Practitioner Board

**ANNUAL REPORT**

September 2018

Submitted by Terry Coatta, Stephen Ibaraki [co-chairs 2016-2018]

**Summary**

The Practitioner Board has been operating since June 2005. The board itself meets via teleconference as needed and we had 2 face-to-face meetings this year. The board was actively engaged on the projects that we have undertaken and we have good staff support.

**2017/2018 Board Membership**

**Chairs**:

Terry J. Coatta
Stephen Ibaraki

**Members at Large**:

Eve A. Andersson (PDC—Professional Development Committee)
Stephen Bourne (Queue)
Karin K. Breitman (Pubs)[[1]](#footnote-1)
Frits Bussemaker (MC—Marketing Committee)[[2]](#footnote-2)
Alain Chesnais
Adam Cole (Case Studies)
Andrew Conklin (DSP—Distinguished Speakers Program)
Michael G. Hinchey
Srikantan Moorthy
*Dave P. O'Leary (MC—Marketing Committee)*
Toufi Saliba (CC—Conference Committee)
Theo E. Schlossnagle
Xiaosheng Tan

[Advisor: Peter Lee]
[Advisor: Thomas Wiegand]
 **ACM**Wayne Graves (IS Director)
Scott Delman (Director of Publications)
Pat Ryan (COO)
Bruce Shriver (Senior Marketing Manager)
Yan Timanovsky (Education & PD Manager)

 **Overview**

The Practitioner Board operates primarily through a number of committees that address specific needs and programs. The achievements of the board are primarily the achievements of these committees and these are reported on in detail in the remained of this report. The primary focus of the board as a whole is the initiation of new projects and coordination, both of the activities of the committees, but also with other units within the ACM itself. In addition to this, the board plays a significant role in the acquisition of volunteers to work within the committees.

The active sub-committees of the board over the past year were:

* The Case Study Committee (CSC)
* The Conference Committee (PB-CC)
* The Distinguished Speakers Committee (DSC)
* The Marketing Committee (PB-MC)
* The Metrics Committee (PB-Metrics)
* The Professional Development Committee (PDC)
* Affiliated program: Morning Paper
* Affiliated program: The Practitioners/Publications Joint Committee (PB-JPC)

Notable achievements in this respect for this year are:

* The Case Studies Program output was low again this year, although partially due to forces beyond the control of the group. A completed case study has been held up in internal review at Google since last fall. The pipeline is healthy at this point with one case study in completed draft form, one in initial draft form, and several others in the planning stage.
* The Distinguished Speakers Program has been integrated into the Practitioners Board with a stronger focus on developing speakers and topics of interest to practitioners. Andrew Conklin is leading these efforts.
* ACM Local, under the leadership of Andrew Conklin, has grown significantly in existing markets and launched new ones, with increased engagement and exciting plans to improve the experience.
* The Conference Committee (chaired by Toufi Saliba) put on several workshops and a practitioner-oriented one-day conference in Toronto bringing together AI and Blockchain professionals.
* The Professional Development Committee continued a highly successful webinar program. The Learning Center has been successfully migrated to ACM’s latest CMS. Other products are currently in development and proposal stages.
* An ongoing set of performance metrics is now being collected for Case Studies.
* Continued partnership with the Morning Paper, a popular daily blog on the most interesting research areas to practitioners with integration into the Digital Library for papers of interest and cross linking back to the Morning paper for a practitioner’s focused summary.

It should be noted that a number of structural changes to the Practitioners Board have been initiated as of August 2018. In particular, theConference andMarketing Committees were sunsetted after the end of FY18.

**Case Study Committee (PB-CSC) – Chaired by Adam Cole**
**Membership**

* Mark Compton (Principal, Fallen Journalist; ACM editor/coordinator)
* Adam Cole (President, HealthChain; Chair)
* David Bianco (Principal Engineer, Cybersecurity, Target)
* Frits Bussemaker (Chairman, Institute for Accountability in the Digital Age)
* Terry Coatta (CTO, Marine Learning Systems)
* Jessy Irwin (Head of Security, Tendermint)
* Chris McCubbin (Senior Applied Scientist, Amazon Web Services)
* Lucas Panjer (Senior Director of Engineering, Tasktop Technologies)
* Robin Raskin (Founder, Living in Digital Times)

**Summary**

The mission of the Case Study Committee is to create high quality case studies targeted toward an audience of senior engineers. Case studies are based on actual engineering projects intended for production use.

The changes anticipated in last year’s report have not occurred as quickly as the committee had hoped, but the outlook is steadily improving. One of the setbacks this past year is that a completed case study has become ‘stuck’ in Google waiting for their approval. A number of attempts have been made to rectify this situation through contacts with senior executives at Google. We are still hopeful that it will be approved. The pipeline of case studies is currently healthy, with one completed draft which should be published within a month, one initial draft completed, and one in which the initial interview with the participants has been completed and the follow call is being interviewed. In addition, several additional topics are being actively pursued.

