

*Learning the technology and e-learning lessons
from the
Masters Mental Health Recovery and Social
Inclusion
2015 Lisbon online conference*

This report covers the work of the educational technology team that went into the Lisbon conference and includes learnings from the experience that should inform the streaming of future conferences.

The conference involved delegates and presenters being present in the room or online.

The objectives were:

- To reliably stream the Mental Health Recovery and Social Inclusion conference to an online audience using Google Hangouts.
- To allow online participants to ask questions and/or comment the presentations
- To video record all the presentations.

The objectives were met.

We additionally wanted to stream the conference live through a high-end camera and microphones via Google Hangouts. Although this setup allowed us to make high quality recordings of the presentations, we were unable to use the camera for the streaming element of the work. We were however able to keep using Google Hangouts for the conference.

Planning

The team have experience of streaming live events from our campus and have significant amounts of equipment for these events. However, we had not streamed a day-long conference live from a location abroad before so the overall planning started weeks before the conference.

Proof of Concept work

There was a clear ambition to produce the highest possible quality live streaming experience for delegates. As such, much of the early work was aimed at understanding what was

possible given that the conference was abroad. The work centred on using the high-end video cameras and microphones available to stream test presentations.

The nature of the work meant that this was time consuming; each session required the setting up of all the equipment needed to test the different interactions online, for example can we ensure that delegates in the room can hear questions asked remotely and can delegates online hear questions being asked in the room? On a number of occasions it wasn't clear if the task we had set was actually achievable and this required significant investment from the team to resolve. The way in which the team applied their different expertise to the resolution of technically non-trivial problems was one of the main positives that came out of the work.

Additionally, the Lisbon conference acted as a catalyst for work that was already going on in the area of live streaming; work plans that were intended to be completed by the end of April were completed by the beginning of February.

So, although the results of the proof of concept work were to rule out some approaches to live streaming for the conference itself, it has provided an excellent basis for other live streaming work, for example on campus.

A more practical output of the work was an equipment list that was needed for the conference.

Equipment

We quickly ruled out being able to take much of our equipment over to Lisbon because of logistical issues. So, we were unable to take equipment such as our mixing desk (it is mobile, but there was concern about transporting it safely), could only take one main camera and would have to use laptops rather than the fast computer we have in our offices.

Most of the necessary hardware equipment was available from UH Online, where it was not it was specified and procured. For much of this work there was an element of research involved. For example, one of the team obtained advice from Audio Video suppliers about how to measure up the equipment that we were taking so that we could accurately specify which flight cases were needed. Another member of the team researched the converters needed to connect our high-end camera to the laptop.

Single points of failure were identified and covered with alternatives, for example, if the main camera failed or the HDMI->USB 3.0 converter failed. The conference organisers had already started recording presentations that would be available if there was a total failure of the conference stream. The work of the educational technology team gave two main additional approaches to the streaming of the conference.

Basic Setup

This was one the team were familiar with; usb cameras and a conference microphone connecting to a laptop that is running Google Hangouts. The network connection is wired / wireless.

Advanced setup

A high-end video camera on tripod with two shotgun microphones connected to a macbook via an HDMI -> USB 3.0 converter and using Google Hangouts as the platform. The network connection is wired.

Practice

Once we had decided on the two setups, the work focussed on rehearsing live presentations using both setups.

This was done on several occasions in the UH Online space. Each of the team were assigned roles both in the basic and advanced setups and these were practised until we all were confident we were able to meet the objectives.

This practice work meant that we were all prepared and followed the plan and the alternative plan when it was necessary on the day. Also, the setup on the day went smoothly and quickly.

In terms of practice for presenters, opportunities were made available to presenters who were presenting online to try out the Google Hangouts platform and to make sure their technical setup was working. Where potential problems were identified, further contingencies were put in place should there be problems with presenters connecting via Hangouts. Specifically, Skype was kept in place as an alternative for online presenters.

