

## IEEE Information Theory Society Board of Governors Meeting

**Location:** Hotel Talisa, Vail, USA

**Date:** 17 June 2018

**Time:** The meeting convened at 1:03pm MDT (GMT-6); the meeting adjourned at 7:00pm.

**Meeting Chair:** Elza Erkip

**Minutes taken by:** Stark Draper

**Meeting Attendees:** Jeff Andrews, Alexander Barg, Matthieu Bloch, Helmut Bölcskei, Guiseppe Caire#, Robert Calderbank#, Suhas Diggavi, Natasha Devroye#, Alexandros Dimakis, Stark Draper, Anthony Ephremides#, Elza Erkip, Christina Fragouli, Andrea Goldsmith#\*, Stephen Hanly, Tara Javidi, Matt LaFleur#, Muriel Médard#, Neri Merhav#, Prakash Narayan, Alon Orlicsky, Vincent Poor, Chris Rose#, Anand Sarwate#, Igal Sason#, Lalitha Sankar#, Yanina Shkel#, Emina Soljanin, Vincent Tan#, Antonia Tulino#, Daniela Tuninetti, Rüdiger Urbanke, Emanuele Viterbo, Aaron Wagner, Tsachy Weissman\*, Michelle Wigger, Gregory Wornell, Wei Yu.

(Remote attendees denoted by \*, non-voting attendees by #.)

**Business conducted between meetings:** Between the Feb. 2018 and Jun. 2018 Information Theory Society (ITSoc) Board of Governors (BoG) meetings, a number of items of business were conducted and voted upon by email. These items and the results are summarized below:

1. Professor Raymond Yeung was elected to serve on the Nominations and Appointment Committee.
2. **Motion:** "To approve the budget for ISIT 2020, Los Angeles, USA." The motion passed.
3. **Motion:** "To support the 2018 Joint Technology Group / IEEE Information Theory Society Summer School to be held at IIT Bombay in Mumbai, India, in the amount of \$11,250 USD." The motion passed.
4. **Motion:** "To provide additional funding in the amount of \$8,000 USD to the children's book *Information in Small Bits*." The motion passed.
5. **Motion:** "To provide funding in the amount of \$30,000 USD for the production of two new educational videos in 2018." The motion passed.
6. **Motion:** "To approve the draft minutes of the February 2018 ITSoc BoG meeting." The motion passed.

At 1:00pm local time, ITSoc President Elza Erkip called the meeting to order. She started by reviewing the agenda.

**Motion:** A motion was made to approve the agenda. Elza moved, Aaron Wagner second. The motion passed unanimously.

- 1) **President's Report:** Elza Erkip presented the President's report. She started by discussing the Shannon Documentary, *The Bit Player*, the premier of which will be held here at ISIT'18 in Vail on Tuesday. The director, Mark Levinson, and the actor who plays Shannon in a 1980s interview, John Hutton, will both participate in a question and answer session after the premier; a reception will follow. Elza then reviewed the many Society members that have been instrumental to the process. These include Executive Producers Michelle Effros, Christina Fragouli, Alon Orlicsky, and Rüdiger Urbanke; Creative Producer Sergio Verdú; special thanks were extended to Elza Erkip, Emina Soljanin, and Matt LaFleur. Elza noted

that a number of Society members appear in the movie and will be credited as well. There was a round of applause from the BoG.

Elza next discussed the five-year IEEE Society Review that just finished. An in-person review was conducted in February and the report was finalized in April. The review made especial note of two things. The first was the success in the production of the Children's book *Information in Small Bits*, an initiative led by Anna Scaglione and Christina Fragouli. This project targets the youngest audience yet for the IEEE. The second were the ISIT roundtable events run by the Outreach Subcommittee, led by Jörg Kliever and Aaron Wagner. The IEEE also made five main suggestions. These were (i) to formalize interactions and engagements with both IEEE and non-IEEE entities, (ii) to be pro-active in developing a strategic plan for the Society, (iii) to expand the gender diversity amongst the associate editors (AEs) of the Transactions, (iv) to form technical committees as a method to increase membership, and (v) to develop long-term thinking in addressing the Society's financial situation.

Elza next highlighted Society awards. Frank Kschischang was selected as the Padovani Lecturer for this year's North American School of Information Theory. Alex Dimakis received the James L. Massey Research and Teaching Award for Young Scholars. Jingo Liu received the Thomas M. Cover Dissertation Award. Finally a paper published in the Transactions revived the 2018 ACM SIGMOBILE "Test-of-Time" Paper Award. This paper "Network Information Flow" was authored by Rudolf Ahlswede, Ning Cao, Shuo-Yen Robert Li, and Raymond W. Yeung, and appeared in the *IEEE Transactions on Information Theory* (henceforth the "Transactions") in Jul. 2000.

Elza next expressed condolences on the passing of Gérard Cohen. Emina Soljanin will say a few words later in the meeting.

In conclusion, Elza discussed the location of the Oct. 2018 BoG meeting. There has been a discussion of whether the third meeting of the year needs to be an in-person meeting and, if it does, whether the recent location in Chicago (scheduled just after the Allerton Conference) continues to be a good choice. There were no comments from BoG members. So, for 2018 at least, the final BoG meeting for 2018 will be held in Chicago on Saturday 6 Oct.

- 2) **Discussion on Society Values with respect to Sexual Harassment:** Elza next introduced the session on Society Values with respect to Sexual Harassment. She referred attendees to the broad discussion of these issues in society and the media and to incidents involving Society members. She remarked that these discussions and events have prompted all our members to think about sexual harassment maybe a bit more carefully than before, and have resulted in a number of activities, decisions, and conversations.

