12 Tips for Organising a Local or Regional E-Poster Session

Abstract

E-posters have been increasingly incorporated into medical education conferences over the past few years, but since the disruption to the 'traditional' conference circuit as a result of COVID-19 pandemic in 2020 they have become a necessary tool for larger national and international conferences to support ongoing scholarship dissemination. The authors of this article also recognise the potential for smaller-scale e-poster sessions to be organised at local or regional levels to either continue, or establish new, special interest groups and smaller medical education research networks. Our 12 tips article is designed to offer practical advice to support the implementation of local or regional e-poster sessions to potential organisers and is written from the perspective of two medical educational researchers with experience of designing e-posters and organising virtual conferences which include e-poster presentation sessions.

Introduction

In 2015, Masters, Gibbs and Sandars (2015) predicted "In the not-too-distant future, we believe that e-posters will evolve to become the standard poster format, and these ideas will assist in the presentation of research at conferences through this format". However, no one could have predicted the need to utilise this tool during the COVID-19 pandemic. E-posters, alongside other video-conferencing tools, have enabled presenters to continue to showcase their work, despite face-to-face conferences being converted to a virtual platform. In a sense, they have supported the ongoing dissemination of scholarly work in a time of global crisis, particularly for larger national and international conferences which are organised months in advance and endure huge financial consequences should conferences be cancelled. Furthermore, the content, amount and speed at which new knowledge is being generated during the COVID-19 pandemic, both clinically (regarding COVID-19 and general healthcare delivery) and educationally (online teaching and assessment etc), means that the requirement to disseminate this into the wider community is arguably more important than ever; e-posters provide an excellent medium through which this can be achieved.

E-posters have many advantages over traditional (face-to-face) poster presentations. E-posters have a lower environmental impact due to a lack of printing; especially where traditional posters are plastic-laminated, and do not require shipping/transportation either to the presenter after printing, or directly to the conference (Masters et al. 2015). These factors lessen the financial burden of printing/shipping costs for the presenter, thereby being more accessible to presenters who do not have funding and avoid the logistical burden of ensuring enough printing/collection time prior to the conference. The flexibility of how e-posters can be used also allows more asynchronous presentations to be delivered; by pre-recording oral presentations to accompany the poster or allowing the presenter to speak to their poster audience virtually via video conferencing technology. All of these increase the potential to submit and present posters remotely, which is ideal for busy professionals, especially those with clinical commitments, who cannot attend the session 'live'. In face-to-face settings, e-posters have been shown to be more favourable for audience members in terms of hearing/seeing presenters more clearly, increasing accessibility to posters beyond the quick dash around the poster boards during the coffee-break, and allow audience members to be sat down rather than stood for long periods of time (Bell et al. 2006; Shin 2012). On the virtual platform, e-posters offer increased interactivity (as discussed in Tip 6). Finally, e-posters can

easily be adapted between conferences and re-used as opposed to needing re-printing in different sizes/formats to comply with individual conference guidance.

Whilst larger conference organisations have the funding and infrastructure to support highly technologically advanced conference platforms, e-poster sessions could be adapted to support scholarly dissemination at local or regional levels using more modest technological options, and in fact could encourage the establishment of new communities of practice within medical education research. We offer our 12 tips to organisers of local/regional e-poster sessions covering the four broad topics of: (a) planning an e-poster session, (b) inviting and instructing presenters, (c) conducting the e-poster session, and (d) sharing experiences with the medical education community. We hope to inspire confidence to utilise e-posters more in the long-term to support more scholarly dissemination, particularly at local and regional levels.

Tip 1. Consider Whether An E-Poster Session is Right for Your Meeting

E-poster sessions are growing in popularity and may seem more straight-forward than organising oral presentations (or full face-to-face conferences), but before committing to this format consideration needs to be given to whether they suit the purpose of your meeting. Do e-posters cater to the type of information that you would like to disseminate in your meeting, or would oral presentations/workshops be more appropriate? Also consider your likely audience: Will they be able to attend e-poster sessions 'live', or prefer to have asynchronous access to the e-posters? Finally, do you think that the audience will engage with an entirely virtual format, or would they prefer more traditional, face-to-face conference experience?

