IEEE Information Theory Society Board of Governors Meeting Minutes

Hilton Chicago O'Hare, 9 AM-2 PM

Edmund Yeh

Present: Michelle Effros, Alon Orlitsky, Ruediger Urbanke, Edmund Yeh, Daniela Tuninetti, Anand Sarwate, Elza Erkip, Wei Yu, Abbas El Gamal, Aaron Wagner, Emina Soljanin, Jeff Andrews, Urbashi Mitra, Michael Honig, Michael Langberg, Nick Laneman, Gerhard Kramer (via WebEx), Frank (via Skype), Vijay Kumar (via Skype), Osvaldo Simeone (via Skype), Andrew Barron (vis Skype), Stephen Hanly (via Skype), Tracey Ho (via Skype)

The meeting was called to order at 9 AM Chicago Time by Information Theory Society (ITSoc) President, Michelle Effros.

1. Voting on the minutes from the June 2015 BoG meeting will be conducted over email.

2. **Motion**: Vote to approve the meeting agenda. Motion was passed.

3. Michelle presented the President's Report. Michelle first gave an update on Society finances. The Society financial outlook is good, with healthy reserves. Michelle reviewed the 50% rule, and discussed a new source of funds from the IEEE-level call for initiatives. It was suggested that the Society should at all times have a prioritized new initiatives list.

Michelle next discussed publications and events. Management of the Transactions is going smoothly, and the Transactions remain very prestigious. Symposia and workshops have been highly successful, involving a wealth of applications of information theory. The Society should foster and preserve the good will of volunteers. The Society should be aware of symposia trends and targets. We should pursue joint initiatives with other communities. IT schools are continuing with success.

Michelle next reviewed society committees, which have been very active. It was recommended that the Chapters committee continue to monitor the activity level of individual chapters. Activities for the Distinguished Lecture program should be enhanced. Regarding Fellows nominations from the Society, there is concern that the number of nominations has been small. Many society members have been nominated through other societies. Many members are not nominated until quite late in their careers. It is recommended that there be a more organized effort to nominate more members.

Michelle reviewed the hiring of Matt LaFleur as administrative assistant for the Society. The job announcement for this position was posted in late 2014. The position was half-time and therefore somewhat hard to fill. In the end, a full-time position was created with time split between the IT Society and IEEE. In this capacity, Matt LaFleur was hired in mid-2015. Matt has been very active in working with officers to facilitate duties, including scheduling, reminders, and website updates.

Michelle pointed out that one of the main aims for 2015 is to increase the level of outreach activities for the Society. The main initiatives involve building bridges to other technical communities through the Newsletter and conferences, and reaching out to the general public through the Shannon Centennial celebrations and the Shannon documentary.

Michelle expressed thanks to officers and BoG members whose terms end on 12/31/2015: Gerhard Kramer (Senior Past President), Edmund Yeh (Secretary), Elza Erkip (Chair, Conference Committee), BoG members Jeff Andrews, Mike Honig, Vijay Kumar, Emina Soljanin, and Ram Zamir. Michelle also thanked all

Society volunteers.

Michelle introduced the new officers for 2016: Abbas El Gamal (Senior Past President), Alon Orlitsky (President), Ruediger Urbanke (First Vice President), and Elza Erkip (Second Vice President). She also introduced new BoG members with terms starting 1/1/2016: Jeff Andrews, Matthieu Bloch, Suhas Diggavi, Pierre Moulin, Krishna Narayanan, and Emina Soljanin.

For 2016, the tentative BoG meeting dates are Sunday, January 31, 2016, San Diego (ITA), Sunday, July 10, 2016, Barcelona (ISIT), and Friday or Saturday after the Allerton Conference.

4. Daniela Tuninetti presented the Treasurer's Report. Daniela reviewed the main components of the Society budget. From 2014 actuals, periodicals make up 60% of the revenue, 59% of expenses; conferences make up 38% of the revenue, 35% of expenses; membership make up 2% of the revenue, 5% of the expenses.

