TUG 2020: A report and future recommendations

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This document expresses my own opinions, and lacking, due to time constraints, are opinions of viewers and attendees of the conference. These are my recommendations for future online meetings and even in-person meetings with an online component.

The organization

The entire conference committee, Karl Berry, Jennifer Claudio, Rohit Goswami, Robin Laakso, Ross Moore, Will Robertson and Boris Veytsman worked very closely and diligently due to the time constraints, the cancellation of other TeX meetings and the wish to deliver a good quality program, despite the uncertainties of the COVID-19 pandemic around us. Two other TUG board members, Norbert Preining and Arthur Rosendahl, joined us for diligent work and late night meetings that made this all possible. I am forever indebted to them all and several other volunteers.

Early on we were grateful to attract an innovative and strong program, creating a series of conversations online and two keynote addresses with a broader appeal. Steven Matteson from Monotype and John MacFarlane from the University of California, Berkeley joined us with two master addresses. Javier Bezos and Philip Kime participated with intimate conversations on what it is like to do work on TeX and how it really gets done.

A field of very strong lecturers followed and I am very thankful to all of them for making such a nice meeting.

Hard work is required, especially if we are not able to pay hundreds of thousands of dollars for meeting organization, as some societies are doing right now. As might be expected, there are many areas that we need to improve, especially "reaching out" to a public that have not been able to attend a TeX conference before.

This report is a humble attempt to try to start that conversation.

The workshop

We started out by organizing the traditional workshop in Beginning LaTeX as TUG has done for many years. About 40% of the enrollees in the conference said they planned to participate; it was attended by 60 people at its peak. Cheryl Ponchin and Sue DeMeritt have recorded many hours of video lectures showing basic techniques and usage in both TeXmaker and Overleaf. We played three hours of it as part of the workshop.

Thirty out of the total stayed for the whole three hours, with a clear over-representation of Latin America among the attendees — most likely due to the timezone we used for this part of the conference. Attendees were engaged and the chat was used for discussion not only of the lecture, but of the methods and tools used by Cheryl and Sue.

A few of the students have commented that they watched and engaged the workshop with closed captions and automatic translation on YouTube.

My recommendations would be:

¶1. Include an Intermediate Course, expanding on the collection of videos we have started to build.

¶2. Replay the lectures in intervals of 6-hours and 12-hours later to cover most of the globe. The challenge here is to find able bodies to answer the chat, especially outside Cheryl–Sue timezones.

¶3. Create a special parallel session on Zulip, possibly named "Ask the Expert" where people would for a certain number of hours be able to engage and talk to experts on specific topics of interest, for example, BibLaTeX, Ti*k*Z, . . .

¶4. Create a library of instructional videos on LaTeX.

¶5. Create a video about help resources for LaTeX: `tex.stackexchange.com`, `learnlatex.org`, TopTeX, . . .

¶6. Develop a library of instruction on specific topics, for instance, typesetting CJK languages in TeX.

The conference had a non-trivial share of talks on "learning LaTeX". TUG could promote a special interest group in *Learning LaTeX* to analyze these and possibly expand the reach of the Workshop. Needless to say, even though it is not on the mind of most TeXnicians, the beginner's workshop is an extremely important component of disseminating TeX. With that comes one further recommendation:

¶7. Build a SIG on *Learning LaTeX*.

The conference

The program was strong and the eventual schedule of (more or less) 3 timezones in 3 days pleased all the speakers and especially the European audience. The presentation schedule, worked out mostly by Karl Berry, not only placed talks together by subject, but also offered them to speakers at a reasonable time.

The manual for chairs written by Will Robertson was fundamental to the smooth operation of the conference.

I was happy to be able to offer a document for speakers on creating and recording online presentations. With Ross Moore's processing into an accessible PDF, it remains available at `tug.org/tug2020/pres.pdf`.

Attendance

A total of 360 people enrolled for the conference and attendance at a peak was about 130, a mix of many old timers and some new faces, and quite a high percentage of anonymous viewers. (So the benefits of requiring a validated registration, mentioned below, need to be balanced against the reduced participation if anonymous viewing is not allowed.)

Coordinating a social scene complementary to the conference proved to be a bit harder than we expected. Most platforms imposed unnecessary restriction on enrollment, assignment and use and we initially moved from Zoom to Google Meet to GoTo-Meeting and finally settled on Zulip and Gather Town.

The entire social scene was set up by Rohit Goswami. We did not have much time to publicize it properly and redirect people there, but despite that, the Zulip instance had 80 people on it, some spirited discussion and hopefully people will continue to discuss there.

We ran a single ad for Gather Town at the top of the schedule page and it was well used given the timing. Groups of up to 15 people hanging out while some stragglers roamed free in the map (peak usage of around 23 people).

¶8. Evaluate the social interaction platforms to find something to complement the main platform used by the conference.

Technicalities

Next I move over to some technical issues that we should address in the interest of consistency, decreasing the workload and put more reliability in the process, by introducing more automation. This section and the next three are intrinsically related.

Zoom decides on the resolution at which to record a meeting depending on several factors including the resolution of the original source material, the server that is playing the material, and even available bandwidth. Because of this and some other limitations — one being the impossibility of muting yourself while playing any material — Zoom should be run on a server by itself, and not mixed with other tasks of the chair such as tending to email, chat or keeping the schedule of the conference.

