Annual Report of the Publications Board

For the Period July 1, 2014 – June 30, 2015

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I.   Strategic Vision

The Publications Board seeks to maintain and strengthen ACM's position as the preferred publisher of computing research and to become a leading provider of advanced level information and services for the broader computing industry. The Board also seeks to maintain and strengthen ACM's position as the principal curator and steward of publication data for the field.

To achieve these goals, ACM needs to (1) maintain and strengthen the quality of its current publication portfolio, (2) accelerate the growth of its program into new areas of computing and established areas where ACM has not historically focused in order to provide a wider range of affordable high-quality publication venues for both the research and practitioner communities, (3) establish itself as a leader in publication technology and innovation with new products and services for the community, and lastly to (4) continuing taking a leadership role in driving publishing industry innovation for the benefit of the broader scientific community.

Realizing the above goals will not be easy, as the motivation for change is not universally apparent and accepted. ACM has experienced an unprecedented period of growth and prosperity for the last two decades. Membership is at an all-time high, ACM's financial position is secure, ACM's longstanding publication platform, the *ACM Digital Library*, continues to grow in both revenue and reach, and ACM's conferences continue to maintain their positions as the most respected in the field. It is both reasonable and appropriate to say that ACM is experiencing its strongest and most successful period in recent history.

Nevertheless, over the past decade ACM has experienced an increasing level of pressure to make its publications more freely accessible to the broader community. This pressure has bubbled up from within the scientific and research library communities and over the past five years has started to trickle down from governments around the world in the form of Open Access Mandates for funded research. It is widely believed within the scholarly publishing industry that this trend will continue and all scholarly journal and conference publishers will continue to feel increasing pressure to make their content more freely available, so while ACM, in particular, continues to see growth from the sale of its publications to the library community, the general consensus is that such growth is unsustainable over the next 10-15 years, and it is an imperative for ACM to identify alternative models for its current and future publication program. Identifying new models is particularly important for ACM, since it has such a strong financial dependency on the single business model of selling *Digital Library* subscriptions to academic libraries, so the need to experiment with new models and diversify its publication income stream are an increasing priority for the ACM Publications Board.

At the same time, the market for computing professionals in industry has experienced widespread growth and there has been a virtual explosion in the number of information services providers, and publishers delivering content to those working in the computing industry. This trend has created a glut of low quality content and an increasing need for "trusted brands", such as ACM, to provide relevant practical content for this community. And especially for those working at the top of their organizations and respective fields, the need for high-quality trusted information to assist decision-making and performance on the job has never been more valuable. Indeed, ACM's membership now includes more practitioners working in industry than ever before and there is a growing expectation that ACM can and will provide content and services that are targeted and relevant for their needs. ACM has done this in a limited way, but will need to do this on a much larger scale to achieve its goal of being a leading information and services provider for those working in industry.

To achieve its goals as a curator, the Board is committed to a) maintaining a sustainable distribution model for ACM content, b) developing a comprehensive bibliographic database for quality publications within the field of computing, and c) developing useful services around this data.

The Publications Board has a three-pronged approach to achieve these overall goals.

1. Aggressively developing the highest-quality content within the *ACM Digital Library* (DL).

2. Ensuring comprehensive coverage of top-tier non-ACM publications in ACM's *Guide to Computing Literature,* which, while bundled with the DL, is freely accessible to the community.

3. Continually improving the experience for authors and readers.

II. Basic Information

A.   Members of the Publications Board

A list of members of the Publications Board during FY 2015 is given in Table 1.

Two new members were appointed to the Board during FY2015:

- Anne Condon (University of British Columbia) was appointed and serves as co-chair of the Assessment and Search Committee.
- Alex Wade (Microsoft Research) was appointed chair of the Technology Committee.

There were two resignations in FY2015:

- Pat Sabosik resigned due personal reasons.
- Alain Chenais resigned due to other obligations.

B.   Publications Board Operations

The Publications Board conducts its business with monthly conference calls along with two 1.5-to-2 day face-to-face meetings each year. In addition, the co-chairs and HQ staff

hold a monthly planning call. Urgent issues are dealt with via email discussion and vote. The Publications Board has started a practice of inviting 12–15 Editors-in-Chief to one of its annual face-to-face meetings (dedicating a full day of its Fall meeting to issues of particular interest to Editors-in-Chief).

This practice has been extremely successful, helping demystify the processes through which publications policies are developed, getting significant input on issues the Publications Board is addressing, raising new issues we should be addressing, providing peer support to EiCs, and building relationships between EiCs and Publications volunteers and staff. We are considering expanding this practice to hold a joint meeting with conference leadership from the SIGs in the future.

Because of the increased activity, the growing number of projects, and the desire to regularly invite selected groups to a Board meeting (i.e., the EiCs, SIG leadership, members of standing committees), the Board added a third face-to-face meeting to occur sometime early in the year (January or February). With this addition, the Board will have three face-to-face meetings: January/February, June (to coincide with ACM Awards Banquet and Council Meeting), and September/October.

