Document Viewer, has now been launched with increased file-size capacity, print and download capability, and the ability to exclude matches below a selected number of words from its reports. Additional features will become available later in 2013.

The CrossRef staff continues to promote the uptake of CrossCheck, and to provide instructional support for its use.

**DOI** Developments

In April 2013, The
International DOI
Foundation (IDF)
launched a new logo as
part of a brand identity
campaign intended to
help differentiate it from
its member organizations
(such as CrossRef), which
offer a variety of DOIbased services.

IDF now recognizes 10 DOI Registration Agencies, with the recent addition of the Japan Link Center (JaLC) and China National Knowledge Infrastructure (CNKI), which joins The Institute of Scientific and

Technical Information of China (ISTIC) to become the second Chinese Registration Agency.

#### GOVERNANCE, STAFF, AND INDUSTRY ACTIVITY

The PILA Board of Directors comprises 16 representatives, listed on page 20 of this report and at www.crossref.org. At the 2012 Annual Member Meeting, five Directors were re-elected to serve three-year terms:

Ian Bannerman, Informa; Bernard Rous, Association for Computing Machinery; Ahmed Hindawi, Hindawi; Robert Campbell, John Wiley & Sons, Inc.; and Carol Richman, SAGE; Sven Fund, Walter de Gruyter, is serving as the replacement for Rebecca Simon, University of California Press, with the term to expire in 2014.

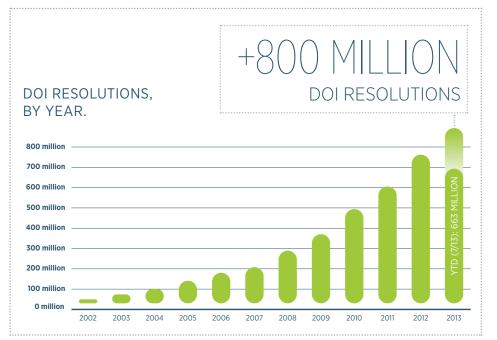
The 2012 Annual Member Meeting was held in London, U.K., on November 13–14, with nearly 150 members and industry professionals

attending presentations on the role of ORCID in the research community, by Laure Haak of ORCID; on Internet archiving, by Jason Scott of the Archive Team; on FundRef, by Fred Dylla of the American Institute of Physics (AIP) and Kevin Dolby of the Wellcome Trust; and on plagiarism from the editor's perspective, by Virginia Barbour of PLOS and the Committee on Publications Ethics (COPE).

The CrossRef staff in Oxford grew in 2012/2013 with the addition of Rachael Lammey, Product Manager, who had been filling in during the maternity leave of Product Manager Kirsty Meddings; Rachael joined on

a permanent basis upon Kirsty's return. In Lynnfield, Jennifer Rogers came on board as Administrative Assistant in February 2013.

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



as Research Officer 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* and a member of the Socio-cultural Issues Working Group of the Data Observation Network for Earth (DataONE). Chuck Koscher, Director of Technology, stepped down from the National Information Standards Organization (NISO) Board of Directors upon the expiration of his term at the end of July 2013, in accordance NISO bylaws, and his work with the NISO/NFAIS (National Federation of Advanced Information Services) Supplemental Journal Article Materials Technical Working Group has concluded with the group's publication of its recommendations.

Carol Meyer, Business Development and Marketing Manager, serves as Past President of the Society for Scholarly Publishing (SSP) and 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, Director of Finance and Operations serves on the SSP Finance Committee and Anna Tolwinska, Assistant Marketing Manager, co-chairs its Marketing Committee.

Karl Ward, R&D Programmer, sits on the Professional Development Committee of The Association of Learned and Professional Society Publishers (ALPSP). Product Managers Rachael Lammey and Kirsty Meddings serve respectively on the NISO Journal Article Versions Addendum Working Group and the UKSG Marketing Subcommittee, and Patricia Feeney, Product Support Manager, was a member of the NISO Recommended Practices for the Presentation and Identification of E-Journals (PIE-J) Working Group, whose work concluded with the publication of NISO RP-16-2013, *PIE-J: The Presentation & Identification of E-Journals*, in March 2013.

### CROSSREF PARTICIPATES IN KEY INDUSTRY EVENTS AND CONFERENCES.

THE FOLLOWING ARE REPRESENTATIVE APPEARANCES FROM 2012.