We ran the whole conference on a flatfile database, but the frequent need to deal with:

- different roles for the same person
- talks being given by more than one person
- frequent calculations with time
- connection with Zoom API for controlling access

points to the need for an RDBMS that would simplify and automate most simple tasks. It would also systematize the development of support tools by different contributors and be more maintainable in the end.

We ended up having to deal with time in 4 different timezones: PDT, UTC, CEST and the attendee's own timezone. Most of this would have been easier with an RDBMS.

This time around, integration with Zoom and `researchseminars.org` required intense copy/paste of data, treatment of spreadsheets, etc., all of which would be simplified. So proceeding with the list:

¶9. Run the Zoom server on a dedicated machine — not laptops.

¶10. An RDBMS to make some of the services easier to implement and maintain.

¶11. Tighter integration with Zoom.

¶12. Better integration with `researchseminars.org`.

Given the short time to prepare for the conference, we did not have time to evaluate the alternatives to Zoom and Google Meet, especially open source platforms like Jitsi. Since Zoom was made available in partnership with the University of Adelaide, it is quite possible that other options are not going to be a match for that, because of the necessity to rent, set up, and maintain a good server. Nonetheless, due to the fact we are strong open source supporters, it behooves us to:

¶13. Evaluate the use of Jitsi (`jitsi.org`), MIT Unhangout (`unhangout.media.mit.edu`), and Apache OpenMeetings (`openmeetings.apache.org`) vs. Zoom

Automation

We did automate many tasks, but need to go much further. Examples are the prompter for the talks, the schedule page and the generation of the title-cards.

The work that is needed *live* at the conference, such as beginning/ending a talk and running of the announcements for the upcoming lecture, required manual labor and login privileges by the chair, and so took noticeable time and was prone to error. In addition, the list of participants, issuing of certificates, and arrangements and classifications of paper, slides and videos was done by hand. They can all be automated with `cron` and a submission suite, and the chairs should only need to act in case the schedule

gets late or some other altering occurrence, ideally via a web interface.

We should expand the prompter display interface to be a full dashboard showing all the aspects of what is happening automated in the background and how to revert anything, including small tasks like *record* and *stop recording.*

The line of thought here is to free the chair and hosts for the work of chairing and hosting. Recommendations are:

¶14. Automate the live talk on/off.

¶15. Automate displaying of the title-cards.

¶16. Automate list of participants.

¶17. Automate issuing of certificates.

¶18. Our server should automatically receive submissions from speakers and classify slides, preprints and movies for the talks, put them in the right places and update the schedule accordingly.

Redundancy

All chairs had access to all files necessary via Dropbox and this worked well, but last-minute impossibilities and even an unsuitable network connection can make the work of a chair very painful. To accommodate for that we should train and should always have available a replacement chair and a co-host:

¶19. We should have redundancy of chairs for every session — disasters can happen!

The website

The website now has a huge lack of conformity. Displaying the times in the reader timezone did require a bit more information on the page and a framework. This discrepancy should be resolved and some conformity brought to the display of this new information.

¶20. Make all pieces of the website consistent.

Social media strategy

We did not have much time to build a social media strategy, either for advertising the conference or to promote the meeting among possible attendees, and a last-minute emergency with one of the organizers almost spelled disaster. We were rescued by Rohit Goswami, who quickly built on the efforts by Jennifer Claudio and added the social rooms to the meeting. These should all be tied to the usernames used to enroll for the conference.

¶21. A social media strategy for publicizing the conference in at least four channels:

    (a) TEX user groups worldwide

    (b) Our own TUG membership

    (c) Facebook

    (d) Twitter

¶22. Automated Twitter and Facebook feed for every talk.

¶23. Ads on StackExchange.

I also emailed every author of articles in *TUGboat* over the last two years and that was an arduous task. Having a submission sequence would make that an easy operation.

¶24. Invite submissions by authors of *TUGboat* and other TEX publications.

More volunteer help

More volunteers with the conference are always welcome. We can use help managing the chat streams on Zoom, YouTube and Zulip during the workshop and conference:

¶25. Manage the chat in YouTube and feed back into the Q&A.

¶26. Help with the chat on Workshop.

¶27. Help with "Ask an Expert".

Work coordination

Assignment and cooperation of work among volunteers is always a hard issue because of people's availability and set of skills, nonetheless we should use systems that permit a more transparent and easier to deal with list of assignments and expectations.

The back room chat of organizers in WhatsApp was fundamental to solve a few problems. Same goes for sharing all files for the conference in Dropbox.

¶28. Use a task management like Asana, Trello, etc., for work coordination.

¶29. Use preset online meetings for touching base on difficult issues.

¶30. Texting on WhatsApp for backroom of the conference organizers.

Speakers

The work and interaction with speakers is not simple. We have spent more time processing 5 (problematic) talks than the other 35 added together. Some stricter guidelines are called for because of the added work necessary to check the videos.

The live talks worked wonderfully well, but to keep things consistent in Zoom, we should give stricter directions to speakers on setting the resolution of their monitors. That will help obtain a smoother and consistent recording of all talks.

Some talks are written to be pre-recorded (Paulo Cereda's were two excellent examples of that) and some are best live (for example, Ross Moore's talks). Thus the choice should be left to the speaker, but