Jack Davidson served as Information Director. Activities this year consisted of: providing liaison between volunteer Information Directors and ACM Staff; and informing new Editors-in-Chief and journal Information Directors about their responsibilities with respect to journal web sites.

Table 1. *Members of the ACM Publications Board with Roles and Appointment Dates*

Ronald Boisvert *(NIST)* *Chair, DL Committee*	Original appointment: 7/1/97 – 6/30/00 Vice Chair for Electronic Publishing: 5/8/00– Reappointed: 7/1/00 – 6/30/03 Reappointed: 7/1/03 – 6/30/06 Co-Chair: 1/1/05 – 6/30/07 Reappointed Co-Chair 7/1/07 – 6/30/10 Reappointed Co-Chair 7/1/10 – 6/30/13 Appointed as member 7/1/13 – 6/30/14
Anne Condon *(University of British Columbia)* *Co-chair, Assessment & Search*	Original appointment: 06/01/2015 – 05/31/18
Jack W. Davidson *(U Virginia)*	SGB Liaison: 4/1/07 – 06/30/10 Appointed Co-Chair 7/1/10 – 6/30/13 Reappointed as Co-Chair 7/1/2013 – 6/30/16
Nikil Dutt *(UC Irvine)* *Chair, New Pubs Committee*	Original appointment: 7/1/2008 – 6/30/2011 Reappointed: 7/1/11 – 6/30/14
Roch Guerin *(Washington U)* *Chair, Conferences Committee*	Original Appointment 3/1/2013 – 2/29/2016
Carol Hutchins *(NYU)*	Original appointment: 1/1/97 – 12/31/02 Reappointed: 1/1/03 – 12/31/05 Term extended 1/1/06 – 12/31/06 Term extended 1/1/07 – 12/31/10

	Term extended 1/1/11 – 12/31/13
	Term extended 1/1/14 – 12/31/14
Yanni Ioannidis *(University of Athens)* *SGB Publications Advisor*	Original appointment: 7/1/2014 – 6/30/2016
Joseph Konstan *(U Minn)*	SGB Liaison: 07/1/10 – 06/30/13 Appointed Co-Chair 07/1/2013 – 06/30/16
Catherine C. McGeoch *(Amherst College)* *Chair, Ethics/Plagiarism Comm.*	Original Appointment: 8/15/09 – 8/14/12 Reappointed: 1/1/2013 –12/31/2015
M. Tamer Özsu *(U Waterloo)*	SGB Liaison: 12/01/02 – 11/30/04 Appointed regular member: 12/01/04 – 11/30/07 Appointed Vice Chair for New Publications, 7/1/07 – 06/20/13 Reappointed: 7/1/10 – 6/30/13
Pat Sabosik *(Elm City Consulting)* *Chair, Technology Committee*	Original appointment: 8/1/2014 – 7/31/2017 Resigned 02/2014 due to illness in family.
Mary Lou Soffa *(U Virginia)* *Chair, Journal Search and* *Assessment Committee*	Original appointment: 02/15/05 – 02/14/08 Term extended to 02/15/09 Reappointed 02/16/09 – 2/15/12 Term extended 2/16/2012 – 12/31/2015
Alexander Wade *(Microsoft Research)* *Chair, Technology Committee*	Original appointment: 05/01/15 – 04/30/18

III.   ACM Publications Portfolio

ACM is currently the publisher of 83 active periodicals, including 43 journals and transactions, 8 magazines, 32 newsletters, and a new series of advanced-level books called ACM Books. During FY 2015, ACM added 448 volumes of conference and related workshop proceedings to its portfolio. The growth included 113 volumes added to ACM's *International Conference Proceedings Series (ICPS)*, a significant increase over FY 2014.
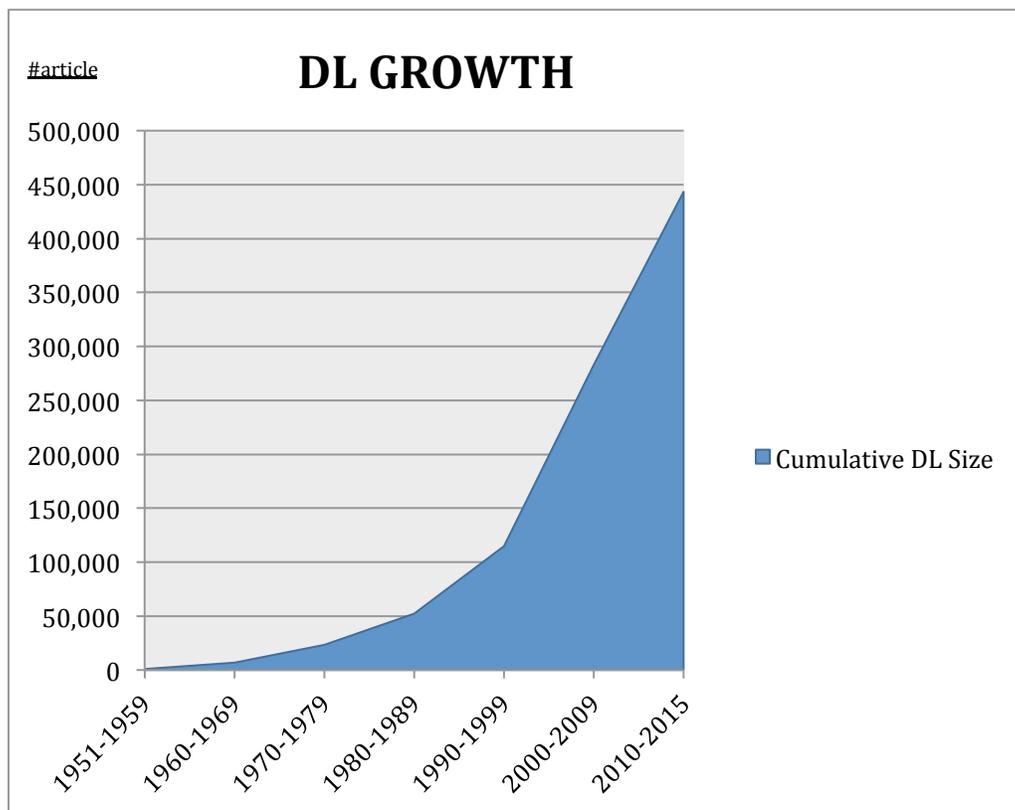
IV.   ACM Digital Library