**Improved Code Review Process**: Microsoft Research (MSR) has been sifting through code amassed over years of software development efforts at Microsoft to gain some insights into how the code review process might be streamlined — or, in some cases, eliminated altogether. What’s come of those efforts? And what techniques were employed to sift through all that code?

*Status*: In production (delivered to Queue)

**Trends in Web Development:** The general drift of the story here is that researchers at MSR have sifted through Microsoft’s massive code repositories — as well as some codebases outside of Microsoft — to gain insights into how the code review process might be improved. And it turns out they’ve arrived at some general conclusions that might be applied by any organization.

*Status*: Draft complete. Waiting on Google’s approval (stalled)

**Blockchain for Transaction Reconciliation**: Considers why blockchain technology is now being used to address some particularly difficult aspects of transaction reconciliation between banks as well as some of the challenges the developers at Digital Asset have encountered in the course of building their Distributed Ledger Technology.

*Status*: Initial Draft

**Blockchain and Health Informatics**: Looks at the technical challenges associated with “inverting” the normal paradigm of patient information; that is, giving ownership of patient records to the patient and having service providers interact with that data as clients whose access is controlled by the patient.

*Status*: First Interview Session Complete

**Debugging concurrent Systems**: How Mozilla’s C/C++ debugging tool for Linux (Mozilla rr) deals with concurrency issues. We’re hoping to discover what the experience has been like in terms of using rr to deal with multithreaded programs, especially since it was modeled on a single-processor machine for performance reasons — which may prove to be a good way to illustrate that concurrency and parallelism are not one and the same.

*Status*: First Interview Session Complete

**Conference Committee – Chaired by Toufi Saliba**

**Membership**

* Toufi Saliba, PrivacyShell (PB-CC Chair)
* Mike Hinchey, Irish Software Engineering Research Centre (LERO), ACM PB
* Xiaosheng Tan, Qihoo 360, ACM PB
* City Advisors (Local Chairs):
	+ PB-CC Advisor: Llanjin (Ken) Huang, past Huawei VP; China
	+ PB-CC Advisor: Audrey Raby, CEO Nash; Montreal
	+ PB-CC Advisor: Quinton Carlin, Busan, South Korea
	+ PB-CC Advisor: Jason Ernst, CTO RightMesh; ACM FCA; Vancouver

**Summary**

The Conference Committee launched February 22, 2017, with Toufi Saliba as Chair. The goal of AiDecentralized (<https://www.aidecentralized.com/>) was to tap into meetup groups in 25-30 major cities to collide AI and Blockchain practitioners. This could help convert a big chunk of them to become ACM members and contributors to the ecosystem.

The first pilot workshop (July 2017) expected 100 people, but **300** showed up. The pilot was expanded to the level of a city summit, held in Toronto in May 2018. Speakers included Silvio Micali (a Turing Award Winner), a Nobel Peace Prize winner, Founder and CEO of SingularityNET Ben Goertzel. The conference was revenue positive with more than 400 attendees, although only a small fraction of these were paid registrations. AiD also generated significant media coverage, with ~30 online stories. Photos and videos from the conference are available at AiDecentralized.com.

Although the conference was successful by some metrics, it may be difficult to replicate due to its reliance on corporate support versus paid registration. Another team, led by Jason Ernst of the ACM FCA, is working on plans to produce an AiD in Vancouver in 2019 (date TBD).

As noted in in the overview materials, we are in the process of winding this committee down as we have decided to make a strategic change in our approach to local activities by focusing on the DSP and ACM Local.

**DSC (Distinguished Speakers Committee)**

**Membership**

* Andrew Conklin (Chair, DC)
* Sebastian Borza (Chicago)
* Gavin Doherty (Ireland)
* Valerie Woolard (DC)
* Todd Chapin (Boston) 6/2017
* Alexandre Renteria (Brazil) 9/2017
* Srinivas Padmanabhuni (India) 7/2018
* Both AI, ML, Computer Vision, NLP, Computational Theory, Algos, Math, Security & Privacy
* Faez Ahmed (NYC) 7/2018
* Theory Architecture & Robotics, Data Science, Applied Computing
* Jess Bell (Santa Cruz, CA) 7/2018

**Summary**

The goal of the program is to bring distinguished speakers from academia, industry, and government to give presentations to ACM chapters, members, and the greater tech community in a variety of venues and formats.

The committee holds conference calls for 40 minutes about 6 times a year. We have typically held them on Friday mornings at 11am Eastern Time.

We had a much stronger year in comparison to prior years. Although we have a lecture given in 34 countries, the EU was the clear hotspot with 39 lectures, followed by India with 35, and the US with 31. All others were single digits. We received the most nominations this year since 2015, with 16 new speakers from the USA and 6 from India.

