IEEE Information Theory Society Board of Governors Meeting

Location: Universitat Pompeu Fabra, Barcelona, Spain

Date: 10 Jul 2016

Time: The meeting convened at 1:00pm CEST (GMT+2); the meeting adjourned 6:30pm CEST.

Meeting Chair: Alon Orlitsky

Minutes taken by: Stark Draper

Meeting Attendees: Jeff Andrews, Andrew Barron, Matthieu Bloch, Helmut Bölcskei, Stark Draper, Michelle Effros, Elza Erkip, Abbas El Gamal, Frank Kschischang, Alon Orlitsky, Vincent Poor, Rüdiger Urbanke, Urbashi Mitra, Pierre Moulin, Krishna Narayanan, Anand Sarwate, Emina Soljanin, Daniela Tuninetti, Alexander Vardy, Emanuele Viterbo, Aylin Yener, Wei Yu

Guests: Alex Dimakis, Gerhard Kramer, Matt LaFleur, José Moura

Motion: Approve agenda. Passed unanimously.

1) **President's Report:** President Alon Orlitsky presented the President's report. Alon reported to the Information Theory Society (ITSoc) Board of Governors (BoG) that the Society's finances are in good shape. The 2016 surplus is projected to be USD $66k. Revenues have declined slightly over the past few years. One factor is a drop in the numbers of clicks on Xplore, a second is a reduction in the number of subscriptions and memberships. Alon discussed research trends in core areas of information theory as well as related areas of research. He reflected on challenges and opportunities facing ITSoc and its members, and how the Society can respond and foster opportunities for it members. Alon designed the agenda to reserve one hour at end of the BoG meeting to discuss such issues.

2) **TAB Vice President (José Moura), first presentation:** Vice President of the Technical Activities Board (TAB) of the IEEE, José Moura (a professor at Carnegie Mellon University), next presented to the BoG. José started by summarizing some details of the IEEE: worldwide organization, membership in ~160 countries, organizes ~1600 conference per year, plays an important role in standardization efforts (e.g., IEEE 802.11, Zigbee), and a budget of ~$500m about 80% of which is derived from TAB activities. TAB strategic goals for 2016 focus on education and building communities. He next discussed the finances of the IEEE. He noted that since 2011 expenses have surpassed revenues with deficits having been financed from investments. The IEEE budget is currently not projected to get into balance until 2018. José noted that while overall revenue to IEEE has increased, the amount of that revenue that the IEEE has distributed back to the societies to help finance their activities has been kept roughly constant.

3) **Treasurer's Report:** Treasurer Daniela Tuninetti next presented her report on the state of the Society's finances. Daniela presented the actuals of the ITSoc budget from 2015 (the actuals for each year typically firm up in March/April of the following year, by which point most conferences have closed their books), the state of the 2016 budget, and the budget for 2017.

    Regarding the budget actuals for 2015, according to the 'society roll up' document, 58% of ITSoc revenue came from publications and 40% from conferences. Respectively, these two major items accounted for 51% and 37% of the expenses. The Society realized an operational net in 2015, which may be spent in 2016 for 'New Initiatives' as part of the "50% rule"; some of this has been allocated already at the previous BoG meeting to support

Shannon Day events worldwide. Other initiatives could be supported; Daniela solicited everyone for suggestions.

Daniela then reviewed the 2016 budget. The Society is on track, but is currently projected to have a reduction in net due to a revenue reduction forecast in publications.

Next Daniela reviewed the 2017 budget. The initial budget from IEEE aimed for a $170k net, but for various reasons, in part because there will be only one ITW in 2017 (rather than two), the current projection is $6k net. That revised budget is currently being reviewed by IEEE. In 2017 the Society has the possibility to include $140k for 'New Initiatives' as part of the "3% rule"; this budget item is being review by the TAB and, if approved, it may be included as part of the 2017 budget. Daniela solicited everyone to provide ideas, for and beyond continuation of the broad outreach of the Shannon centennial.