The centerpiece of ACM Publications is the ACM Digital Library (DL). The DL provides the primary access and distribution mechanism for all ACM publications, and hosts another 10 periodicals and a set of conference proceedings via agreements with third parties. (For example, ACM distributes VLDB publications.)

With an estimated 5 million users worldwide, ACM's DL is widely and easily available as a resource to both researchers and practitioners. In particular, it is now available at some 2,800 institutions in 190 countries. The high respect for ACM publications, as well as ACM's low cost pricing, has led to a 98% institutional renewal rate. An additional 31,000 individual

subscribers in 196 countries have access to full-text content. This wide availability has led to high volume use, with more than 20 million full-text downloads during the last year. The reach of the DL extends well past the subscriber base; an estimated 5 million distinct visitors annually use the DL's free discovery and linking service, open metadata, free metrics and author and institutional profiles.

During FY 2015, 26,000 full-text articles were added to the ACM DL, bringing ACM's total holdings to 443,000 articles. The historical growth of article holdings is illustrated in Fig. 1.

Figure 1. Cumulative article holdings in the ACM DL by year. The current total is 443,000 articles, 26,000 of which were added in FY2015.

ACM's Guide to Computing Literature is integrated with the ACM Digital Library, providing an increasingly comprehensive and freely available index to the top-tier literature of computing. More than 76,000 works were added to the bibliographic database in FY2015, bringing the total Guide coverage to 2.1 million works. Capturing article references in the database is important, because these references are necessary to develop robust citation statistics. ACM continues to expand the number of articles in which this data is captured.

Recent growth is as follows:

Year	Total References	Resolved in Guide
2008	6.3M	2.2M
2009	7.8M	2.8M
2010	9.8M	3.4M
2011	13.1M	4.7M
2012	16.8M	6.0M
2013	18.9M	6.7M
2014	20.8M	8.4M
2015	23.5M	9.2M

The primary business model for the *ACM Digital Library* remains selling access to the institutional library market (i.e., universities, government, and corporations). Despite the longer term risks related to Open Access, selling subscriptions to libraries remains a healthy and stable near term revenue stream (5–7 years) for ACM and its publication program, although as stated above it is expected that there will be increasing pressure on the library subscription model itself and this will likely impact ACM's current model for selling the *ACM Digital Library* unless ACM evolves the model during this period.

Pricing has been an important consideration for ACM and its customers, and in general ACM continues to maintain its position as a low-cost, high-quality provider. With that said, some work remains to be done to ensure that ACM's customers receive good value in relation to their ACM licenses. It is reasonable to say that ACM serves two distinct user bases. The first are those individuals at top-tier research institutions who are both consumers and researchers of ACM's publications. These individuals and their institutions tend to be highly prolific in the field of computing, downloading thousands of articles each year and authoring dozens or hundreds of articles each year with ACM. There is approximately 500–1000 such institutions subscribing to the ACM Digital Library. The second user base consists of individuals at middle to low tier institutions who are primarily consumers of ACM research publications and ACM magazines. Computer Science is not a primary focus at their institutions and both the number of article downloads (hundreds) and articles authored (single digits or less) out of these institutions is minimal. In the future, ACM needs to ensure that pricing for this second category of customer more accurately reflects the value they are receiving from ACM.

It is also worth noting that price increases account for a smaller percentage of overall revenue growth and revenue continues to increase year on year primarily due to the identification of new institutional customers across all market segments, including academic, government, and corporate markets, and the introduction of new publication products that can be sold to the market, such as the new ACM Books series.