Out of all the categories that organizer requests come from, only “Conferences” increased. Although Chapters and Universities are the most popular, “Conferences” should be our focus. It had a 9% increase over last year with regard to total requests, and a 20% increase since 2013.

We increased the number of lectures by 48% over the prior year. We increased audience reach by 10%, while our budget also increased by 10%.

**ACM Local**

**Membership**

Andre Conklin, Chair

**Summary**

The goal of the ACM Local committee is to engage computing practitioners with learning and networking opportunities through meetup events. The mission of ACM Local is to serve as “Activators.” It activates city tech communities, which are at the forefront of computing, and city event organizers in their areas of technical interest and exploration, providing support for both speakers and attendees at all stages of their computing careers.

In FY18, ACM Local reached 14,842 peers, with 8,303 rsvps, 108 events, 56 organizers, and 14 meetups. There were increases across all metrics from FY16 and FY17, including a fourfold increase in peers and RSVPs from the same period two years ago (see below). In FY18, South Bay was the most active ACM Local area by far as measured by Peers, RSVPs, and Events.



**Standout events**:

* **2018 DC FemTech Awards**, which had 600-700 in attendance, with 54 winners who all identify as female, and the participation of both the ACM DC Professional Chapter and the local meetup community. ACM was mentioned prominently at the event.
* **ACM Chicago Meetup** with **Hadley Wickham**. It was the second most popular video this year behind the 2017 Turing Lecture, with ~8k views after 4 months, and the 30th most popular video all time

**Marketing Committee of the ACM Practitioner Board (PB-MC)**

**Membership**

* Frits Bussemaker, ‎CIONET (Chair)
* *Dave O'Leary, REDDS Venture Investment Partners (Founding Chair deceased)*
* Adam Cole, HealthChain
* Stephen Ibaraki, REDDS Venture Investment Partners
* Nithin Jilla, Dreams for Schools
* Elim Kay, Kay Family Foundation

 **PB-MC Advisors**

* Alain Chesnais, TrendSpottr, SIGGRAPH
* Dominic Holt, Harpoon
* Patrick Malone, Microsoft
* Juan Miguel de Joya, Facebook/Digital Fish
* Robin Raskin, Living in Digital Times
* Deb Sorenson, C9|PR, Sorenson & Co

**Summary**

The Marketing Committee (PB-MC) was conceived to help ACM better understand and serve the practitioner community by raising awareness of relevant member benefits, products, and services. PB-MC started its work in October 2016 and since then has focused on two major projects:

* GPAC (Global Practitioner Advisory Community). The main interaction medium is a Slack channel that launched in May 2017. Since then, GPAC has been used to provide member (and non-member) feedback to inform existing and potential ACM products and services, including:
	+ Feedback on ACM Case Studies, Skillsoft Virtual Labs
	+ Feedback on reference sources, , conferences with particular appeal to computing practitioners, networking events like meetups
	+ Feedback on professional certifications
	+ Feedback on potential sources of digital advertising
* Practitioner Focused Survey completed in September 2017 (results presented at October 2017 meeting). MC members provided valuable input into the survey, working with the marketing company and ACM Marketing staff.

The Marketing Committee was sunsetted after the end of FY18, and the volunteers thanked for their service.

 **Professional Development Committee (PDC)**

**Membership**

* Eve Andersson, Google (Chair; appointed July 2016)
* Sue Black, TechMums
* Don Gotterbarn, East Tennessee State University; SIGCAS, ICCP
* Dominic Holt, Harpoon
* Stephen Ibaraki, REDDS Venture Investment Partners
* Bradley Jensen, Accenture; ICCP
* Juan Miguel de Hoya, DigitalFish and Facebook; SIGGRAPH
* Srikantan Moorthy, Infosys
* *Dave O’Leary, REDDS Venture Investment Partners (deceased)*
* Will Tracz, Lockheed Martin Fellow; SIGSOFT

**Webinar Subcommittee (PDC-W)**

* Will Tracz (chair)
* Eve Andersson
* Stephen Ibaraki
* Yan Timanovsky (ACM HQ)

**Summary**

In FY2017, the PDC participated in bimonthly teleconferences and had its annual in-person in San Diego October 19, 2017. Yan Timanovsky participated remotely. The PDC is responsible for a number of different areas of activity which will be reported on independently in the following sections.

**Webinars**

The successful webinar series continues to be the most exciting program from ACM Learning. Highlights included the a webinar with Fei-Fei Li, Chief Scientist of AI/ML at Google Cloud and Director of the Stanford AI Lab and Vision Lab. 5,300 people registered and 1,579 people attended. It was also one of the highest rated events we’ve done, with significantly higher percentages of women and international members (and non-members) attending than the average webinar.