Daniela reviewed revenue lines: periodicals, conferences, and membership. In terms of periodicals the 'click' count from IEEEXplore and the 'content' figure are down; the declining click count is perhaps due, in part, to posting on and downloading papers from Arxiv. Regarding conferences: the major schools are no longer classified as 'new initiatives' but rather are now part of the regular budget. This means that a sustainable source of funding to subsidize schools must be identified, perhaps from conference revenue.

4) **Nominations and Appointments (N&A) Committee:** N&A Committee Chair Abbas El Gamal presented the list of BoG candidates for 2017-19.

Motion: To approve the list. The motion passed unanimously.

Abbas next presented an amendment to the bylaws concerning the editorship of the Transactions. In particular, and as was proposed, discussed, and approved by the BoG at earlier board meeting, a new position of Transactions Executive Editor has been created. The last step is to consider and approve a modification of the necessary bylaws. The modified portion of the bylaws is provided in its entirety below. As the bylaw modification had been discussed at previous board meetings, there was only a small amount of discussion at this meeting, mostly describing the proposed "convolutional" structure of the EiC(s) and a comparison and contrast to what is done in other societies.

Article V. Standing Committees

Section 7. The Publications Committee shall consist of the Society Transactions Editor-in-Chief who serves as chairperson, the Transactions Executive Editor, the Associate Editors of the Society Transactions, the Publications Editors, and the Newsletter Editor. The President, First Vice President and Second Vice President of the Society are ex-officio members of the Committee. The Committee shall generate yearly nominations for the Information Theory Society Paper Award, as per Article VII, Section 3, oversee the solicitation and review of papers for publication, and shall edit, prepare and publish the Transactions, Special Issues, Monographs, and Newsletter as directed by the Board, with the assistance of the IEEE Editorial Office. The Committee shall recommend changes in publication policy to the Board.

The terms of office of the Transactions Editor-in-Chief and the Transactions Executive Editor shall be eighteen months. At the end of a term of office, the Transactions Executive Editor shall assume the office of Transactions Editor-in-Chief, and a new Transactions Executive Editor shall be nominated by the Nominations and Appointments Committee and shall be appointed by the Board. The outgoing Transactions Editor-in-Chief is not eligible for immediate re-appointment as Transactions Executive Editor. Both the Transactions Editor-in-Chief and the Transactions Executive Editor shall be voting members of the Board.

Associate Editors are appointed by the Transactions Editor-in-Chief subject to approval by the Board. The Newsletter Editor shall be appointed by the Board, upon nomination by the Society President. The Senior Past President of the Society shall serve as Vice President of Publications.

Motion: To approve the change in bylaws. The motion passed unanimously

Abbas presented a slate of candidates for officer positions on the BoG.

Motion: To nominate Alex Vardy as second vice-president. The motion passed unanimously. Voting will be conducted online.

Motion: To nominate Emina Soljanin as second vice-president. The motion passed unanimously. Voting will be conducted online.

There were no further nominations for the position of second vice-president.

Motion: To nominate Elza Erkip as first vice-president. The motion passed unanimously. Voting will be conducted online.

Motion: To nominate Rüdiger Urbanke as president. The motion passed unanimously. Voting will be conducted online.

5) **Report of the Awards Committee:** Prior to the BoG meeting the Awards Committee submitted its report reviewing candidate papers for the Information Theory Paper Award. The full committee consisted of Alexei Ashikhmin, Elza Erkip, Steven Hanley, Andrea Montanari, Chandra Nair, Yingbin Liang, Ertem Tuncel, Rüediger Urbanke, Wei Yu, and Tsachy Weissman. Seven papers were considered for the award. The set was narrowed through multiple rounds of discussion.   Committee members Ashikhmin and Nair did not participate in the decision process due to conflicts of interest. Committee member Yu joined only in later rounds after conflicts in early rounds had resolved. The Awards Committee recommended that the 2016 award be given to two papers on unrelated topics (in random order): (i) "The Capacity Region of the Two-Receiver Gaussian Vector Broadcast Channel With Private and Common Messages," Yanlin Geng and Chandra Nair, *IEEE Trans. on Information Theory*, April 2014 and (ii) "Fundamental Limits of Caching," Mohammad Ali Maddah-Ali and Urs Niesen, *IEEE Trans. on Information Theory*, May 2014.