Tip 2. Gather Your Team

E-poster sessions require preparation, execution and evaluation, and each of these three broad stages are underpinned by many tasks to ensure success of the event. Whilst achievable by a single individual, this would be put huge demands on one's time and limit the creativity borne out of collaboration. Ideally, a minimum of two to three team members should be assigned to each of the three aforementioned 'stages'; this not only spreads the workload more evenly but also creates a safety-net in case of unforeseen circumstances which might affect the work-schedule, such as illness or change in work commitments. One or a small number of 'leaders', who may or may not also be members of a stage-team, would also be

advised, mainly to provide an overview of progress as well as coordinate/assign team members and make executive decisions. Below are the three stages and the common tasks inherent to that stage:

a. Stage 1. **Preparation**– Team members assigned to this first stage would enact any decisions about how the e-poster session will be conducted, including the organisation of the event into thematic sessions, how many e-posters can be presented and any limitation on audience-size. They would ensure adequate advertisement of the event, evaluate or coordinate the evaluation of submitted abstracts (by enlisting reviewers and designing appropriate submission guidelines to aid their decision-making), consider costing/funding/attendance fees and provide presenters with clear instructions and technical support if required.

b. Stage 2. **Execution**– The members of this team would need to be available to answer any queries arising on the day, including aiding attendees who have any difficulties in accessing the event or technical challenges. They would take responsibility for any moderated sessions, whereby one/more members (or an invited guest) would need to be available for live events to chair e-poster sessions. Timekeeping within and between sessions would also fall into this team's remit to ensure the overall programme kept to schedule as advertised. If asynchronous e-poster sessions are the chosen format, a team member will need to ensure the sessions are running optimally for attendees by accessing the sessions intermittently throughout the length of event. Any parallel 'live' advertising using social media during the event would also be the responsibility of this team.

c. Stage 3. **Evaluation** – This team would take responsibly for the collection and analysis of feedback from attendees and presenters (and any other parties involved such as session chairs or abstract reviewers). They would send out attendance/presentation certificates as necessary and share findings from this experience with wider community through informal channels such as social media or more formally as an academic poster, oral presentation or published article if sharing novel approaches to organising e-poster sessions.

Tip 3. Source Support and Funding

Beyond your 'internal' organisation group, as detailed in Tip 2, wider support may be available to assist the smooth-running of your e-poster session. Such support may include organisations who can support advertising of the e-poster session, such as through email dissemination or

social media accounts. This would be especially relevant if the e-poster session was being organised for a Special Interest Group which was affiliated with a larger medical education organisation or Higher Educational Institution. Likewise, access to video-conferencing software or e-poster presentation websites (via an institutional subscription) may be available to one or more of the team members, which could be used to host the sessions. Although funding may not seem necessary, a small amount of money could go a long way to increase the options for virtual e-poster session platform (i.e., including those which charge a fee), hire external technical assistance if needed, and offset attendance costs (if applicable) for presenters or audience members.

Tip 4. Choose A Suitable Platform

Larger national and international conferences may have funding and IT infrastructure to design bespoke virtual 'worlds' in which their conferences are held. At a local and regional level, more modest technology is likely to be used, but there are still many format options from which to choose, such as those which are utilised for video conferencing within most departments currently.

Firstly, the organising team must decide whether the e-poster session will be conducted face-to-face, or virtually. Face-to-face conferences can incorporate e-posters in three main ways; (a) through displaying posters on large screens in dedicated rooms, which has been shown to improve visibility compared to traditional posters (Shin 2012), (b) providing computer 'stations' whereby attendees can search for and browse the 'electronic library' of e-posters at their leisure, or (c) utilising personal electronic devices by displaying QR codes around the conference or in the abstract booklet which, when scanned, load the associated e-poster onto the personal electronic device of the attendee.

Alternatively, virtual meetings can be thought of as moderated (or synchronous) versus unmoderated (asynchronous) sessions. Moderated sessions are 'live' events that presenters and audience members would attend collectively at the same time and can be coordinated through very simple video-conferencing software (e.g., Zoom, Microsoft Teams, Google Meet etc) meeting whereby the presenter would give a short oral presentation of their poster in real-time, and take questions from the audience. Alternatively, dedicated e-poster session websites could be used and offer added functionality such as managing poster submissions and allow hosting of session via a dedicated portal (e.g., www.posterpresentations.com ,

www.ipostersessions.com). These dedicated services generally charge a fee, but they do potentially ease workload and technical demands of team members and may be accessed through wider organisational subscriptions, e.g., Higher Education Institutions, for a reduced cost.