Daniela presented the 2016 budget (as of August 2015), with a project surplus of $35.8k. Daniela then reviewed 2014 actual revenues and expenses. The 2014 actual net was $275k, compared with a budgeted net of $60k. This resulted in part from additional revenue and lower expenses from ISIT 2014. Fifty percent of the 2014 actual net has been donated to the IEEE Foundation "Shannon Centennial" Fund.

Daniela continued to the 2015 budget. The budgeted 2015 year-to-date (YTD) net was $217.1k. The actual 2015 YTD net is $162.0k. If the Society stays on track according to the budget, the end-of-year net is projected to be $70k. Daniela also projected that the worst case end-of-year net is $6.5k.

A discussion followed Daniela's presentation. It was pointed out that with large surpluses and reserves, the Society should find ways to spend beneficially. For instance, conferences with large surpluses could refund some registration fees to students. It was suggested that the financial goal of the Society should be a zero budget surplus.

5. Frank Kschischang presented the Editor-in-Chief (EiC) Report. Frank first thanked outgoing associate editors Yi Ma (Signal Processing), Venkatesh Saligrama (Signal Processing), Devavrat Shah (Communication Networks), Aaron B. Wagner (Shannon Theory) and Kyeongcheol Yang (Sequences) for their service. Frank reviewed the Editorial Board status as of October 2015. The Board currently consists of 41 Associate Editors (AEs).

The number of papers submitted to the Transactions appears to have increased (about 10%) over the past year. The page budget for the Transactions in 2015 was 8500 pages. The actual page count until October was 5764. Frank presented the acceptance and rejection rates in the past 12 months, in overall terms and by editorial area. The fast rejection rate (decision taking fewer than 30 days) is about 15.2%. Excluding decisions made within 30 days, the median time to first decision is 178 days (the overall median is 159 days). The first decision is reached within one year in 88% of cases.

Frank next made a proposal for an online discussion forum for AEs. Frank proposed to use a system called "muut" (see muut.com), which features instant view on updates since last visit, fast search, real-time posts (chat-room style), complete data export, and excellent support for mobile screens. Frank proposes a subscription to the muut MEDIUM plan costing US$48/mo (US$576 annually), which includes a non-profit discount of 50%.

Motion: To approve the expenditure of US$576 for a one-year subscription to the muut MEDIUM plan. Motion was passed.

Frank continued with a proposal for the creation of a Managing Editor position. Frank pointed out that the EiC job is demanding, requiring one to two days per week on average. To alleviate the load, Frank recommends adopting a shift-register model by appointing a Managing Editor (ME) who will transition into Editor-in-Chief after 18 months, upon appointment of next ME. The ME would be responsible for day-to-day paper handling/assignment, dealing with authors and AEs, and interacting with ScholarOne. The EiC would take overall responsibility, be responsible for producing issues, handle appeals, interact with IEEE Production Portal, recruit new AEs (in consultation with ME and EEB), write reports, and make presentations.

A discussion followed. It was agreed that the IT EiC position is very demanding and should be supported with some decentralization. It was suggested that the proposed change is minimal, and could be supplemented by other support, such as area editors. The proposed change would require BoG approval but does not require bylaw changes. Informal support for Frank's plan was noted.

6. Gerhard Kramer presented the Nominations and Appointments Committee report. Gerhard first discussed the Board Election for the 2016-2018 term, and congratulated the new and returning board members (see President's Report above). For 2016, the Fellows Committee will be chaired by Helmut Bolcskei, with Emre Telatar, Bert Hochwald, Vijay Kumar, Roy Yates, Emanuele Viterbo and Emina Soljanin as members. The Cover dissertation award committee will be chaired by Andrew Barron and Ruediger Urbanke (ex officio), with Ezio Biglieri, Ian Blake, Alex Vardy, Ueli Maurer, and Wei Yu as members.

7. Gerhard Kramer presented the Constitution and Bylaws Committee (CBC) report. The CBC proposes that a new bylaw be added to make the Massey Award sub-committee part of the Awards committee. The proposed text with context is as follows (with new text in italics).