Other notable talks were a tutorial on Quantum Computing by Jay Gambetta of IBM, ACM Eugene L. lawler Award winner Robin Murphy’s tutorial on the use of computing and robotics to aid in disasters, software engineering legend Grady Booch’s lecture on the history of software engineering, and Neha Narkhede on data streaming and the benefits of Apache Kafka (which she co-created). We also successfully packaged the first ACM “Webinar Series” on AI and Machine Learning, including webinars by Tom Mitchell, Eric Horvitz, and Fei-Fei Li.

In addition to the “Flagship” ACM Learning Webinar series, Yan Timanovsky has been providing limited marketing/promotional support to SIGSOFT’s webinar program, as well as helping SIGAI launch their webinar program. Both are healthy, drawing approximately 1,000 registrants and hundreds of viewers per webcast on average.

**Learning Center**

The ACM Learning Center migration to the Hippo platform (aligning it with other ACM web properties) was successfully completed. All ACM Learning Center portals (Safari, Skillsoft, ScienceDirect) have been successfully integrated with the new site and SSO login is now served using the SAML protocol.

The ACM Learning Center got a major overhaul this year. We continued to offer the full Safari library content (premium content with a practitioner focus); expanded collections of Skillsoft books/courses; and Elsevier ScienceDirect books, including new platforms with more user-friendly UIs and a new, unified SSO authentication protocol using SAML and IdP.

Stephen Ibaraki continues his series of podcasts with global practitioners in computing and IT. More than 120 podcasts/interviews/articles w/industry leaders (done by Stephen Ibaraki with no labor or financial impact to the ACM—funded by Stephen).

**Social Coder**

As part of ACM’s commitment to “Computing for a Social Good,” partnership between ACM and Social Coder (and founder Ed Guiness) went into effect in spring 2016. This was a PDC project spearheaded by Dave O’Leary with assistance from Dominic Holt and Don Gotterbarn. Volunteers have been signing up for ACM membership steadily since June 2016 Currently, between 60 and 100 Social Coder volunteers sign up monthly. Demographics of these members skew younger and more international, though the percentage of women is not significantly different than the overall membership demographics of ACM.

**CompTIA**

CompTIA partnership providing members with discount on training continues to have good uptake.

**Institute for Certification of Computing Professionals**

PDC member Brad Jensen has been elected President of the ICCP (Institute for Certification of Computing Professionals). ICCP rolled out a new certification in 2017, the Certified Big Data Professional.

**Future Plans**

***Webinars***: A number of events are already scheduled or planned for FY2019, including Ian Goodfellow of Google, Ankur Teredesai from SIGKDD with a tutorial on AI/ML in healthcare, Andrew Ng of Stanford/Coursera, 2018-19 ACM Athena Lecturer Andrea Goldsmith, and more. (*Update*, at time of writing, the webinar with Ian Goodfellow on Adversarial Machine Learning in July 2018 was a huge success, setting records for registration and live attendance.)

***Tech Talks***: First ACM “Tech Talk” pilot (18-20 minute videos to be recorded and distributed as on-demand recording) with Francesca Rossi (IBM) was a learning experience, used to tweak next pilot, with Blaise Agüera y Arcas, currently in post-production. Exact manner of distribution and hosting still TBD, likely to use YouTube.

**Tech Packs**: PDC members Juan Miguel de Hoya and Dominic Holt are working on a proposal toward an updated version of “Tech Packs” with a goal of making them useful to practitioners, refreshable, and sustainable. A proposal is expected to come in Q4 2018 to be brought to the PB in November 2018.

**Metrics Committee**

**Membership**

* Terry Coatta

**Summary**

Metrics are currently being collected by HQ staff for Case Studies. Since there has been any new case studies published, there is limited value in reviewing them this year. We have started the process of trying to centralize metrics collection for all Practitioners Board activities. The current focus is on moving Webinar related metrics to this central location.

***The Morning Paper* Blog – Wayne Graves as Main Point of Contact with Adrian Colyer**

Publishedweekday mornings with 7K audience, highlights important research for practice papers selected by **founder Adrian Colyer**. Wayne Graves has piloted opening ACM DL articles covered in *The Morning Paper*. Wayne has created a “trusted site” automated mechanism that enables Adrian to accomplish this task. The mechanism also exposes *The Morning Paper* summary to users of the DL via a link placed just after the abstract.  When you click through to the ACM Digital Library pages you can see links back to *The Morning Paper* just below the full text link as well as just below the abstract. These links will drive traffic and add to the discoverability of *The Morning Paper*. To date, 86 posts have utilized this “trusted site” service.

1. Karin Breitman rotated off the Board mid-year. [↑](#footnote-ref-1)
2. Frits Bussemaker took over as Marketing Committee Chair after Dave O’Leary’s passing. [↑](#footnote-ref-2)