Unmoderated e-poster sessions would be launched and allowed to run without a specific structure, thereby allowing attendees to explore the e-posters in a more flexible way to suit their availability. The three main platforms for hosting unmoderated sessions include a similar video-conference session to the moderated session, but where the e-posters are mounted on a self-running, timed carousel where they are displayed for a given length of time, before the next e-poster is then displayed. Instead of live oral presentation to accompany the e-poster, audio files could be embedded or played alongside. Secondly, an electronic repository (akin to Dropbox/Google folder) would allow e-posters to be deposited either as files or hyperlinks and could be organised into thematic 'folders' to guide the audience. Attendees would click these links/documents to browse the e-posters of their choice. Finally, the creation of an entire virtual conference 'world' may not be possible for the smaller e-poster sessions being discussed in this article. However, a more simplified 3D 'space' allows e-posters to be displayed in a more traditional conference/art gallery style. Within these spaces, attendees can navigate around and 'stand' in front of posters to view them at their leisure (see https://www.artsteps.com/ for an example).

Tip 5. Choose A Suitable Software/Format

This decision will be heavily influenced by the choice of platform that your e-poster session will take (See Tip 4).

Using e-posters designed in Word-processing/Presentation software (e.g., Word or PowerPoint, respectively) can be used in conjunction with video-conferencing platforms for moderated or unmoderated meetings. In each scenario, the e-poster is likely to take the form of a single page/slide within the document and can be shared during the meeting at the appropriate time (moderated session) or incorporated into a slideshow with multiple other e-posters and displayed on a timed carousel (unmoderated session).

If using an e-poster library approach, a read-only file may be preferable to reassure presenters that their e-posters cannot be modified, either by organisers or attendees who might download the e-poster, post-submission. It may be worth noting that pdf files, although often considered read-only, can be modified. Furthermore, some conferences may not consider a pdf file to be suitable to be an 'e-poster', but the decision to accept this format is at the discretion of the conference organisers and should be stipulated clearly in the same way as any other e-poster formatting guidelines.

Dedicated third-party websites may offer online e-poster design templates and tools for presenters to design their e-poster within the website platform itself. Although this can offer increased interactivity/functionality compared to the previous two options and reassures both presenter and organiser that the format is compatible with the virtual platform being used for the session, it may prevent the presenter from re-using a previous poster design which was designed in a different format (e.g., PowerPoint document).

Tip 6. Support Interactivity During the Presentation

One of the advantages of e-posters over traditional posters is the potential for increased interactivity to encourage audience engagement and improve their viewing experience. Although there is a wide range of options and tools to achieve this, these will be largely dependent on the platform and software being used for the e-poster meeting.

Considering e-poster software in two distinct categories, we can explore the different possibilities more practically. Firstly, for e-posters designed on basic word-processing/presentation software, the main options for interactivity include embedding videos and/or audio clips (Shin 2012). These clips may serve as a pre-recorded oral presentation to accompany the e-poster (which is particularly useful for unmoderated, asynchronous sessions) or used to elaborate upon/explain more complex concepts or diagrams to the audience who desire more information. Listening to audio/video is generally a more time-efficient and potentially more accessible mode of knowledge-transfer than reading the equivalent amount of text and therefore a useful tool for presenters who want to minimise the text on their e-poster without sacrificing detail. Similarly, QR codes and/or hyperlinks can be used to link to interactive quizzes, supplementary material, e.g., related published articles, or feedback surveys (with appropriate GDPR/consent permissions), to encourage the audience members to

leave suggestions or comments on the e-poster, or even a tool through which questions can be asked. The latter may also be useful should the organisers wish to gather audience votes and comments for potential e-poster prizes.

Alternatively, e-posters designed on third-party online platforms are likely to unlock more sophisticated interactivity tools. These might include zooming functions or use of 'thumbnailing' to improve readability, 3D manipulation of images and the use of on-demand audio/video clips (rather than automated versions which are easier to embed into simpler e-posters).

Both options also allow the use of live chat functions with the presenter with the audience through video conferencing or 3rd party platforms and is an important feature to maintain for moderated sessions. For unmoderated sessions, where the presenter is not available to answer questions, alternative means of question/answer sessions could be facilitated through asynchronous fora or via social media.