"A subcommittee of the Awards Committee shall be responsible for selecting the recipient of the IEEE Information Theory Society Thomas M. Cover Dissertation Award, according to Article VII, Section 8. *Another subcommittee of the Awards Committee shall be responsible for selecting the recipient of the IEEE Information Theory Society James L. Massey Research and Teaching Award for Young Scholars, according to Article VII, Section 9.*"

A vote to approve the bylaw change will be conducted over email.

8. Elza Erkip presented the Conference Committee Report. Elza first presented the budget for ITW 2017 in Kaohsiung, Taiwan. Two versions of the budget are available with 7.5-10% surplus. There is a 3-day low student registration fee. The workshop has received a $15.5k government grant to cover speaker costs, and a $10k IEEE loan to cover preliminary payment of publication costs and down payment for the venue, banquet, etc. The conference committee recommends BoG approval of the budget and the loan request.

Motion: To approve the ITW 2017 budget and a $10k loan to cover preliminary expenses. Motion was passed.

Elza moved to discuss technical co-sponsorship of ITA 2016. Conference committee recommends BoG approval.

Motion: To approve technical co-sponsorship for ITA 2016. Motion was passed.

Elza discussed the feedback on semi-plenary sessions at ISIT 2015. According to a post-conference survey, the feedback has been mostly positive: 79% said semi-plenary sessions had improved their conference experience, and 86% would like to see the experiment continue at future ISITs. The survey combined "Yes"

and "Somewhat" responses. The conference used a special committee for selecting semi-plenary papers. Elza asked whether ISITs should continue to highlight a subset of papers. Would venue constraints at upcoming ISITs allow for that, and are there other possible formats?

A discussion followed. It was suggested that 86% is a very high percentage, and the Board could encourage this format by making sure future ISITs select venues which allow for semi-plenary sessions. This could be done by the Conference Committee at the time of soliciting conference proposals. In particular, the Committee could check whether ISIT 2017-2019 are capable of handling this format. It was felt that fewer parallel sessions is the key to highlighting papers. Perhaps poster sessions could be used to accommodate more papers. On the other hand, it was felt that poster sessions reduce the importance of certain papers, and some schools cannot reimburse travel for poster presentations.

Elza next reviewed ISIT advanced registration fees, which have been increasing since 2004, adjusting for inflation. Surpluses for ISITs have reached 20%, which is too high. Strategies for lowering the surplus should be considered. For instance, ISIT 2015 reimbursed students for registration fees even after the start of the conference. Perhaps surplus targets for ISITs should be lower. Elza also reviewed the geographical distribution of IT Society membership in comparison with the distribution of ISITs. The data suggests that both Asia and North America are under-represented by ISITs when considering Society membership.

Elza next discussed the ISIT selection process, which is back on schedule. There have been many recent ISIT proposals, some of which have unfortunately been turned down. Organizers are asking for more feedback. Perhaps this requires more involvement from the BoG in creating a better process. Perhaps a process involving conditional acceptance (subject to an appropriate conference date) could be developed.

Elza moved on to a number of recent workshop proposals which bridge the IT Society with other communities. These include the Nexus of Information and Computation Theories workshop in Spring 2016, co-organized by Bobak Nazer, which connects the IT and computer science communities. Communications, Inference, and Computing in Molecular and Biological Systems is another such workshop taking place in December 2015, co-organized by Ubli Mitra. The workshop connects the IT and biology communities. The Society should develop guidelines for supporting such workshops. Should the support be financial or technical? How much support should be given? Should an educational component be required?

A brief discussion followed. It was suggested that workshop support take the form of initiatives.

Finally, Elza mentioned that starting from December 31, 2015, IEEE will be charging technically co-sponsored conferences $1000 per conference and $15 per paper. Thus far, the Society has not received any complaints from conference organizers and there is currently no need to discuss the Society's partly covering this fee.

9. Ubli Mitra presented the plan for a workshop on Communications, Inference, and Computing in Molecular and Biological Systems, to take place December 3-4, 2015 at the University of Southern California. In view of the increased level of interest in the intersection between information theory and biology, the workshop seeks to provide a forum to promote interaction between the two groups. The workshop will feature 12-16 invited talks (11 confirmed) and 30 posters in two poster sessions. Confirmed invited speakers include Behnaam Aazhang, Todd Coleman, Andrea Goldsmith, Olgica Milenkovic, and Mihaela van der Schaar. The targeted participation level is 50-70 participants. Costs are estimated to total $12,535 and revenues to date total $8000. The workshop would like to request support from the IT Society at $2k. This will be followed by a request to the NSF (proposal to CIF) for $2,535.

