Update on the online instruction initiative

Presentation to the IEEE Information Theory Society Board of Governors

October 1st 2016
Creating an online video forum for information theory and applications.

- **Expository lectures**: Expository talks of ideas from experts in the field.

- **IT hall of fame**: Repository and history of impactful ideas and people from IT.

- **Nascent research**: Talks on new ideas to foster collaboration, *e.g.*, a talk that goes with Arxiv posting.

- **New research directions**: Inviting people from within and outside IT community to talk about ideas that enable new research directions.

- **Non-academic outreach**: Create forums for interactions with industry in various domains.
Initial ideas

Expository lectures:

- Curated (invited) talks by experts on topics. Could be either completely online or part of a presentation at a venue.
- Create a “named” lecture and perhaps honorarium to make it attractive?
- Include into this plenary talks at ISIT, ITA, ITW, Allerton etc.
- Longer tutorials and lectures from ISIT, IT schools etc.
- Create a repository so that people can learn about topics as a “one-stop” portal.

IT hall of fame:

- Create talks and “interviews” on ideas and people with historical impact.
- Not just technical but also the story behind the ideas.
- Capture the historical impact of IT on technology and society.
Initial ideas (Contd.)

Nascent research:
- Enable dissemination of new ideas within IT community to enhance collaboration, *e.g.*, a talk along with Arxiv posting.
- Not strongly curated, but have a distributed model like in TCS+
- Initial effort: Shannon Channel by Salim El Rouayheb at http://www.ece.iit.edu/~salim/Shannon.html

New research directions:
- Curated (invited) talks by people exploring new directions.
- Also invite experts outside traditionally IT community.
- Create incentives for such talks, both within and outside IT community.

Non-academic outreach:
- Short forums within conferences/workshops or at Universities to attract industrial participants (online or physical presence).
- Exchange ideas from academic research and industrial research.
Mechanics

In the process of forming the following committees.

**Steering committee:**
- Mix of senior and junior people to guide all aspects of effort.
- Curate invited talks (expository, new directions etc).
- Create opportunities for industry forums.

**Organizing committee:**
- Lightly curate the talks on nacsent research.
- Maintain online portal (live events with Google hangouts & archive with youtube channel?) and technical support.
- Help with mechanics of events and talks.

**Financial committee:**
- Financial management of efforts (co-ordinate with IEEE?)
- Create and give guidelines for event funding.

**Co-ordination:** Would welcome co-ordination with other committees, online, Shannon centennial, mentoring, outreach, WITHITS etc.
**Budget request:** We have put in a budget request for $10K for the following activities:

- Creating invited and curated lectures, either online or recorded/streamed from a seminar location.
- Honararium for speaker and/or logistical costs as well as technical help to stream/record/host talks.

**Online short videos:** Separate from above budget request.

- Formed committee along with Matthieu Bloch, Christina Fragouli, Alon Orlitsky and Ruediger Urbanke to create short videos on topics where IT society has broader impact.
- Currently in negotiations on this for 1-2 short videos (Bloch has more details).