Like all scholarly publishers, ACM continues to evolve its business model and over the past fiscal year has made improvements to its tier-based pricing structure, made changes to its

international network of subscription agencies selling the ACM Digital Library on behalf of ACM, started selling the new ACM Books series, and expanded its ACM DL marketing efforts in developing countries around the world, primarily in Latin America, Eastern Europe, Southeast Asia, and Africa.

In general, there continues to be some opportunity for growth in the academic market over the next 5–7 years through national licensing deals and institutional sales via library consortia, but the greater growth opportunity exists in the corporate market, where ACM has a relatively small penetration in comparison to IEEE, Springer, and Elsevier (its main competitors in the journals, books, and conference markets). Our main challenge here is developing a significant amount of new high-quality content and services for the practitioner market as the platform for such revenue growth. While end users in industry do value content in the ACM Digital Library, much of that content is of primary interest to researchers and the number of full-text downloads from industry remains a very small percentage of overall usage of the ACM DL. The ACM Publications Board is starting to address these challenges through the charges of its various committees, including the Digital Library committee, Technology committee, and Magazines committee.

V.   Policy Development

In FY2015, the Publications Board updated a number of publications policies, generally in response to issues that highlighted the need for policy development. Among the significant policy actions taken were:

- The policy on Publication of Conference Proceedings in ACM Journals was modified to remove a notation that the policy did not apply to SIGGRAPH and TOG. The implicit message was that the operation of TOG-SIGGRAPH was not in compliance with the policy. After examination of the review processes of the SIGGRAPH conference and it's integration with TOG's review processes, the Board voted to remove the annotation regarding the exception.

- The policy on including the proceedings of in-cooperation events in the Digital Library was clarified. In-cooperation conference wishing ACM to be the publisher must go through ICPS (preferred). Decisions regarding hosted content will be determined on a case-by-case basis by the Publications Board. Content from another Publisher can be indexed in the Guide if the Publisher provides metadata and the in-coop SIG requests it. Events that were already being included in the DL through in-cooperation status would be grandfathered. Work is on-going as to how to codify some of the operation details.

- A new policy on author representations that makes it explicit that the submitter is actually the author of the work and that all authors of the work are aware of the submission, that the paper honestly represents the underlying work on which it was based, that the author(s) intend to and are able to publish it in the venue to which it is submitted (including presenting conference papers when required), that the authors have not submitted the work for simultaneous review, and that the authors have disclosed all prior published work on which this paper is based.

This policy was developed in response to a number of cases of unethical conduct where authors claimed to be unaware that their conduct violated ACM's and the community's expectations.

VI. Open Access and Related Publications Issues

The Publications Board has been active in working to explore ways to balance the growing demand for greater public access to scholarly outputs and ACM's ability to satisfy this need in a sustainable way so that ACM will be able to continue fulfilling its mission over the long term. As a leading non-profit society, ACM utilizes surpluses from its publications program to fund a variety of good works initiatives, which include outreach efforts in India and China, outreach to women in computing, services for and outreach to practitioners, outreach to and support of K-12 education, curriculum development at the post-secondary level, and public policy work. Without a viable business model for ACM's publications program, many of these programs would be in jeopardy.

We regularly assess factors that may influence ACM's ability to maintain paid DL subscriptions, including national mandates to make research open. In the past year, in addition to continuing current policies and experiments offering authors a choice of copyright transfer, exclusive license, or author-paid OA with the option of non-exclusive licenses; offering authors the opportunity to provide free access to their articles from a personal or institutional web page through Author-Izer links; permitting conferences to make open their proceedings for one month surrounding the conference date; permitting conferences or SIGs to provide a Table of Contents of Author-Izer links to their conference proceedings; and the suite of author-retained rights ACM has long provided, we have taken the following additional steps:

- Approved in concept the creation of an umbrella Gold-OA ACM journal. The attempts to attract an organizing group and possible editor were unsuccessful. The Board believes we should broaden our OA offerings. Consequently, the Board is evaluating other options regarding Gold OA journals.

- In response to reduced publication costs, we substantially lowered the OA article processing charge for conference papers, in turn better aligning the charges for conference and journal articles with underlying costs and revenues.

- In response to continued pressure for additional steps to make content open, the Board began discussions regarding discontinuing the three-year experiment with OpenTOC and allowing SIGs to leave OpenTOCs up permanently.

  We conducted a survey of ACM Fellows, Authors, and Volunteers to gauge the attitudes with respect to publishing in conferences and journals and various OA models and the recently launched PeerJ. Generally, the responses of the three groups were similar on most questions. Most respondents supported some sort of Gold OA journal offering with the strongest support for Gold OA editions of existing journals. Most ACM Fellows were not in favor of ACM pursuing a PeerJ type publication. The trend with Authors was not as clear. With respect to launching an umbrella Gold OA journal, most preferred Gold OA versions of

existing journals. The survey was also sent to CACM readers and the results were consistent with the other groups. The Board is using the survey information gathered to help formulate and guide our strategies.

- ACM took a leadership role in the establishment and development of the CHORUS initiative (see www.chorusaccess.org), which is a publisher driven non-profit organization that provides for public access to government funded scholarly research. Over the past year, CHORUS has made significant progress by partnering with several of the largest U.S. federal funding agencies (DOE, Smithsonian, NSF*, USGS, etc.) to facilitate the availability of publicly accessible versions of the leading scholarly publishers journal and conference articles.