10. Anand Sarwate presented the Online Committee report. The current committee consists of Anand

Sarwate, Matthieu Bloch, Adriaan J. de Lind van Wijngaarden, Stefan Moser, and J. Nicholas Laneman. Committee activities since ISIT 2015 include bringing in Matt LaFleur to assist in website maintenance, consulting with other societies on website design, requesting and obtaining funds from IEEE for major site redesign, surveying ITSOC membership about site needs/desires, initiating redesign and upgrade process with Six Feet Up, and transferring ISIT Plenary and Shannon Lectures to hosting on Vimeo.

The committee is focusing on improving internal and end-user performance b (1) working with Matt LaFleur to make a master checklist of updates and deadlines to ensure more timely posting and updating of content, (2) overhauling and redesigning the site, (3) soliciting volunteers to assist in curating/organizing/generating content for the site, (4) reaching out to existing initiatives to offer online support.

Anand mentioned that other societies (SPS, Comm, etc.) have external hosting and site design from outside of IEEE, as well as dedicated IEEE staff webmaster who handles light maintenance.

Anand reviewed the results of the ITSoc membership survey. Problems with the site mentioned in the survey response include technical issues (slow page loads, etc), inconsistency and lack of comprehensiveness, failure to encourage exploration, the shortage of content regarding information theory in general. Features desired by respondents include (in order of popularity): more videos, archiving of old conference sites, hosting of existing conference sites, outreach material, and self-organization into interest groups. Desired content include more videos, links to social media, blogs, twitter, etc., talks/slides for general audiences (c.f. TEDtalk/Khan Academy), free technical materials or surveys, fora for people to ask questions (technical and general), regular updates and new content, methods to organize a more global audience.

Anand proposed the following work for site upgrade: providing more content; creating mailing lists for each committee; redesigning the main navigation to reduce the number clicks, modernize look and feel, and help promote the Shannon Centenary; upgrading the user management system, sub-site system, and fix load times, database issues.

The Online Committee has requested and received $45k from IEEE to defray costs. It is currently pushing upgrades (back-end) to the front of the schedule. The total expense for the proposed changes will be $47,000 to $78,000 depending on the complexity. The Committee requests authorization to spend an additional $15k (in addition to the $65k from IEEE and current budget) to expedite the proposed site changes.

Anand continued: the site now has a nascent social media presence: ITSOC Twitter account. Twenty-six videos from ISIT are up on our Vimeo page. The site is coordinating with Shannon Centenary initiatives around the web.

Anand continued with Shannon's Channel: a video initiative. Subject to approval, the Online Committee will work with Salim El Rouayheb's "Shannon's Channel" YouTube/videocast talk series. For this, talks are announced ahead on the webpage and are given using the Google+ Hangout platform. Anyone can watch the talks live and ask questions. The talks are recorded and made available on YouTube and can be watched at anytime.

Finally, Anand mentioned that the Committee has started working with Elza Erkip on investigating possibilities for conference app development.

11. Michael Langberg presented the report on the IT Newsletter. The Newsletter is currently published four times a year (March, June, September, December) in hard copy and also on the ITSoc webpage. The number of subscribers is roughly 3300. The editorial board consists of Michael Langberg (Editor since

March 2015) and the editorial committee: Frank Kschischang, Giuseppe Caire, Meir Feder, Tracey Ho, Joerg Kliewer, Anand Sarwate, Andy Singer, and Sergio Verdu.

Michael reviewed the timeline for publication of the Newsletter. The current sections include the President's column, Technical contributions, the Historian's Column, the Students' Corner (new), "From the Field", Chapter column, Puzzle Column, Reports, and Calls/Announcements. The Newsletter solicits technical contributions from the community for the community, from "adjacent" communities for the community (introduce our readers to new and exciting problems) and from the community for "adjacent" communities (broaden the influence of our society).