Elza described the purpose of this session as to understand where we are as a society and how we can emphasize and prioritize our values with respect to gender diversity moving forward. Elza referred to a just-released report from the National Academies of Science, Engineering, and Medicine: *Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine*. She noted that the report was commissioned prior to the #MeToo movement. Elza pointed to a paragraph from the preface of the report that noted organizational climate and responsiveness is key. She quoted the report: "However, we are encouraged by the research that suggests that the most potent predictor of sexual harassment is organizational climate—the degree to which those in the organization perceive that sexual harassment is or is not tolerated. This means that institutions can take concrete steps to reduce sexual harassment by making systemwide changes that demonstrate how seriously they take this issue and that reflect

that they are listening to those who courageously speak up to report their sexual harassment experiences.” The objective of the session is thus how ITSoc can improve our own organizational climate in respect to sexual harassment and bullying.

Elza next described how she planned to moderate the session. There would be three parts. (i) The first part involves a motion from Jeff Andrews. The goal of the motion is to assert the values of our society with respect to sexual harassment and retaliation and addresses the type of climate that we would like to have in our society. (ii) The second part involves statements from a number of ITSoc members and meeting attendees. The statements relate to the recent Title IX events at Princeton and to a letter that was sent to Princeton. Elza proposed to conduct this second part of the session in three rounds. In the first round Elza would distribute hardcopies of written statements that had been sent to her on the subject. Meeting attendees would have about 15 minutes to read these statements. In the second round, a number of people who had contacted Elza prior to the meeting would be given an opportunity to address the attendees. In the third round, Elza would ask the audience if anyone else in attendance would like to present their perspective and thoughts. In all three rounds Elza asked all attendees only to listen. This part of the session is not intended as a conversation or debate, but rather as an opportunity to hear and reflect on the perspectives of all our colleagues. At the end of the three rounds the conversation will pause. (iii) The third part of the conversation would, indeed, not be part of the BoG meeting, but rather would take place in a follow-up session on Wednesday. As with the BoG meeting, the Wednesday session would be open to all Society members. It would pick up from where we leave off today, after we have all had time to reflect on, discuss, and digest the perspectives presented here in the BoG meeting. The goal Wednesday would be to build on today’s motion and discussion to determine what concrete steps ITSoc can take to create an organizational climate that perceives that sexual harassment will not be tolerated.

Elza asked for any comments on her plan for the session. There were none. Per the proposed format, the meeting therefore moved on to the first part.

Jeff Andrews presented the following motion:

**Motion:** “The Board of Governors condemns sexual harassment in the strongest terms and affirms that the Information Theory Society will be guided by best practices as outlined in the National Academies 2018 report suggesting ‘that the most potent predictor of sexual harassment is organizational climate’ and that research communities ‘can take concrete steps to reduce sexual harassment by demonstrating how seriously’ they ‘listen to those who courageously speak up to report their sexual harassment experiences.’

“We therefore reaffirm that the guiding principle for ITSoc volunteers and members is to act ethically and respectfully towards other members, not to denigrate victims or reporters of sexual harassment, nor discourage other members from reporting sexual harassment. Volunteers and members are not to engage in any form of retaliation, bullying or cyber-bullying around sexual harassment cases. Volunteers and members are reminded that the IEEE has policies and procedures in place to handle reported violations.”

The motion was made by Jeff and seconded by Helmut Bölcskei. After some discussion and proposed modifications accepted by Jeff (see below and incorporated into the version above) the motion passed unanimously.

The first question asked in the discussion was whether the IEEE already has a policy on sexual harassment. The response was in the positive. Not only does the IEEE have a policy, but the ITSoc BoG passed a motion to reaffirm the policy in the Feb. 2018 BoG meeting. However, while the IEEE does have a statement, it is embedded in IEEE documents. In contrast, this statement would come directly from the Society. Some discussion of the wording of the original motion were raised, e.g., whether the wording would commit the BoG to follow “best practices” that it currently had not read nor considered. Some changes to the motion were made (reflected above) to adjust this, e.g., “guided by” best practices as well as to fix some typos. A question was raised as to consequence: What happens if people do engage in sexual harassment, retaliation, bullying, or cyber-bullying? There are consequences described in IEEE policy documents which we all agree to when joining the IEEE. A question was raised whether there is an obligation to report violations to the IEEE. There is no obligation to report. In fact, the Society cannot report violations to the IEEE, only individuals can report. The statement was modified to reflect this discussion in its last sentence, reminding members that the IEEE has procedures in place for reporting. The discussion then continued on to how this statement would get distributed and publicized in practice, e.g., through posting to the ITSoc website, publication in the Newsletter, highlighted in the presidential column. An analogy was made to the distribution of the ITSoc BoG Feb. 2018 reaffirmations of the IEEE Code of Conduct, IEEE Code of Ethics, and IEEE Nondiscrimination Policy, which has since been posted on our website and announced to ITSoc members via email.