Issues of open access and DL sustainability remain high priorities for the Publications Board. We are exploring a variety of approaches, including agreements with some institutions (e.g., Google) to pre-arrange for open access to publications by their authors (through pre-payment of OA fees), and considering the types of services and value-added content that might form the core of a new revenue model if/when traditional subscription revenue is no longer sustainable. We do not see any imminent cliff, but recognize that there is a high-probability that our long-term revenue model will be very different from today.

VII. Standing Committees

The following sections describe the activities of the six standing committees of the Publications Board.

A.   Ethics and Plagiarism

Catherine McGeoch chairs the Ethics and Plagiarism committee. Members include: Ee-Peng Lim, Igor Markov, Cherri Pancake, with Konstan and Rous as liaisons.

The Ethics and Plagiarism Committee addresses both individual plagiarism and publication ethics cases and greater policy issues surrounding those cases. Over the past year, the committee has handled various cases brought to it by various parties. Interestingly, several cases have involved parties claiming their ideas were stolen or not properly credited. Compared to plagiarism cases involving verbatim copying, this type of case is much harder to investigate.

A current activity of the Ethics and Plagiarism committee is the development of definitions of authorship and other roles (e.g., performed data collection, performed data analysis, performed experiments, etc.)

B.   Assessment and Search

Anne Condon and Mary Lou Soffa are co-chairs of the Assessment and Search committee. Members include: Ron Boisvert, Nikil Dutt, Krishnendu Chakrabarty, Chris

Hankin, Mary Jane Irwin, Craig Partridge (resigned in January 2015), with Konstan, Rous, and Lander as liaisons.

The Assessment and Search Committee is responsible for conducting both regular assessments of and editorial searches for ACM's journals. EiCs serve for three-year terms, with the possibility of a single renewal. The Assessment and Search committee evaluates EiCs who wish to seek renewal. The committee reviews the operational and quality effectiveness of their leadership, including gathering input from peers and SIG leaders.

When there is a vacancy, an ad hoc search committee is formed in accordance with the Board's appointment policy. SIGs have been working actively with the Publications Board in forming these committees and conducting the searches, much to the benefit of the ACM Journals and Transactions involved. During FY 2015 Editors-in-Chief of 13 ACM periodicals were appointed or reappointed by the Publications Board. Table 2 lists these actions.

In addition to the searches and reappointments handled in FY15, the committee has developed a policy regarding conflict-of-interest for members of EiC search committees, and refined a policy on journal assessment that includes a review of editorial performance (prior to considering editorial re-appointment) and a comprehensive review of journal performance (prior to commencing a search for a new editor). This review process examines both the operational functioning and the quality of the journal, and gathers broad input to assess the degree to which the journal serves its research community and is viewed as one of the premier journals in its field.

Table 2. *Editor-in-Chief Appointments During FY 2015*

New Editors for Existing Publications		
Transactions on Management Information Systems (TMIS)	*Alexander Tuzhilin (New York University, Stern School of Business, USA)*	*09/01/2014- 8/31/2017*
Transactions on the Web (TWEB)	*Brian D. Davison (Lehigh University, USA) Marianne Winslett (University of Illinois at Urbana-Champaign, USA)*	*01/01/2015- 12/31/2018*
Transactions on Algorithms (TALG)	*Aravind Srinivasan (University of Maryland, USA)*	*09/01/2014- 08/31/2017*
Transactions on Graphics (TOG)	*Kavita Bala (Cornell University, USA)*	*03/01/2015- 04/30/2018*
Transactions on Applied Perception (TAP)	*Victoria Interrante (University of Minnesota, USA) Diego Gutierrez (Universidad de Zaragoza, Spain)*	*0101/2015- 12/31/2018*

Crossroads: The ACM Magazine for Students (XRDS)	*Jennifer Jacobs (Massachusetts Institute of Technology, USA)* *Okke Schrivjvers (Stanford University, USA)*	*01/01/2016-12/31/2019 (partial term only)*
Transactions on Computational Logic (TOCL)	*Orna Kupferman (Hebrew University, Israel)*	*06/01/2015-05/31/2018*
Transactions on Intelligent Systems and Technology (TIST)	*Yu Zheng (Microsoft Research, China)*	*06/01/2015-05/31/2018*
Reappointments		
Transactions on Spatial Algorithms and Systems (TSAS)	*Hanan Samet University of Maryland, USA)*	*04/01/2015-03/31/2018*
Journal on Computing and Cultural Heritage (JOCCH)	*Roberto Scopigno (CNR-ISTI, Italy)*	*05/01/2015-04/30/2018*
Transactions on Sensor Networks (TOSN)	*Chenyang Lu (Washington University, USA)*	*09/01/2014-08/31/2017*
Journal of Data and Information Quality (JDIQ)	*Louiqa Raschid (University of Maryland, USA)*	*12/01/2015-11/30/2016*

C.   Conferences

Roch Guerin chairs the Conferences Committee. Members include: Marie-Paule Cani (resigned at end of FY2014), Koen De Bosschere, Jau C. de Oliveira, Steven Feiner, Lance Fortnow, Mashuda Glencross, Michael Hind, John Lui, Tamer Özsu, Mary Lou Soffa, with Konstan, Rous, and Cappo as liaisons.