Motion: To accept the Committee report. There was a discussion of the recommendation to give the award to two papers. The paper award has most often been given to a single paper. On seven previous occasions it had been awarded to a pair of papers on closely related topics. Only once before, in 1973, was it awarded to two papers on unrelated topics. There was a variety of opinions on the BoG regarding the recommendation to give the award to two papers on unrelated topics. A motion was made to defer the acceptance of the report to provide the BoG more time to consider the recommendation.

> **Motion:** To table (suspend consideration of) the motion to accept the report with the stipulation that a one-month deadline would be set to decide whether or not to accept the report. The motion was seconded. There were 3 votes in favor of the motion, the majority of the BoG was opposed. The motion failed.

The original motion was then voted on. The BoG was unanimous in its acceptance of the Award Committee's report.

Further discussion of the papers and of the recommendation to give the 2016 award to two papers on unrelated topics then ensued. There was a discussion of the instructions the BoG provides to the Awards Committee, including the two-year time-window of eligibility. The discussion is to be continued online.

Motion: To give the award to the two papers recommended by the Awards Committee. Voting was as follows: 12 BoG member voted in favor of the motion, 2 voted to oppose, 6 BoG members abstained. The motion passed.

6) **Membership Committee:** Membership Committee Chair Elza Erkip presented the Committee's report. Congratulations was given to Helmut Bölcskei, the 2016 Padovani Lecturer, and also to the Benelux Chapter of the Information Theory Society which was named Chapter of Year. Elza then reviewed the Distinguished Lecturer program and initiatives to increase program activity. Elza reviewed the student subcommittee and outreach committee activities. A new mentoring program event will be held at ISIT 2016: there will be nine round-table discussions on career-related topics led by experienced mentors. Elza then discussed Women in Information Theory (WITHITS) activities. There will be a WIHITS lunch event at ISIT 2016. Finally Elza discussed some possible changes to the structure of the Membership Committee with recommendations to come at the October BoG meeting.

7) **Conference Committee:** Conference Committee Chair Emanuele Viterbo reviewed the status of upcoming IT symposia. For the 2017 Aachen and 2019 Paris symposia, the budgets are in the works. The ISIT 2018 Vail budget is in order with an expected registration of $790 (advanced price for IEEE + ITSoc members).   There will be BoG votes on all three budgets which will be conducted by email in the next few weeks. Budgets for the 2015 ITWs (Jerusalem and Jeju Island) have both closed.

Motion: To approve co-sponsorship of the 9th Int. Symp. on Turbo Codes 2016. The motion passed unanimously.

Motion: To approve co-sponsorship of the 2017 CISS. The motion passed unanimously.

Next, bids for ISIT 2020 were discussed. Discussion of these bids was chaired by Elza Erkip due to Emanuele having a conflict of interest.

The proposal to hold ISIT 2020 in Los Angeles was presented by Babak Hassibi. Babak reviewed the strengths of LA as a host city for ISIT, the team, the venues, the hotels (conference rate $279/night), and the registration fee (early @ $790 USD). Housing for students (and others) will be available at USC for $40-$60/night and will include transport to the conference center. There was discussion of the venue, logistics within LA, and cost of attendance. ISIT was last held in California in 1990.

The proposal to hold ISIT 2020 in Melbourne was presented by Emanuele Viterbo. Emanuele reviewed the strengths of Melbourne as a host city for ISIT, the team, the registration fee (early @ $675 USD), a grant of financial assistant from Melbourne of AU $102,000 of cash and in-kind support. There was a discussion of airline connections to Australia (about $1200-$1500 from N. America or Europe); Quantas and United Airlines will provide discounts to attendees. ISITA was hosted at the venue in 2014.