The BoG next moved onto the second part of the session. Per the proposed format, Elza coordinated an open session for ITSoc members (BoG members as well as the general membership) to present their thoughts on the topic of this agenda item. Presenters included Society members who could not attend the ISIT that had submitted written statements to Elza, a number of members who had contacted Elza ahead of time requesting an opportunity to speak, and a number of meeting attendees who decided on the spot to make statements. Elza described the purpose of the session as not to adjudicate, but rather to listen to each other and to hear each others’ thoughts and opinions and to learn about each others’ experiences. She asked all to listen respectfully and to refrain from commenting on what others have said or done. The format Elza outlined (already described above) gave each person an uninterrupted time to speak to the attendees. Elza first circulated print-outs of the written statements she had received ahead of time. These included statements from (in alphabetical order) Daniel Costello, Anthony Ephremides, Robert Gallager, Andrea Goldsmith, Robert Gray, and David Tse. Elza gave attendees about 15 minutes to read through these statement. Next, Elza moved on to those speakers in attendance who had contacted her in advance. Again, these speakers spoke in (mostly) alphabetical order. These speakers included Tsachy Weissman, Anthony Ephremides (who read his written statement), Giuseppe Caire, Prakash Narayan, Robert Calderbank, Yana Shkel, Aaron Wagner, and Alon Orlitsky. Next, Elza turned to the attendees and asked if anyone in attendance would like to speak. These speakers included Jeff Andrews, Matthieu Bloch, Michelle Wigger, Muriel Médard (whom Robert Gray had asked to read his written statement to the BoG), Neri Merhav, Suhas Diggavi, Helmut Bölcskei, and Lalitha Sankar. At this point there were no further speakers.

Elza then wrapped up the session. She told the meeting attendees that she was very happy to hear from so many voices and to hear all perspectives. She saw this as the first step in a healing process, hearing all perspectives and having time for quiet introspection before moving forward. There are not clear cut sides in these issues, we need to think for ourselves personally and as a society and consider what could we have done better, and

could do better moving forward. Similar to a personal or family illness, as a society we are going through a tough period. This could be a teaching moment. She hopes that, going forward, we will become a better society than we would have been otherwise. She heard many voices just now thinking about how to move forward. We need to think about how to move forward in the context of serious consideration of the motion we have just passed. We need to recognize how impactful sexual harassment is and how we can create a climate where we do not tolerate such things. Beyond formal procedures with the IEEE, events can be below the threshold of formal complaints and yet be present in the organizational culture. She asked how we can address sexual harassment and bullying? Do we have trusted people to whom a student can go? Is there a way to address events early before things escalate? She hopes we can use this session as a starting point to go forward from. Elza thanked her fellow officers — Alon, Rüdiger, Emina, and Helmut — for helping organize this session which she felt worked out well. Elza closed by looking forward to the Wednesday session and invited attendees (and ITSoc more broadly) to think further about what to do next and to bring those ideas to the Wednesday meeting.

- 3) Treasurer's Report:** ITSoc Treasurer Aaron Wagner next presented his report. Aaron presented a plot of the Societal year-end operational surplus from 2008 through 2018. In 2009 the surplus was (positive) \$500k USD. This year the estimate is (negative) \$70k USD. The predicted loss for this year excludes new initiatives. He next described the structural changes in the budget, focusing on the profit centers of the 2015 and 2016 budgets. These include the Transactions (revenue from IEEE Xplore and subscriptions, costs due to editing, printing, mailing), conference publications (revenue from IEEE Xplore), conference surpluses (revenue from conferences, costs to run conference and to fund schools), and membership fees (revenue). Between 2015 and 2016 there was a decrease of over \$200k in ITSoc year-end profits. The main contributors to the decline include a marked decrease in IEEE Xplore revenue generated by the Transactions, and the lack of conference profits. Other increased costs included a redesign of the the ITSoc website and increased activity by ITSoc committees (these include the Distinguished Lecture Program, Women in Information Theory, mentoring round tables, the editorial board dinner, some travel, and ITSoc administrator Matt LaFleur's salary). As reported by Elza in her President's address, some of the committee activities were positively remarked on in the IEEE five year societal review.

Aaron next focused on the revenue and costs of the Transactions over the past few years. Since 2014 revenue from Transactions has been decreasing roughly linearly (from about \$900k USD in 2014 to about \$700k USD in 2017). In contrast, costs have been relatively constant in that period. ITSoc revenue from the Transactions is determined by subscriptions, the number of articles published, and the number of "clicks" (IEEE Xplore downloads). In 2015 there were 622,000 downloads of article that had appeared in the Transactions, while by 2017 that number had decreased to 463,000. Furthermore, while the number of articles that appear in the Transactions each year has held relatively constant, the total number of papers published by the IEEE grows by about 8-10% per year. Since librarians are the IEEE's main customer and they think in terms of number of articles (and not by page count), this means that the Transactions forms a shrinking fraction of the available IEEE content, which also contributes to a decrease in revenue. Aaron also looked forward. While it has not yet kicked in, the IEEE is revising the revenue model. The new model will be phased in over five years and is more "click"-driven. While Aaron anticipates a small bump in societal profits to result from the new model in the short term, in the longer term he anticipates a decrease in revenue. Aaron concluded his discussion of the Transactions by noting that the Society makes a (small) profit from the print subscriptions.

Reviewing some other trends (e.g., a very slow decrease in membership revenue, income from conferences, and the cost of supporting schools) Aaron concluded that the drop in the profit from the Transactions (from \$600k USD in 2014 to \$400k USD in 2017) is the most important trend.

Aaron then recapped societal finances for 2017 and 2018. The Society ended 2017 with a surplus of \$30k USD. The forecast for 2018 is that ITSoc will end the year with a deficit of \$68k USD. The main cause of this predicted deficit is the decrease of \$85k USD in Transactions revenue just mentioned. Aaron asked all BoG members and committee chairs to limit expenses. Looking forward to 2019, the IEEE is requesting ITSoc to submit a budget for 2019 that will attain a surplus of \$22k USD. Aaron is working on the budget. The initial draft will be provided to the IEEE in early July.

Addressing the question of whether deficits are a real problem for ITSoc, Aaron noted that at the start of last year ITSoc reserves were \$4.3 million USD, and increased to \$5 million USD due to income from investments. However, while the reserves are large, the IEEE does not “officially” allow deficit spending, i.e., it is unclear whether the IEEE would approve a planned budget for 2019 that targets a year-end loss. He reminded the BoG that after a Society has deficits in any two years out of a three-year sliding window, the IEEE can step in. Finally there was a discussion of how the Society can access its reserves for new initiatives via the “3% Rule”. (Please see minutes of other BoG meetings for detailed discussion of the 3% Rule.)