The Conference Committee is charged with addressing issues related to conference publication. In the past year the committee has reviewed issues and practices related to open access, relationships between journals and conferences (including updating a catalog of conference reviewing practices), representations of conferences (as entities) in the Digital Library, and greater incorporation of video content (including captured conference presentations) in the DL

A major output of the committee in FY2015 was a white paper that addressed the changing relationship between conferences and journal in computer science driven by changes in globalization, technology, and community size and recommendations for ACM to address these changes.

The white paper articulates a set of principles guiding the quality and evaluation for the most prestigious archival publications in computer science. This set of principles ensures that papers published in archival publications have a strong impact on the field, as well as strongly ensuring accuracy, completeness and correctness. All such publications must

have a review process that provides for sufficient reviewers with the appropriate expertise and a timely process that still ensures sufficient communication between authors and reviewers. Finally, while conciseness of exposition remains an important virtue, archival publications should include all the material needed for a comprehensive treatment without artificial page length limitations.

The white paper made the following recommendations:

- Offer a uniform branding mechanism for identifying high-quality archival ACM publications;
- Promote consistent external visibility and recognition of those ACM publications;
- Provide a high-quality archival ACM publication vehicle easily accessible to a geographically diverse set of potential authors.

- Eliminate artificial distinctions between journals and conference proceedings provided both abide by the principles put forth.

- Develop a new series titled *Proceedings of the ACM,* which would be officially classified as a journal, but used primarily as a vehicle to publish papers accepted for presentation at top ACM conferences.

- Collaborations between conferences and an existing ACM journal or the *Proceedings of the ACM* must document how they expect to conform to the principles.

The Publications Board has endorsed the recommendations and work is in progress to create operation guidelines to for the *Proceedings of the ACM.*

D.   New Publications

Nikil Dutt chairs the New Publications Committee. Members include: Tamer Özsu, Nikul Dutt, Gustavo Alonso, Sanjeev Arora, Susanne Hambrusch, Carol Hutchins, Wendy Mackay, with Davidson, Rous, Delman, and Lander as liaisons.

The New Publications Committee processes specific proposals for new journal publications and identifies topics where new proposals are warranted, seeking to foster teams to generate those proposals. In the past year, the committee has addressed proposals on areas including data and replicability, cyber-physical systems, big data, and social computing.

One new journal was approved in FY2015 (see Table 3). The journal, *ACM Transactions on Cyber-Physical Systems* (TCPS), covers the emerging and rapidly growing area of cyber-physical systems. Cyber-Physical Systems (CPS) has emerged as a unifying name for systems where the cyber parts (i.e., the computing and communication parts) and the physical parts are tightly integrated, both at the design time and during operation. Such systems use computations and communication deeply embedded in and interacting with physical processes to add new capabilities to physical systems. These cyber-physical systems range from miniscule (pace makers) to large-scale (a national power-grid). There is an emerging consensus that new methodologies and tools need to be developed to support cyber-physical systems.

Table 3. *New Publications Started in FY 2015*

New Publications		
Transactions on Cyber-Physical Systems (TCPS)	*Tei-Wei Kuo (National Taiwan University, Taiwan)*	*03/01/2015-02/28/2018*

A proposal for *ACM Transactions in Social Computing* (TSC) is being processed and is near approval.

Another activity of the committee is a review of the portfolio of ACM journals with the goal of identifying gaps. The goal for the coming year is to identify two topics where ACM should have a journal, find a champion for the topics and work with the proposers to create proposals that can be brought before the Publications Board.

E.   Technology

The Technology Committee is chaired by Alex Wade. Members include Nikil Dutt, Mark Gross, Henning Schulzrinne, Alex Wade, with Davidson, Rous, Rodkin, and Graves as liaisons.

The Technology Committee addresses future publishing technological improvements and opportunities for improving the ACM DL and its publications. The committee works in close cooperation with the Digital Library Committee. In the past year, the committee has looked at the overall workflow for content being placed in the Digital Library, explored questions of mathematics representations in ACM articles, has looked at questions of storing non-PDF content such as Data and Code (including whether this should be developed into the DL or contracted out), and has addressed important conflict-of-interest issues to ensure transparent recommendations while engaging active industry leaders in the committee.

F.   Digital Library

The Digital Library is chaired by Ron Boisvert. Members include: Boisvert, Jonathan Grudin, Roch Guerin, Joshua Hailpern, Carol Hutchins, Michael Lesk, Gary Marchionini, Catherine McGeoch, Samantha Merritt, Dina Papagiannaki, Stephen Spenser, Changsheng Xu, with Davidson, Rous, Delman, and Graves and liaisons.