There was a discussion amongst the BoG about the proposals and also the possibility of awarding two ISITs given (1) that there are two excellent and comparable proposals, (2) both proposals have come to the table multiple times — this is the fourth time for Melbourne and the third time for Los Angeles. Pros and cons of awarding both the 2020 and 2021 ISITs at this BoG meeting were discussed.

Motion: To award the ISIT 2020 and 2021 to both LA and Melbourne conditioned on similar terms with the order and other details to be determined later by the board. Voting was as follows: 11 BoG members voted in favor of the motion, 6 voted to oppose. The motion passed.

Motion: To select the order of the ISITs (whether LA or Melbourne would occur in 2020). The motion was tabled (placed on hold for later consideration).

The two organizing committees were informed.

8) **Online Committee:** Online Committee Chair Anand Sarwate reviewed the committee composition. Two new members have joined the Committee: Evyatar Hemo and Mine Alsan. The redesign has been completed. The site will shortly re-launch and will include new content and capabilities. Anand reviewed the new features (improved member profiles, improved stability, automated office/committee membership updates, archiving capabilities), and outlined plans going forward (including archiving of old materials, solicitation of materials from the DL program, organization of resources for use by students/learners). The BoG raised some points about the redesign, providing feedback. Anand noted that funding of $45k was contributed to the redesign by the IEEE Technical Activities Board (TAB).

9) **Shannon Documentary:** Sergio Verdú spoke about the Shannon Documentary. The objective is to produce a one hour non-commercial film for the science, public relations, and STEM markets. The producer for the film is Mark Levinson who directed the documentary "Particle Fever". Sergio described Mark's vision for the film. A number of interviews have been completed and the script is in revision. A clip was played of Andrew Shannon playing the trumpet. The goal is to have the documentary completed in (roughly) one year's time.

10) **Schools Subcommittee:** Parastoo Sadeghi presented the proposal for the 2017 Australian School of Information Theory. The school will be three days long and will be held in January 2017. Young-Han Kim and Krishna Narayan will both be lecturers, with two more lecturers to be invited at ISIT. The school is planned for Canberra. The target size is 50 students. Total support request from ITSoc is $15000. The school will be run in tandem with AusCTW'17.

Motion: There was a motion to approve the funding for the 2017 Australian School. The motion was passed unanimously.

11) **TAB Vice President (José Moura), second presentation:** IEEE TAB Vice President, José Moura, next followed up his earlier remarks by informing the BoG of an upcoming proposed amendment to the IEEE constitution. The amendment regards the separation of the roles of Director and Delegates, i.e., of individuals being elected as members of the Board of Directors and elected as Delegates to the IEEE Assembly.

If effected, the constitutional change will reduce the size of the board from about 32 to 15. The 15 would include six officers and nine members-at-large elected directly by the membership for 3-year terms. The intention is for the restructured board to become a more agile and strategic organization. It would be supported by an operational board that will include the current six IEEE Vice Presidents such as the Vice President of Technical Activities and Chair of TAB, as well as the Vice President of Member and Geographic Activities Board (MGA) among others. This new operational board will, for example, vote on budgets, initiate new initiatives, etc. On the current IEEE Board, eleven members accumulate their Board representation with activities in the TAB. Similarly, eleven members accumulate their Board representation with activities in MGA. If the amendment is approved, this representation will be reflected directly in the Assembly, while the at large Board members will be elected directly by the membership.

At the June TAB meeting motions were presented asking the Board to rescind the constitutional amendment proposals. A motion presented in June to the Board to delay voting on the proposed amendment was defeated. The amendment presented to the

membership will include a supporting statement from the Board and five opponent statements presented by five IEEE members. Different Society Boards have taken positions on the amendment. By IEEE electioneering rules, any communication to the membership should be balanced and include both sides of the argument.