Turning to planning, Aaron then asked whether the Society should take concerted action to address Society finances. On the one hand, ITSoc has not run a deficit for a long time, the reserves are large (and running a deficit is one way to tap into them), ITSoc was forecast to end 2017 in deficit and did not, so things often have a way of working themselves out. On the other hand, the structural trends are clear, it takes time to implement change, without income the Society has less flexibility, and were the IEEE to step in the BoG and the Society would lose some control. So, Aaron concluded, it’s a matter of being proactive versus reactive. BoG members asked some questions regarding comparison to trends in other societies’ finances (since we are all affected by click rates). One difference with other IEEE societies is that, since revenue from the Transactions was historically so large, the ITSoc BoG has, to date, asked conference to target very small profits.

Aaron then proposed the following motion on forming an ad-hoc committee.

**Motion:** “Whereas: The Society is expecting operational budget deficits in the future; The BoG wishes to form a strategic plan for how to alter its revenues and costs in response to the expected deficits; and The BoG desires input on the strategic plan from a diverse set of stakeholders.

“Be it resolved: That the president shall appoint an *Ad-hoc Committee on Society Finances* with a charge to review all aspects of the Society’s finances and report recommendations on changes the Society should make in response to anticipated deficits; and That the committee shall consist of members representing publications, conferences, schools; someone who has served or is serving as Society treasurer; and others that the president may select.”

Aaron made the motion and it was seconded by Suhas Diggavi. The motion was passed unanimously

In conclusion, Aaron asked for proposals for “new initiatives” for 2019. It was discussed that new journals and magazines do not classify as new initiatives. That said, while the funding

for new publications must be drawn from operating revenue (rather than from reserves), the IEEE does understand that the cost of launching a new publication will outweigh revenues for the first few years. The IEEE will take that into account if the Society ends up with losses for the first few years of the launch.

- 4) Nominations and Appointments (N&A) Committees:** Nominations and Appointments (N&A) Committee Chair Alon Orlitsky began by reviewing the committee members (himself, Gerhard Kramer, Amos Lapidot, Rüdiger Urbanke, and Raymond Yeung) and the set of nominations and appointments that the Committee oversees (External Nominations, Awards, Massey, Cover, Shannon, Outreach Chair, IEEE Fellows, Executive Editor, Wyner, and the BoG Slate). Alon recapped appointments and nominations made by the N&A and Membership committees at the February 2018 BoG meeting. The nominations were also confirmed at that meeting by the BoG. These include Stark Draper as Chair of the Schools Committee, Antonia Tulino to membership of the IEEE Fellows Committee, Yony Murin as the ITSoc Young Professional Representative, Vincent Tan as Outreach Subcommittee Chair, and Igal Sason as Executive Editor of the Transactions. In addition since the last meeting the chair of the External Nominations committee had to step down. Last year's chair, David Neuhoff, has agreed to step in for the rest of 2018. Finally the Committee assembled a slate of 12 candidates for election to the ITSoc BoG. The election will be conducted by the IEEE. Alon then reviewed the statistics of the current BoG and the procedure followed to assemble the slate. The current BoG has 27 members, 20 men and 7 women; 20 members are from the US, 3 from Europe, 2 from Canada, and 2 from Australia. Of the 8 BoG members retiring all are male, 6 are from the US, 1 is from Canada, and 1 is from Australia. The considerations the Committee weighted in assembling the slate was qualification (in research and past contributions to ITSoc), balance (amongst levels of seniority and geographic diversity), and goals (increased involvement — only those retiring BoG members actively involved in activities were asked to stay for a second term — and acceptable attendance — all candidates were asked to attend at least two BoG meetings in person annually). He then reviewed the slate of 12 candidates, the bios of whom had been circulated to the BoG two weeks prior to the meeting. (Coming out of the committee, the slate of candidates did not need to be voted on.) Alon next reminding the BoG that revisions to the ITSoc Constitution and Bylaws are typically discussed and voted on in the October meeting. Alon next turned to the election of the ITSoc officers. At the BoG meeting names are proposed, with voting conducted online.

Alon asked for nominations to the position of second vice president: (i) Emanuele Viterbo was nominated by Helmut Bölcskei; (ii) Stephen Hanly was nominated by Alexander Barg. Alon then asked for nominations to the position of first vice president: Helmut was nominated, a nomination seconded by Jeff Andrews. Finally, Alon asked for nominations to the position of president: Elza Erkip nominated Emina Soljanin, a nomination seconded by Emanuele Viterbo.

- 5) Awards Committee:** Awards Committee Chair Emina Soljanin started by remembering Gérard Cohen. She said that Gérard was both a great coding theorist and shared her sense of humor. There have already been events organized to remember Gérard. Emina hopes that something will be organized at ISIT'19 in Paris so that Gérard's family can attend.

Emina next reviewed the Awards Committee for 2018. She started by reviewing the logistics of the Awards Committee, the membership of the committee (noting that this year's Committee included more female than male members), the spread of expertise on the committee, and the dynamics of retiring members going forward. She also reviewed the process for selecting the ISIT student paper award, and activities surrounding the Joint

Communications Society / Information Theory Society Paper Award. The Awards Committee had distributed a report on the Information Theory Best Paper Award to the BoG three weeks prior to the meeting. She talked through the nominations for the best paper award and the process followed by the Committee.