The Digital Library committee is responsible for evaluating and defining the services that should be provided by the ACM DL. The committee works in close cooperation with the Technology Committee. In the past year, the committee has explored a number of issues including developing a set of priorities for DL improvements (e.g., search interaction), archiving data and code, metrics and metric-based services, and other DL enhancements.

In FY2015, the Digital Library Committee held an in-person meeting and defined three projects.

- A DL User Interface Design Project to be run as a design contest. Josh Hailpern was the lead on this project. While the project got off to enthusiastic start, ultimately it languished and was terminated.
- A second project was to define useful DL analytics and metrics and how they might be possibly be productized. This project was to be led by Dina Papgiannaki. Unfortunately due to shifting work assignments, Dina needed to step down as the lead of this project. The Technology Committee is looking to restart this project with a new leader.
- The third project involves hosting data and other non-PDF objects (e.g., executable artifacts) in the DL. This project is joint between the DL and Technology Committee and is being led by Mike Lesk. This project is moving ahead and there is a face-to-face meeting planned for July 1, 2015. The purpose of the meeting is to bring together people that are working on some aspect of data, software, and reproducibility. The group is large with approximately 30 people. The group which includes active SIG volunteers, EiCs of two journals (TOMS and TON).

G.   Magazines

This committee was chaired by Alain Chesnais. Due to other commitments, Alain stepped off the Publications Board. Staff and the co-chairs Davidson and Konstan have been searching for a person who has expertise in the area of magazines to chair this committee, but we have not been able to identify a person willing to take on this chairmanship.

Consequently, the Magazines Committee has languished and its existence needs to be revisited. Its charge covers all issues related to the evaluation, management (including editorial searches for), and strategic planning for magazines, including developing an effective business model for ACM's magazine publishing and recommending/evaluating new magazines (broadly scoped to include other forms of practitioner content publication).

Currently magazine EiC are being handled by ad hoc committees that are formed for the specific publication. In FY2015, three were three searches: *Computers in Entertainment* (CIE), *XRDS: Crossroads, The ACM Magazine for Students*, and *Inroads*.

For *Computers in Entertainment* (CIE), a search committee was created with Joe Marks (Upfront Analytics) as the Chair. Members of the search committee were: Chuck Rich (Worcester Polytechnic), Markus Gross (Disney Research), Ivan Poupyrev (Google Motorola), Tony Rose (Disney/Pixar), Matthew Turk (University of California, Santa Barbara), Newton Lee (representing ACM), Scott Delman (ACM), and Denise Doig (ACM). The committee identified three candidates. After evaluation and discussion, the committee recommended R. Michael Young from North Carolina State University. The Board voted unanimously in favor of appointing Professor Young.

Unfortunately, Professor Young withdrew his application for the position as he was asked to lead a games research center at NCSU. He felt that with this new responsibility that he would not have time to be EiC of CIE.

A new search committee must be activated (or the old search committee reactivated).

For XRDS, Chris Harrison from CMU (a former EiC of XRDS) formed a search committee. The search committee recommended Jennifer Jacobs (MIT Media Lab) and Okke Schrijvers (Stanford) to be co-chairs. These appointments were approved unanimously by the Publications Board. Their terms of appointments are January 1, 2016 through December 31, 2019.

The search for the next EiC of Inroads is being lead by Barbara Boucher Owens who is a former chair of SIGCSE and an SGB Council Representative to the ACM Council. This search is ongoing and should be concluded by September 2015.

VIII. Other Ongoing Projects

A.   Business Models Working Group

The Business Models working group is co-chaired by Jack Davidson and Joseph Konstan. Members include: Bernie Rous, Scott Delman, Wayne Graves, Darren Ramdin, and Pat Ryan. This committee is focused on publications business models issues. In the past year, it has looked at issues including Gold OA, Article Processing Charges, the ICPS business model, varying models for conference publication costs and rights, and conference-journal hybrid business models.

B.   Journal Management

Laura Lander manages the journals program. As part of the management activity, Laura provides the Assessment and Search Committee statistics about the health of each journal.

C.   Journal Changes

Two ACM journals are undergoing changes in name and broadening of scope.

In response to proposals seeking to create a clear venue for privacy research, TISSEC's scope of information and systems security is being expanded to more explicitly include privacy. This expansion of scope was included in the call for nominations for the EiC search to replace outgoing EiC Gene Tsudik. This effort will be lead by the new EiC who should be in place by Fall 2015 (David Basin of the Department of Computer Science at ETH in Zurich has been appointed).

Starting in early 2016, the journal will have the new title *ACM Transactions on Privacy and Security* (TOPS). As described in its revised charter, TOPS publishes high-quality research results the fields of information and system security and privacy. Studies addressing all aspects of the field are welcomed, ranging from technologies, to systems and applications, to the crafting of policies. Topics of interest include:

- Security Technologies: authentication; authorization models and mechanisms; auditing and intrusion detection; cryptographic algorithms, protocols, services, and infrastructure; recovery and survivable operation; risk analysis; assurance including cryptanalysis and formal methods; penetration technologies including viruses, Trojan horses, spoofing, sniffing, cracking, and covert channels.