Tip 7. Support Interactivity After the Presentation

Compared to face-to-face conferences, online platforms more easily facilitate academic conversations and networking to continue after a meeting has drawn to a close. E-posters can be displayed and accessed long after the session has concluded (Shin 2012) via a 'post-session platform'. This will largely be influenced by the e-poster session platform and in the case of an e-library format, may mirror the original platform. For live video-conferencing moderated sessions, e-posters could be deposited in an e-library, or the session recording made available. Third-party platforms are likely to offer a repository and/or recordings of the e-poster presentations. Consider how the post-session audience will access these platforms – will they be open-access to optimise knowledge dissemination, or login/password-protected to guard intellectual property and enable organisers to charge a (reduced) fee to access the e-posters post-session.

Presenters should be clearly informed in advance how long the posters will be available for audience viewing after the event so that they can direct people to view their e-poster in a timely fashion. Organisers may wish to encourage presenters to advertise the post-conference viewing platform (e.g., e-poster library or third-party website) through such channels as social media and so again, a timeline of availability is necessary to avoid audience disappointment.

Audio/video clips, hyperlinks and QR codes that were used in the e-poster presentation should remain available and functional for the post-session audience. Finally, collecting post-session audience feedback through e-surveys can be easily achieved via hyperlinks or QR codes on the post-session platform.

Whilst face-to-face conferences more easily facilitate networking opportunities, virtual platforms can also allow audience members to contact presenters post-session provided that their contact details are readily available either on their e-poster or in the session programme. Presenters may also wish to embed a link to their v- card (electronic version of a business card/institutional profile) on their e-poster.

Tip 8. Consider Accessibility

E-posters offer increased accessibility compared to traditional posters. One can employ the use of thumbnails in word-processing/presentation software formats, or zooming functions via third-party platforms, to display larger versions of figures, graphs. 'Alt Text' (Alternative Text) is a short description of a figure/image which can be identified by screen-reading software commonly used by those with visual impairment. 'Alt text' may also prove helpful in case of technical difficulty where an image does not load appropriately, whereby the description will be displayed instead, and can be easily generated in Alt text can be easily generated within the majority of presentation software options; some programmes will even generate this text automatically. The inclusion of audio voiceover, and/or embedded videos not only offers interactivity, but also improves the accessibility e-poster for audience members with various accessibility needs and learning preferences.

The impact of blue-light difficulties for the visually impaired should also be considered. Regardless of the platform and software used, a visually aesthetically pleasing template may prove more difficult for people to read the actual content. Choosing a readable font size and type such as sans serif style fonts (an example of which is Arial font) which are often more generously-spaced, adjusting the contrasts and brightness of colours, factoring the speed and effects of animation, and ensuring that figures and graphs are not over-crowded are a few ways to improve the accessibility for the visually impaired audience (von Zansen and Craven Accessed 04/02/2021).

More information on the practicalities of building accessibility into presentations can be found on the specific presentation software websites (Microsoft Accessed 23/02/2021), and third-party websites also have information and guidance optimising accessibility whilst using their e-poster templates and platforms.

A final suggestion to help improve accessibility includes making the e-posters available electronically *before* the event to allow audience members plenty of time to read, process the information and consider any questions they would like to ask presenters, prior to the live time-pressured sessions. Similarly, this approach would aid poster competition judges to review the posters more comprehensively before deciding on the winners.

Tip 9. Advertise the Event and Select Your Presenters

Useful tools to advertise the e-poster session to potential presenters and attendees include email dissemination, social media, third-party support (higher education, medical education conferences affiliated with the specialist interest group) or a 'snowballing' approach (whereby initial interested parties are identified and asked to forward the advertisement on to others who they think may also be interested in attending). The latter is most useful if the e-poster session has either limited capacity for audience members or a very specific topic/theme.

Potential presenters should be given sufficient time to prepare their application prior to submission deadlines and given clear instructions on its format (i.e., structured/unstructured abstract, word count, file type) and the submission process (i.e., email to organiser, third-party submission portal etc).

Ensure that when presenters submit their application, they also provide contact information for communicating the outcome of their submission, and any preference of presentation delivery if there is an option of synchronous/asynchronous sessions within same meeting. For meetings organised into multiple sessions or themes, presenters may be asked to identify a sub-group/domain into which their work would best fit, and/or provide keywords to 'tag' their e-poster to allow electronic searching by audience members, if this functionality is supported by the presentation platform.