**Motion:** "To accept the report of the Awards Committee." The motion passed.

**Motion:** "To award the paper per the recommendation of the Awards Committee." The motion passed.

- 6) **Membership Committee:** Membership Committee Chair Helmut Bölcskei focused his report on the proposed reorganization of the Membership Committee. There are three main changes. First, the School Subcommittee would be moved into the Conference Committee. The Student and Outreach Subcommittees would be combined and would consist of two regular members (with staggered two-year terms) and two student or post-doc members each serving one-year terms. Finally, the number of regular members of the Membership Committee would be reduced from four to two; one would serve as chapters liaison, one would serve as WITHITS liaison. There is also one other member, the Young Professionals Representative. He also reviewed who would be the voting members of the committee and the processes for appointing the various members to the subcommittees. These proposed changes need to be incorporated into the Bylaws prior to adoption.
- 7) **Fellows and Massey Committees:** Helmut Bölcskei next turned to the Fellows and Massey Committees, both of which he also chairs. Helmut reported that this year there were eleven strong nominations for IEEE Fellow. The evaluations were submitted to the IEEE in mid-June, with decisions by Nov. 2018. He thanked the members of the Committee (Antonia Tulino, Ning Cai, Max Costa, Pramod Viswanath, Emanuele Viterbo, Hirosuke Yamamoto) for their work. He next turned to the Massey Award Committee. This committee received eight strong nominations. He thanked the members of the Committee (Tara Javidi, Erdal Arıkan, Vivek Borkar, Tom Fuja, Krishna Narayanan) for their work.
- 8) **Conference Committee:** Conference Committee Chair Emanuele Viterbo first reviewed the makeup of the committee (himself, Salman Avestimehr, Elza Erkip, Albert Guillén i Fàbregas, Brian Kurkoski, Chen Li, Alfonso Martinez, Emina Soljanin, Daniela Tuninetti, and Aaron Wagner). Emanuele reported that ISIT'17 Aachen closed with a 10% surplus. There is nothing to report about ISIT'18 Vail. ISIT'19 Paris accepted an offer to use the Conference Management System (CMS) for a three-year period. At the moment this contract is being processed by the IEEE. ISIT'20 Los Angeles has nothing to report. ISIT'21 Melbourne is now registered with IEEE. A presentation from an organizing committee to hold ISIT'22 in Helsinki, Finland, was to follow later in the meeting. There has been an expression of interest to hold ISIT'23 in New York City. Regarding ITSoc workshops, ITW'18 Guangzhou is on-track and ITW'19 Sweden is registered. The proposal to hold ITW'20 in Milan turned out to be too expensive. The organizing committee is therefore instead looking into holding the workshop at Garda Lake. The revised proposal is expected to be presented at the next BoG meeting.

Next Emanuele discussed ideas on how to reduce conference budgets. These included replacing the Award Luncheon with lighter fare, making the banquet option (e.g., through a limited registration category), selection of cheaper venues (e.g., on-campus), improving efficiencies through multi-year contracts (e.g., with CMS), and optimizing the number of coffee breaks. Emanuele proposed to have a working group to define new formats for ISIT and ITW to keep registration fees manageable while providing sufficient profits to sustain other important ITSoc activities such as schools. In the discussion the BoG was supportive



of these ideas. A question was raised about the trouble some students have in acquiring visa to attend ISIT'18 Vail. It seems visas can be a problem regardless of the country in which a conference is located.

Muriel Médard next presented the proposal to hold ISIT 2022 in Helsinki, Finland. This was a revision of a previous proposal to hold ISIT in Helsinki that had not been chosen. Muriel reviewed the experience of the organizing committee, some details about the location, ISITs previously held in Scandinavia (Sweden in 1976 and Norway in 1994), and quickly focused in on the question of venue. The organizing committee had identified two possible locals: Finlandia Hall in central Helsinki or The Otaniemi Campus of Aalto University, which is a ten minute subway ride from downtown. The former option would result in a 10% surplus, the latter is less expensive so the surplus would be 20%. The organizing committee requested feedback from the BoG on which venue was preferable. After a discussion on the proximity of lecture rooms relative to one another, the availability of on-campus housing options, and whether lunch would be included (lunch is included in the Aalto campus option), the following motion was made.

**Motion:** "To hold ISIT 2020 in Helsinki." The motion carried unanimously.

To provide feedback to the organizers on the choice of venue the BoG held a straw poll. There were 4 votes to hold ISIT in Finlandia Hall in downtown Helsinki. There were 13 votes to hold ISIT on the Aalto University Campus. There were 3 abstentions.

- 9) **Schools Subcommittee:** School Subcommittee Chair Stark Draper first reviewed the Committee membership (himself, Helmut Bölskei, and Parastoo Sadeghi), the schools already held or planned for 2018 (ESIT'18 in Berinoro, Italy; NASIT'18 in College Station, TX; and India'18 in Mumbai, India), and school planned or proposed for 2019 (ESIT'19 in Sophia Antipolis, France; NASIT'19 in Boston, MA; Australia'19 in Sydney, Australia; and India'19). Stark asked all organizers to contact him early in the year prior to when the school is to be held to let him know of the intent to make a proposal. With the current severe constraints on ITSoc's budget and without sufficient notification there may not be budget available to support a school. Motions to support should be submitted to the BoG roughly one year prior to when the school will be held. Stark also discussed that one task of the Committee is to formulate "best practices" to help organizers arrange and run schools as well as to collect data on attendance. There is interest to have ITSoc support a new school in East Asia. This year ITSoc was not able to support a school in Taiwan due to budgetary constraints. The Committee aims to be able to support such a new school as a new initiative for the period 2020-2022 (new initiatives can last for up to three years). Regarding attendance at schools the BoG asked how the proliferation of "schools", beyond just those organized by ITSoc, has impacted attendance at ITSoc schools. This seemed an interesting question that could be measured through the aforementioned collection of statistics.