Development Work

In order to allow delegates to register for the conference, a bespoke registration system was developed and published on the RAISE website. Additionally, the requirement for allowing comments from delegates who were not logged into the hangouts session or on YouTube meant that a bespoke comments system to allow for such comments was also developed. Because there were no restrictions on access to the commenting system, a two stage process was used whereby comments were moderated before publication to the live site.

On the day

The setup of the equipment went well, partly helped by an initial setup of equipment on the Friday before the conference. There wasn't time for sound checks with delegates partly because there were a number of requests for presentations to be updated and this took up the sound check time.

The local presentation machine was used to facilitate the use of the projector and speakers in the room. It was connected to Hangouts to offer the possibility of alternating between

slides and video stream, but unfortunately the connection was closed by a presenter early in the day and there wasn't enough time to set it up again.

There was an early problem with the video stream, specifically the sound started to loop and this was not resolved by resetting the Hangouts session. This meant that we dropped the advanced setup and went to the basic setup. What had been the Questions and Answers account became the main presentation account on Hangouts.

The audio quality is essential for the success of the online conference. Fortunately, as part of the basic setup we had at our disposal a high quality conference microphone lent from the Post-Graduate Medical School. Although the sound was patchy on occasion, the microphone allowed for presenters and delegates across the room to be heard clearly.

We responded to comments posted by online delegates (overall there were few), and encouraged presenters to take up position nearer the microphone to improve the sound quality and also to alternate the screen sharing between the web camera showing the presenter and the slides they were talking to. One of the issues of the basic setup was that we no longer were able to show the presenter and slides clearly in the same shot.

The main purpose of the Questions and Answers account was to transmit the discussion in the room to online delegates and it did this well.

This became the pattern for most of the rest of the day. Once the initial problems were resolved, things went smoothly for much of the day.

At one point, the Hangout session accidentally closed on the computer managing the Hangout session after the afternoon break. The Main issue here was that we lost the admin rights to the room after closing it, and were unable to access it again. A new Hangouts session had to be created and re-advertised on the conference website. The online participants would have missed about 10 minutes of the conference.

Finally the presentation with Larry Davidson had to be run using Skype and a headset for delegates in the room to ask questions. This was due to the main presentation machine not having a microphone to pick up sound from the room (this would have been problematic as multiple microphones in the room cause loops in the sound themselves).

Lessons learned

As noted, the conference was successfully streamed so the 'things to do differently' list will tend to improve procedural issues rather than impact overall success. The one issue that may improve the quality of future events is how to enable the streaming of the advanced setup- this was done reliably in testing but clearly issues with it remain to be resolved. All signs so far point to a change in software, probably Wirecast or Livestream Studio

Things to keep for next time

1. There was an excellent communication between the technical staff in Lisbon and us. From them, we gathered rapidly the room layout, the available resources for the conference and the available data stream bandwidth.
2. Strong planning that began weeks before the event
3. The contingencies worked well
4. Flight cases worked well
5. Conference mic worked well, but at a distance sound got flaky on occasion
6. Network plug adaptors work well.

Things to do differently

7. The computer managing the Google Hangout session should not handle any other tasks.
8. Use a conferencing system for collating presentations and videos, even some shared cloud file storage system would work; emails were very difficult to manage
9. Presentation files sent ahead of time, deadline is a week or more before conference, if presenters want to use updated presentation, they must use their own version from their own memory stick on the day
10. Videos must be available for uploading well ahead of the event (even if they don't need editing).
11. Presenter pc must be ours (i.e. not on site) and must be connected to live online session, ideally with someone manning it too, to control slideshow changes and manage other elements of the presentations.
12. You need more than one day ahead of the conference to test things, must do full run up tests in the room(s) the week before at the latest
13. Hangouts may not be the choice for full camera setup (as noted livestream looks promising).
14. Presentations that involve more than a powerpoint presentation and the presenter themselves need more preparation time.
15. The HDMI -> USB 3.0 converter needs more testing, perhaps with a different computing architecture.
16. Audio recorder on front desk (sound recorder)
17. Consider the venue in terms of its potential for disruptive background noise and interruption.

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