12) **Report on the Transactions**: EiC Frank Kschischang reported on the Transactions. Frank thanked the retiring AEs. He reported that Prakash Narayan started in March as the new Executive Editor (EE) of the Transactions. The EE is responsible for assigning submitted papers to AEs, while the EiC retains overall responsibility, including assembly of issues, following up with reviewers, and handling appeals. When the term of the present EiC ends (at the end of the 2016 calendar year), the EE will assume the position of EiC and a new EE will be appointed by the Nominations and Appointments Committee. Paper submissions to the Transactions have been fairly constant over the past few years. The lengthly review cycle remains a concern (median time to first decision among papers sent out for review is 196 days); however, certain new measures (reducing the default review period, increasing the intensity of reminders) are being implemented in an attempt to reduce review times. The quality of the Transactions, as measured by Eigenfactor, remains strong. Frank presented a slate of 13 new associate editors.

    Motion: To approve the list of new AEs presented by the EiC. The motion passed unanimously.

13) **Fellows Committee:** Fellows Committee Chair Helmut Bölcskei first thanked the previous committee chair Robert Calderbank and the members of the committee for their work. There are 16 nominees for IEEE Fellow in 2016. Results will be announced by the IEEE in November 2016.

14) **ITSoc Coordinator report:** ITSoc Coordinator Matt LaFleur introduced himself and his role at IEEE: interfacing with the ITSoc membership and BoG. Matt's top efforts this year have been: the Shannon Centennial, the website update, executing contracts, and helping with conference organization. Matt is a very available resource at the IEEE for ITSoc members.

15) **Shannon Centennial Committee:** Rüdiger Urbanke presented on behalf of Shannon Centennial Committee Chair Christina Fragouli. Rüdiger reviewed the many documents that had been created for the Centennial (many contributed by ITSoc members) — educational posters, logos, banners, etc. These are available for members' use. Rüdiger reviewed a list of Centennial events and requests for support.

16) **Online Instruction Initiative:** Suhas Diggavi reviewed for the BoG the goal of the Online Instructional Initiative. This is to create an online video forum for information theory and applications. Content could include expository lectures, an "IT hall of fame" to provide an historic perspective the field, nascent research including talks on new ideas to foster collaboration, new research directions, and non-academic outreach. Suhas then reviewed the mechanisms that would be established to support such an initiative: a steering committee, an organizing committee, and a financial committee. The initiative would aim to bring together much scattered content (some of which is already online) into a single portal. There was general approval. There was a question of whether the initiative could be folded into the Online Committee. There was an observation that the Online Committee handles the presentation of content, while this initiative is concerned with the generation of content.

17) **New publications (JSTIIT):** Jeffrey Andrews presented a "pre-proposal" on a new ITSoc journal. The working idea is a journal named something like the "IEEE Journal on Special Topics in Information Theory" with 4-6 special issues each year, a sub-to-pub of under one

year, featuring both core "hot" topics and intersections with other fields. Jeff outlined a number of technical, logistical, and financial benefits.

18) **New publications (IT Magazine):** Elza Erkip next discussed the possibility of an "Information Theory magazine". An IT Magazine could provide a natural place for tutorial style papers, could contain a blend of traditional IT areas and new directions, and could help expand the visibility of the IT Community by providing a venue for ITSoc members to write articles about IT in a way that is more accessible to technical communities other than ITSoc. The Magazine would play a distinct role from the Newsletter, especially as the latter is only available to ITSoc members and is not searchable.

19) **Future directions:** Matthieu Bloch presented a report he put together with Helmut Bölcskei and Aylin Yener. The report considered what is happening in ITSoc in terms of "hot" research areas, where our graduates are going, and interdisciplinary efforts in which many ITSoc members are involved. Matthieu observed that there are a number of forums in which collaborations between researchers in ITSoc and other communities are fostered, e.g., at the ITA conference, at the Nexus of Information and Computation workshop at IHP in spring 2016, via special sessions and plenaries at ISITs and ITWs. Matthieu posed the question about how the Society can structurally support such forums.

The past three initiatives were broadly supported by the BoG. An online discussion of the above conversations will be moderated by the respective presenters

20) **Chicago BoG Meeting:** Daniela Tuninetti outlined the schedule and planning for the 1 October BoG meeting.

Adjournment: The meeting was adjourned at 6:30pm CEST.