Next, Anand Sarwate presented a proposal to hold the 2019 North American School on Information Theory (NASIT) at Boston University. The proposal is to hold NASIT'19 over the 4th of July weekend, the week prior to ISIT'19. The hope is that this will make attending the school viable for students located on the west coast of the US. Such attendees can fly to the school in Boston one week and then continue on to Paris the next week. Housing for attendees would be provided at the (quite nice) Boston University dorms, a 15 min walk to the school. Anand reviewed the tentative technical program, four speakers have already been lined up. The budget was about \$55k USD.

**Motion:** "To support the holding of NASIT 2019 at Boston University, Boston, USA, and to support NASIT'19 in the amount of \$15,000 USD."

In the discussion of the motion the treasurer indicated that the Padovani fund now does not only support the travel and accommodations of the Padovani lecturer (the lecture is delivered at NASIT), but also contributes an additional \$10k USD to spend on student activities at NASIT. It was asked whether this was included in, or was in addition to, the \$15k request. Stark indicated that he was not aware of this \$10k USD from the Padovani fund. As the Treasurer indicated that the 2019 budget is due in early July, Stark told the BoG he would work with the Treasure to determine the funding level for NASIT'19 (and the other schools) taking into account the Padovani Funds, bringing a motion back to the BoG for email vote later in the summer. He therefore modified his original (above) motion as follows:

**Motion:** "To support the holding of NASIT 2019 at Boston University, Boston, USA, with the funding level to be determined." This motion was passed unanimously.

**10) Publications:** Transactions Editor-in-Chief (EiC) Prakash Narayan next discussed the state of the Transactions. Prakash reviewed the statistics for the Transactions. In 2013 the sub-to-epub average was 20.7 months, by the end of 2017 it had dropped to 13.7 months. He noted that the reduction in sub-to-epub time has created a bit of a bottleneck, meaning that some accepted papers experience significant delays before appearing in print; the backlog is currently a few months. Prakash then reviewed the number of submissions and page counts over the past two years (both relatively constant) and the special issue in memory of Solomon W. Golomb. Prakash next reviewed some new initiatives. These include invited (and reviewed) cross-cutting articles in ideas from information theory and emerging developments in complementary fields. The aim is to publish three to four articles per year by teams of authors. The first three of these are either currently in review or are expected to be received for review this summer. The BoG asked how these articles will be advertised. Prakash responded that they will both appear as the first article in the issue of the Transactions and will likely be further highlighted in a suitable way, e.g., perhaps with a short preamble by (at that point) former EiC Prakash Narayan. Prakash reviewed the retiring Associate Editors and thanked them for their efforts on behalf of the Transaction. He next presented a slate of new Associate Editors, whose resumes had been circulated to the BoG.

**Motion:** "To approve the slate of new associate editors to the editorial board." The motion carried unanimously.

Prakash then reviewed the shift in the shift-register. Alexander Barg will assume the position of EiC on 1 July 2018, and Igal Sason will assume the position of Executive Editor (EE) on 1 July as well. In 2019 the Nominations and Appointments Committee will present to the BoG a nomination for the next EE.

Prakash concluded his final report as EiC by thanking many people. He first thanked Sasha Barg for working closely and harmoniously with him as EE. He also worked with Igal Sason as AE and stated that Igal will make a great new EE. Prakash thanked both previous EiCs Helmut Bölcskei and Frank Kschischang for their help and advice. He thanked the Presidents of the ITSoc BoG whom he worked with: Alon and Rudi and Elza. He thanked Anand Sarwate for developing the mechanism to push the Transactions table-of-contents to the membership by email each month. Finally, he thanked the IEEE staff with whom he worked: Matt Lafleur and especially Lisa Jess (IEEE Publishing Operations) and Megan Hernandez (IEEE Periodicals). Prakash wished to go on record with a final request: He requested that once ITSoc finances have improved, that Lisa and Megan be invited to an ISIT to be recognized for their excellent service.

Following the conclusion of Prakash's report, Elza stood up to thank Prakash for all his work, for the downward trend in sub-to-pub, and for initiating the push notifications. Helmut Bölcskei added his thoughts that this is the hardest job the Society has to offer. The BoG applauded Prakash for his efforts.

**11) Online Committee:** Online Editor and Online Committee Chair Anand Sarwate next provided a status update. Anand will complete his term of service at the end of 2018. Looking forward to the change over in the role of Online Editor, Anand suggested the Society implement a shift-register system similar to that now used by the Transactions. He encouraged all Society members to click on the links in the autonomously disseminated table-of-contents; that will be good for the Transactions and for the Society. Anand wasn't sure how best to promote the Shannon documentary through the website, but figured that that should be done. The film should drive people (researchers and the general public) to the website to learn more about information theory. Anand then reviewed some technical needs of the website. The version of the content management system used by the website (Plone) will shortly become obsolete. Thus, an update (from Plone 4.x to Plone 5.xx) is needed. While the upgrade will not be cheap, it should last for five to six years. Anand reviewed the history of the (below-budgeted) spending of the Online Committee and the proposed work to upgrade the system (which will be split across two phases of one year's duration each). In 2018 the phase one upgrade of the upgrade from Plone 4.x to Plone 5.xx will occur. Some website enhancements and existing service/bug fixes will also be implemented. The contract with the developers was structured to be flexible enough that all these deliverables can fit under the statement of work for this year. In total this work would cost less than \$48k USD (the \$48k includes the Online Committee's already-allocated budget for 2018). A new contract would be issued in 2019 for phase two of the upgrade. The second phase would cost between \$32,000 and \$40,000. The allocation for those resources will be requested in the 2019 budget.