- Fundamentals: Theory of security and privacy, models of trust, methods for quantifying the risk of the disclosure of private information or the risk a system will be compromised, mechanisms and algorithms that have wide application, including privacy models (e.g. k-anonymity based models and knowledge hiding models) and methods of secure communication with various properties (e.g. non-repudiation or forward secrecy).
- Secure Systems: secure operating systems, database systems and networks; secure distributed systems including security middleware; secure web browsers, servers, and mobile code; specialized secure systems for specific application areas; interoperability, and composition.
- Privacy Methods: Methods to offer location privacy, anonymization techniques for users and their data, statistical disclosure control techniques, private information retrieval, protocols for secure multiparty communications, protecting confidential consumer data, and the like.
- Security and Privacy Applications: Threats, system tradeoffs, and unique needs of applications; representative application areas include information systems, workflow, cloud computing, cyber-physical systems, electronic commerce, electronic cash, copyright and intellectual property protection, telecommunications systems, wireless systems, and health care. Design of security and privacy (user experience and usability).
- Privacy and Security Policies: confidentiality, integrity, availability, privacy, usage, and survivability policies; tradeoffs, conflicts and synergy among security and privacy objectives.

In response to its Editor's initiation and goal of better serving the community, TALIP is being renamed *ACM Transactions on Asian and Low-Resource Language Information Processing* (TALLIP), and is correspondingly broadening its scope to a wider range of languages. As described in its new charter, TALLIP publishes high-quality original archival papers and technical notes in the areas of computation and processing of information in Asian languages, low-resource languages of Africa, Australasia, Oceania and the Americas, as well as related disciplines. The subject areas covered by TALLIP include, but are not limited to:

- Computational Linguistics: including computational phonology, computational morphology, computational syntax (e.g. parsing), computational semantics, computational pragmatics, etc.
- Linguistic Resources: including computational lexicography, terminology, electronic dictionaries, cross-lingual dictionaries, electronic thesauri, etc.
- Hardware and software algorithms and tools for Asian or low-resource language processing, e.g., handwritten character recognition.
- Information Understanding: including text understanding, speech understanding, character recognition, discourse processing, dialogue systems, etc.
- Machine Translation involving Asian or low-resource languages.
- Information Retrieval: including natural language processing (NLP) for concept-based indexing, natural language query interfaces, semantic relevance judgments, etc.

- Information Extraction and Filtering: including automatic abstraction, user profiling, etc.
- Speech processing: including text-to-speech synthesis and automatic speech recognition.
- Multimedia Asian Information Processing: including speech, image, video, image/text translation, etc.
- Cross-lingual information processing involving Asian or low-resource languages.

Papers that deal in theory, systems design, evaluation and applications in the aforesaid subjects are appropriate for TALLIP. Emphasis will be placed on the originality and the practical significance of the reported research. In addition, papers published in TALLIP must relate to some aspect of Asian or low-resource language or speech processing. Asian languages include languages in East Asia (e.g. Chinese, Japanese, Korean), South Asia (Hindi, Tamil, etc), Southeast Asia (Malay, Thai, Vietnamese, etc.), the Middle East (Arabic, etc.), and so on. Low-resource languages of primary interest are those of Africa, Australasia, Oceania, the Americas and, of course, Asia.

D. DL Enhancements

Two notable DL enhancements are the rollout of new journal home pages with consistent design and branding, and the development of an ACM conference app. The journal home page rollout began in FY 2014 and will be complete in FY2016. We continue to explore ways to improve the integration between the DL and its constituent publications (conferences, journals, magazines, and more) and to explore ways the DL can support a broader set of activities (including serving as a conference program for conferences that provide sufficient program metadata as part of their proceedings). The Publications Board appreciates the efforts of Wayne Graves and the IS team in continuing these developments.

E. International Conference Proceeding Series (ICPS)

Ron Perrot is the current EiC of the International Conference Proceeding Series. The ICPS program continues to grow. In 2014, 160 applications were processed and 123 volumes published. From Jan. 1 to Oct. 20, 2015, 174 applications were processed and 67 volumes published; another 77 volumes await content delivery. Part of the accelerated growth is that ACM began to market ICPS by developing a flyer that can be distributed at conferences. The 975 volumes in ICPS contain 31,000 articles. The average download count per article is 262 with a citation count of 2.57 per article.

F. ACM Books

In 2014 ACM launched a new series of research monographs and graduate level textbooks called ACM Books. The series is edited by Tamer Özsu, a member of the ACM Publications Board, and is being published in collaboration with Morgan & Claypool, a small but well respected commercial book publisher based in San Francisco. Individual titles will be published as eBooks in the ACM Digital Library and will be sold as collections to the institutional library market with individual titles available for purchase via Amazon and other online retailers. Six books in the series are now available

in the ACM DL Fourteen additional titles are being developed. Additional information is available at books.acm.org and on the main landing page of the ACM Digital Library at dl.acm.org.