### PRESENTATIONS ON CROSSMARK:

AAP PSP Annual Meeting 2012

Medical Libraries Association (MLA) Meeting 2012

VIVO Conference 2012

COPE North American Seminar and Forum 2012

EASE Annual Meeting 2012

### PRESENTATIONS ON CROSSCHECK:

Council of Science Editors Webinar 2012

STM E-Production Seminar 2012

CrossCheck User Group Meeting at the 5th International Plagiarism Conference

EASE Annual Meeting 2012

Editorial Manager European User Group Meeting 2012

# PRESENTATIONS FOR GLOBAL PUBLISHING MEMBERS:

II EUSEER - 2012 (Encontro Nacional de Usuários do SEER), Brasilia, Brazil

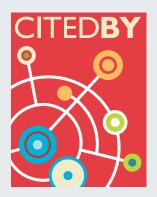
Beijing Book Fair 2012

### PRESENTATIONS ON ORCID:

STM Innovations Seminars 2012

### THE CROSSREF FAMILY OF SERVICES.







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 63 million DOIs

Over 4,500 publishers and societies represented

#### INTERESTING FACTS

Launched in 2004

326 participating publishers

Over 350 million cited-by links

#### INTERESTING FACTS

Launched in 2008

Over 500 publishers

More than 38 million documents in the CrossCheck database













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™ 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.

#### INTERESTING FACTS

Over 63 million metadata records available via our OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting) interface

Over 35 affiliates participating

#### INTERESTING FACTS

Launched in April 2012 270,000 CrossMark deposits made 2,737 updates 176 FundRef records

24 publishers participating



Publishers signed up: 25

DOI deposits with funding metadata: 42,496

Unique funder names in the FundRef Registry: 4,785







CROSSREF QUERY

**ACCELRYS** 

www.symyx.com

**ARTICLE ONE PARTNERS, LLC** www.articleonepartners.com

ATLAS CO, LTD.

www.atlas.jp

BEIJING MAGTECH CO. www.magtech.com.cn

**BIO-RAD LABORATORIES, INC.** 

www.bio-rad.com

**BOWKER** 

www.bowker.com

**CADMUS COMMUNICATIONS** 

www.cadmus.com

**CERN** 

www.cern.ch

**CLOCKSS** 

www.clockss.org

CNPa

www.cnpq.br

DATA CONVERSION LABORATORY

www.dclab.com

**DECHEMA** 

www.dechema.de

**EBSCO PUBLISHING** 

www.ebsco.com

ENERGY TECHNOLOGY DATA EXCHANGE

www.etde.org

**EUROPEAN PATENT OFFICE** 

www.epo.org

**EXPERT PUBLISHING LLC** 

www.expub.com

**FIZ KARLSRUHE** 

www.fiz-karlsruhe.de

FRAUNHOFER GESELLSCHAFT

www.irb.fraunhofer.de

**IFIS PUBLISHING** 

www.ifis.org

**INERA** 

www.inera.com

**INFORMATION EXPRESS** 

(reviews.com)

www.reviews.com www.ieonline.com

**INFOTRIEVE** 

www.infotrieve.com

INTEGRA SOFTWARE SERVICES,

PVT. LTD.

www.integra.co.in

INTERNATIONAL ATOMIC

**ENERGY AGENCY** 

www.iaea.org

JAPAN MEDICAL ABSTRACTS

SOCIETY (JAMAS) www.jamas.or.jp

JAPAN SCIENCE AND

TECHNOLOGY AGENCY (JST) www.jst.go.jp

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**NETHERLANDS** 

www.kb.nl

**MEKENTOSJ BV** 

www.mekentosj.com

**MENDELEY** 

www.mendeley.com

**NATIONAL CENTER FOR PTSD** 

www.ncptsd.org

NATIONAL RESEARCH

INFORMATION CENTER

ORCID

www.orcid.org

**PALGRAVE MACMILLAN** 

www.palgrave.com

**PORTICO** 

www.portico.org

PROQUEST INFORMATION & LEARNING

www.proquest.com

**PUBGET** 

www.pubget.com

**REED TECHNOLOGY** 

www.reedtech.com

SCIENCE CHECK

www.sciencecheck.org

**SEED MEDIA** 

www.seedmediagroup.com

**SEMPERTOOL** 

www.sempertool.dk

**SERIALS SOLUTIONS** 

www.serialssolutions.com

SYMPLECTIC LTD.

www.symplectic.co.uk

THE ARCTIC INSTITUE OF NORTH

**AMERICA** 

www.ucalgary.ca/aina

THE CAMBRIDGE CRYSTALLOGRAPHIC DATA

CENTRE

www.ccdc.cam.ac.uk

THE CHARLESWORTH GROUP

www.charlesworth.com

THE SHERIDAN GROUP

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