At this point in the discussion the Treasurer clarified for the BoG that the monies requested would come from new initiatives funds already accounted for in the 2018 ITSoc budget.

**Motion:** "The Online Committee requests an additional \$48k USD (\$33k + \$15k) as a new initiative to bring new and enhanced functionality for the itsoc.org site." The motion was approved unanimously.

**12) WITHITS:** The Women in Information Theory (WITHITS) Committee Chairs Natasha Devroye and Lalitha Sankar reviewed WITHITS events that had been conducted in the past couple years. Lalitha started by describing the "Samoa Circle" event that was held at ISIT'16 with topics that include the tenure process, challenges in transitions, finding good mentors, parenting as an academic, how to mentor and advise female students, and the role of gender in the academic job search and evaluation process. There were over 70 participants (both male and female). Many of the discussions initiated at ISIT'16 continued at the Allerton'16 WITHITS event. Topics of discussion at Allerton included how to work with male students that respond poorly to female mentors and advisers, advising students of opposite genders through life-events such as childbirth, and the particular challenges women face in landing academic positions. The ITA'17 lunch event focused on statistics, in particular statistics concerning gender and awards (awardees and nominations). Andrea Goldsmith led the discussion focusing on her efforts within the IEEE Technical Activities Board (TAB) to collect statistics on diversity and representation. At ISIT'17 a speed network evening was held that was attended by almost 80 students, postdocs, and faculty. The format was rotating one-minute "speed chats" with senior members of the Society. Finally, at ITA'18 the focus returned to statistics with a two-part binary questionnaire that revealed

sobering statistics on women in the workforce worldwide as well as in academia in particular. This format will be continued here at ISIT'18 with a lunch event "Know your stats". Lalitha and Natasha then looked to the future. They are both ready to step down from their roles and need new volunteers. They foresee that with the nascent move of WITHITS to within the Membership Committee the process of hand-off could be regularized. Elza then stood to take the opportunity to thank Natasha and Lalitha for their work. She emphasized that the events are not just for women and are more interesting when the attendance is diverse. The BoG applauded Natasha and Lalitha.

**13) Ad-hoc Committee on Diversity and Inclusion:** Elza Erkip next presented an update on the Ad-Hoc Committee on Diversity and Inclusion, the creation of which was approved at the Feb. 2018 BoG meeting. She first reviewed the membership of the committee: herself (chair), Stark Draper, Sid Jaggi, Tara Javidi, Muriel Médard, Emanuele Viterbo. In arranging the membership of the Committee the aim was to capture broad geographic and gender diversity as well as representation from the Conference and Schools Committees. Elza reviewed the initial tasks of the Committee: the collection of data and creation of metrics on diversity and inclusion, the development of best practices for conference, schools, and committees, the creation of a conference code of conduct (a direct charge of the BoG), and review of IEEE policies as well as the Title IX process.

The committee started by considering the definition of "diversity". There is quite a diversity of diversities, including gender, geographic, seniority, professional sector, ethnicity, religion, gender identity, sexual orientation, disability, and more. The Committee thereafter focused on four main tasks: (i) the collection of data on gender and geographic diversity starting with easier-to-collect publicly available data, (ii) the development of initial ideas on best practices for conference, schools and committees, (iii) the revision of the draft conference code of conduct presented to the BoG at the Feb. 2018 BoG meeting, and (iv) better understanding of IEEE and Title IX processes. Elza commented that the IEEE is also working on a general conference code of conduct, so the ad-hoc committee temporarily put task (iii) on hold, awaiting the outcome of that process.

Elza then reviewed for the BoG some of the data collected in task (i): Shannon Award (1 female awardee of 40 Shannon Award winners), IT Paper Award (no female awardees of 64 papers with 125 authors). One might hypothesize that this is a matter of seniority, but Elza pointed out that the Jack K. Wolf ISIT Student Paper Award has been awarded to 32 papers with 85 authors since 2007. Of the 85 authors three were women, though none of the three female authors were students authors; all were female faculty members. A BoG member raised the question of the composition of the nominations to these awards. Elza replied that it is much harder to garner data on who was nominated, public data only records recipients. However, going forward that data can be recorded.

Elza next discussed the gender composition of various committees. She indicated that her numbers do not include ex-officio members. Since 2004 the Awards Committee (which deals with paper awards) has had 134 members, 18 of whom were women. i.e., 13.4%. As mentioned above, Emina already noted in her report that in 2018 the Awards Committee is 50% female. In contrast, the Shannon and N&A Committees have no female members. The EiC volunteered that currently 9 of the 52 members of the editorial board of the Transactions are women, and with the new AEs coming on board that will likely increase to a bit over 20%.

Elza next turned to lessons learned. First, it is time consuming to collect data. Even the data collected by the Committee to date by took quite some time to assemble. Second, best

practices for conferences, schools, and committees need to be developed in accordance with scientific research on the subject (e.g., to expand the pool of nominees in terms of both geographic and gender diversity). Subsequently, adherence to these best practices and the impact of these practices needs to be tracked. Third, the conference code of conduct needs to align with the IEEE conference code. And, finally, ITSoc needs to work closely with the IEEE in terms of its policies and Title IX.

In summary, Elza summarized the experience of the past few months as being that a standing committee is required. This will help to track complex and evolving notions of diversity and will enable ITSoc to be in better step with the IEEE, e.g., with the IEEE Committee on Diversity and Inclusion. The charter of such a standing committee should allow it to evolve as committee members better understand the landscape of diversity and inclusion and what is needed. As one example Elza noted that, e.g., physical disabilities were not on the radar of the committee at the start, so one purpose of having a standing committee is that we are learning what diversity means as we go and, without have a group of people actively thinking about these issues, we won't realize what we don't know.