The Newsletter encourages everyone to share any ideas regarding potential contributions, new columns, and any interesting events/topics that need highlighting.

A short discussion followed. It was asked whether the Newsletter should become a more magazine-like publication. It was agreed that this would require a substantially bigger effort. Ubli Mitra agreed to look into such a transition ongoing for the IEEE Antennas and Propagation Society.

12. The Fellows Committee report by Rob Calderbank was presented. The 2015-16 IT Fellows Selection Committee members are Helmut Boelcskei, Andrea Goldsmith, Bert Hochwald, Vijay Kumar, Emre Telatar, Roy Yates. The committee had five strong candidates to evaluate, and provided IEEE with a rank ordering of the candidates before the IEEE deadline. Discussion of candidates was conducted by email. Each candidate was assigned to a committee member who initiated our group discussion by drafting and circulating a succinct description of the candidate's outstanding contributions. Contributions to the email discussion were collected by the Chair, shared with committee members as the discussion proceeded, and they formed the basis for assignment of scores at the end of the process.

The number of nominations is cause for concern. When there are few candidates the expectation is that not all will be elected, so well-qualified candidates start to make the calculation that their chances are better if their nominations were submitted to the Communications and Signal Processing societies. While it is disappointing to have only five candidates, it is a unusual to have five strong candidates. If it is because members of our community delay making nominations until a candidate is well above the bar, then we may want to change our practice.

A discussion followed. It was suggested that the Society provide guidance on the timeline for applying for Fellow. It may be helpful to generate a list of members with associated IEEE grade. More names should be suggested to the Fellows Committee by for instance, former Fellows Committee members.

13. Ruediger Urbanke presented the Membership and Chapter Committee report. The committee is working on an archiving tool for committee tasks which will keep old folders as archive and prepare new folders for successors every year.

The Committee is closely monitoring the activities of chapters around the world. The UK and Ireland as well as the Norway chapters were to be dissolved, but Yossy Sayir and Deniz Gunduz have stepped up to save the UK chapter. The Washington, Kitchener-Waterloo, Philadelphia, South Australia, and Russia chapters are currently on the watch list. New chapters have been started in India (Madras), Italy (Marco Dalai, Ezio Biglieri, Michele Zorzi), and Chicago (Daniela Tuninetti).

For 2014-2015, the Distinguished Lecturer Program hosted Guiseppe Caire (Macedonia), Frans Willems (South Africa), Gerhard Kramer (Spain) and Suhas Diggavi (Canada).

14. Osvaldo Simeone presented the Students Subcommittee report. The subcommittee is currently co-chaired by Osvaldo and Deniz Gunduz. Student/postdoc Volunteers for the subcommittee are Jonathan Scarlett (EPFL) and Bernhard Geiger (TUM).

At ITA 2015, the subcommittee co-organized a panel discussion on "101 reasons to study IT" with the Outreach subcommittee. The panelists were Ubli Mitra, Andrea Montanari and Emina Soljanin. The event had very high attendance. At ISIT 2015, the subcommittee organized lunch with Shannon awardee Rob Calderbank. The interview from the event will be available online soon. Expenses for the ITA 2015 and ISIT 2015 events total $3,500. Other initiatives include the introduction of a new "Student Column" in the IT Newsletter (in collaboration with M. Langberg).

For 2016, the subcommittee will select a faculty co-chair to replace Deniz Gunduz, extend membership to students/postdocs with the aim of enhancing diversity and establishing a presence in Asia and Latin America, continue with the ITA panel and ISIT Meet the Shannon Awardee events. The budget for 2016 is set at $5k.

15. Alon Orlitsky presented the Schools report on behalf of Aylin Yener. For 2015, all schools have concluded. The European school took place in April (reported presented in Hong Kong). The North American school took place in August. The East Asia school, India school, South Africa school, and Australia took place in June 2015, July 2015, August 2015, and November 2014, respectively. No report has been received for these schools yet.