The BoG then turned to a discussion of Elza's report and the possible formation of such a standing committee. Elza was first queried about possible overlaps with WITHITS and the Outreach Committees. Elza responded that the focus of those committees is on activities, while this committee would focus on data, metrics, and best practices. A question was raised as to the need of forming a permanent (standing) committee since an ad-hoc committee is easier to wrap up. Elza indicated that while the purpose of ad-hoc committees is to have a very focused and short-term goal, questions of diversity and inclusion involve long-term goals and long-term data collection and metric tracking. These aren't focused one or two-year objectives. A clarifying question was asked whether the purpose of such a committee would simply be to collect statistics. Elza responded that the purpose of the committee would extend beyond the collection of data. For example, building on the data collection task, the committee would also track and assess metrics and would formulate best practices based on the trends observed. There was a discussion of the charter of the committee and whether the approval of the committee should wait until the BoG is presented a charter. It was pointed out that in the Bylaws of the Society the various committees are described in a rather concise fashion, perhaps because the Society is rather small. A question was asked of the precedence of ad-hoc committees becoming standing committees. As one example, the Online Committee started as an ad-hoc committee. The evolution of this ad-hoc committee would follow those lines. One BoG member voiced the opinion that if members of the community are enthusiastic we should form a committee. If needed, it can always be wound down later.

**Motion:** "Form a standing committee on Diversity and Inclusion."

After the motion was made it was pointed out that, even if the motion were to be approved, the wording of the Bylaws would still need to be approved. As some BoG members again voiced the desire to see a committee charter, as would be included in the Bylaws, prior to approval, the motion was tabled (temporarily suspended), to be reconsidered at a later BoG meeting.

**14) Journal on Selected Topics in Information Theory (JSTIT):** Chair of the JSTIT Steering Committee Jeff Andrews provided a brief update on the special topics journal. He first reviewed the history. Two motions were passed at the ITA'18 BoG meeting. The first approved the steering committee. The second approved the submission to the IEEE of a proposal of a new publication for Phase I approval. Jeff told the BoG that he would be

departing ISIT'18 early to present the Phase I proposal to the IEEE TAB and Periodicals Committee later in the week of ISIT. He noted that the IEEE Communications and Signal Processing Societies have both expressed support for the new journal and have not requested co-sponsorship. Jeff's expectation was that the proposal will be accepted. (Afterward: Indeed, following the BoG meeting the proposal was accepted at the TAB meeting.) Jeff then presented and reviewed some data previously requested by the BoG to assess the impact of the introduction of the IEEE Journal of Special Topics in Signal Processing (JSTSP) on the flagship IEEE Transactions on Signal Processing (TSP). In summary, TSP seems not to have been negatively impacted by the introduction of the JSTSP. TSP has not only maintained its page count but, in the period since the introduction of the JSTSP, TSP has generally increased both its page count and level of net income.

- 15) Magazine:** On behalf of the Ad-hoc Committee to form an ITSoc Magazine, Christina Fragouli made a short presentation. She first reviewed the rational and proposed structure of the magazine, which would build off the Newsletter. She reviewed the IEEE process for establishing a magazine. In 2018 a letter of intent was sent to the IEEE TAB Periodicals Committee. It was decided to delay the Phase I proposal until spring 2019 to avoid overlap with the above discussed proposal for a special topics journal. Next steps include the decision on the name of the magazine (Christina discussed a motion to hold a small competition to collect ideas for names), more detailed development of financial projections, and a decision on when to launch the magazine.

**Motion:** "We propose to start a competition (with an award of \$100-\$200) among ITSoc members to find a good name for the Magazine with final results by the February BoG meeting." The motion carried.

Following the motion the BoG held a discussion of the finances of the magazine. It seems that the Signal Processing Magazine (SPM) loses money every year, perhaps because of higher publication costs. This occurs even though the SPM is a very successful example of an IEEE society's magazine. A question was raised regarding how the anticipated loss from the magazine would compare to the cost of producing the Newsletter. The Newsletter costs between \$20k-\$30k USD per year to produce while, in recent years, the Signal Processing Society losses about \$100k USD a year on the SPM. It was clarified that while magazines do produce societal revenue via IEEE Xplore, the amounts are relative small in comparison to mainline transaction journals. In general, the feedback from the IEEE is that most societies have magazines to serve and help expand their membership rather than to provide income. The Ad-hoc Committee on Society Finances that is to be formed (see motion by ITSoc Treasurer Aaron Wagner, above) will help the Ad-Hoc Committee to understand better the financial context of a Magazine. With a wink, EiC Prakash Narayan recommended the title "Earn a Bit" for the magazine.

- 16) Educational Videos:** On behalf of the Committee that is working on Educational Videos, Matthieu Bloch reviewed the pilots video project. He reviewed the number of views of the first two videos that have been posted to YouTube. The video on network coding has been viewed about 9600 times and the video on space time codes about 7800 times. Two additional videos will be completed within the year, one on LDPC codes, the other on the Lempel-Ziv algorithm. The target is to have both videos completed by year end. Looking forward Matthieu reminded the BoG that funding was already approved for two more videos. Matthieu also advocated that we publicize the videos more aggressively. A BoG member raised the question whether these videos can be integrated with content from schools, e.g., videos of the tutorials delivered therein. Matthieu answered that while integration is certainly an option, the target audiences for the two are quite different. On the one hand the

educational videos that the committee is producing are aimed towards high school students while, on the other hand, the lectures developed for ITSoc schools (and therefore the videos thereof) target an expert audience.

**17) Adjournment:** The meeting adjourned at 7:00pm local time.