For 2016, The European school (Chalmers, Sweden) was approved at ITA 2015. The North American school (Duke, NC) was approved at ISIT 2015. The Australian school (Monash) was also approved at ISIT 2015. The preparations for these schools are all on track. The proposal for the India school has been received and is being reviewed by the School Subcommittee (current members: Michael Gastpar, Stark Draper, Young-Han Kim, Alex Dimakis, Gerhard Kramer, Ruediger Urbanke and Aylin Yener).

16. Aaron Wagner presented the Outreach Subcommittee report. The Subcommittee members are Joerg Kliewer, Aaron Wagner, Bobak Nazer, Tara Javidi, and Michele Wigger.

At ISIT 2015, the Subcommittee organized the panel discussion "The 99 Biggest Career Mistakes and How to Avoid Them" with panelists Elza Erkip, Alex Dimakis, Ruediger Urbanke and Madhu Sudan. Tara Javidi moderated. The event had an estimated 120 attendees. The event video will be posted to itsoc.org.

Aaron discussed the Mentoring Program, which currently has 34 pairings. Some reported problems include (1) few new applications, (2) only a few pairings really stick, and (3) a small pool of mentors. Aaron pointed out that mentees arguably need a mentoring network more than a single mentor. Perhaps we should help mentees identify their network instead of "assigning" mentors. For junior faculty, some key questions for identifying a mentoring network are (1) who could read your CAREER proposal? (2) who could you consult about work/life balance? (3) who could nominate you for IEEE Senior Member/Fellow? (4) who could you consult about tenure issues?

One idea is to have an ISIT event centered around mentoring. This could involve "speed mentoring," a mixer with prompted discussion, having senior ITSoc members available to discuss work/life, tenure, publication troubles, etc.

17. Anand Sarwate presented the WITHITS committee report on behalf of Negar Kiyavash. At ITA 2015, WITHITS held a luncheon, which served as an informal setting for networking. The main aim was to recruit more members, especially from the student, and postdoctoral body. Discussions items included (1)

for students and postdocs, positioning IT graduates successfully for getting academic positions and giving good job talks; (2) for junior faculty: how to choose and successfully advise students, how to get research grants.

At ISIT 2015, WITHITS held an event which included two networking and mentoring oriented games. Natasha Devroye and Lalitha Sankar ran the meeting. The event had about 30 participants. The aim of the event was to encourage a sense of community by finding what the participants had in common with each other.

18. Ruediger Urbanke gave an update on the activities of the Shannon Centennial Planning Committee. The committee consists of Christina Fragouli, Michlle Effros, Ruediger Urbanke, and Lav Varshney. The committee's mission is to plan and coordinate events for Shannons Centenary, and to make the general public aware of Shannons contributions.

Ruediger introduced a crowd-sourced logo for the Shannon Centennial celebrations. The committee has contacted various schools concerning the Centennial celebrations. A Wikipedia entry has been created for the Shannon Centenary, and the ITSoc website is featuring the event. Emre Telatar and Greg Wornell are working to list Shannon's contributions as an IEEE Milestone. A number of volunteers are designing posters featuring different aspects of Shannon's contributions. Joerg Kliewer, Aaron Wagner, and Anand Sarwate are interacting with Reddit, and Eren Sasoglu and Ardan Arac are interacting with Google to feature the Shannon Centenary. Ninoslav Marina is working to place Shannon's image on a stamp in Macedonia.

Further ideas for the Shannon Centenary include the production of a five-minute video, contacting local science and technology museums (e.g. Math Museum in New York, Computer Museum in Palo Alto), and contacting radio and local press regarding the celebrations.

19. Michelle Effros presented a progress report on the Shannon documentary. The film maker Mark Levinson (Particle Fever) is writing the treatment, which is scheduled for completion next week. The proposed budget is currently $600k. Funds raised or pledged to date total more than $415k. The target distribution channels for the documentary include public broadcasters, direct distribution, film festivals, and educational distributors. Early conversations regarding these are underway. Michelle welcomes help or involvement in this project. Michelle Michelle noted that the IT Society will own the film and can decide its contents, while IEEE will need to give approval for its release.

The meeting was adjourned at 1:45 PM.