Before submissions can be selected, the e-poster session length (if moderated) and/or data storage limitations (for e-library formats) must be considered to decide how many e-posters can be accommodated. The team organising the 'Preparation' stage (Tip 2) may form the application review panel, recruit additional team members, or invite the assistance of external reviewers. Once confirmed, presenters should be informed of the outcome of their application and asked to confirm their attendance/ability to submit their e-poster. At this stage, some presenters may decline the offer to present, so having a 'reserves list' is a pragmatic consideration.

Tip 10.   Prepare Your Presenters

Once selected, presenters will require specific information to ensure that their e-posters are designed in the correct format and on-time:

- Logistical information: Presenters need to know the date and time of deadline submissions and any live events that require their attendance.

- E-poster format: This includes information about the format of e-posters, based on the decisions made regarding platform, software/format requirements, accessibility, maximum file memory (stipulated by the third-party platform or e-library capacity) and whether live or pre-recorded oral presentations are supported (and the timing guidelines for these). Given the orientation of computer screens, and that windows on tablets/mobile phones (if being used to view posters) can be rotated easily, a landscape e-poster design, rather than portrait, is optimal.

- E-poster design- This section would include details about the use of logos (both conference and institutional/funders logos), suitable fonts to optimise accessibility (sans-serif) and stipulations about presenter contact details. Presenters may be encouraged to add a photograph of themselves/their team to the e-poster to add the 'personal touch' if an oral presentation (either live or pre-recorded) is not to be used.

- Copyright issues - Like traditional posters the usual consent stipulations for patients, research participants and staff still apply but are arguably even more relevant when e-posters are likely to be circulated in the wider domain, may be accessible for a prolonged length of time and are vulnerable to be copied and disseminated worldwide via social media. Similarly, presenters need to be vigilant when using or referencing third-party sources. Most images from textbooks, journal articles and other academic

sources are likely to be registered under the creative commons licence spectrum, of which there are several different licences with specific permissions attached. Advising presenters to use their own images, 'stock' photographs/images or declare that they have permission to use images in their presentation will avoid potential legal consequences for organisers.

Tip 11.   Manage The E-Poster Session

The main elements to managing the session on the day(s) include Opening/Closing the meeting, Moderation (if required) and Troubleshooting.

Regardless of the platform being used, the likelihood is that an opening and closing presentation will be needed to bookend the e-poster session. These may be done 'live' or pre-recorded but are important to set the scene/rules for the day and welcome the attendees to the forthcoming events. Such content includes the 'rules of conduct' regarding microphones/video cameras being switched on/off if a video-conferencing platform is adopted. Recap and ensure attendees know the outline for the day and when comfort breaks will be scheduled. Establish if/when questions can be taken from audience members and how these might be submitted, i.e., using chat function, alerting the presenter by 'raising hands' to be invited to ask a question via microphone, applications on mobile devices (e.g., Slido) or specific fora embedded within a third-party platform. Audience members should also be reminded of any rules regarding copyright, including whether the session organisers agree to taking and sharing screenshots of e-posters, and encouragement of social media involvement, e.g., advertising the event live, using a pre-determined hashtag associated with the meeting or including the organisation's 'handle' (i.e., the organisation's social media account name) using the '@' function in social media posts.

The amount of input required from the organising team will depend on the chosen e-poster presentation platform and whether sessions are moderated or unmoderated.
If using a paid-for online e-poster presentation platform, the organisation may be mostly done for you, but for video-conferencing platforms, moderators may need to manage not only the timing of each e-poster being displayed/orally presented, but also any questions posted by audience members (which are usually taken at the end of the presentation).

Similarly, having some team members available to trouble-shoot is necessary in case of technical issues and access issues, e.g., attendees not being able to log in/access the website/folder/meeting.

For moderation and trouble-shooting tasks, make use of a number of organising team members to share the workload. Consider designating specific duties and 'shifts' to be covered so that each member of the team can also join (and hopefully enjoy) the conference as an attendee too!

Tip 12.   Complete Post-Event Activities

The post-event team are responsible for maintaining e-poster access after completion of the session, collecting feedback from presenters and attendees (both those who attend 'live' moderated sessions and who access the e-posters later), and disseminating knowledge gained through the e-poster session experience with the wider community.

Maintaining the e-poster access post-conference may be facilitated by a third-party platform or could simply use an e-library in which e-posters are deposited. Access to either of these post-session platforms could be provided on an open-access basis (where anyone can view the e-posters) or limited through login/access codes.

Feedback from all interested parties may be collected (and even analysed/summarised) by third-party platforms but is likely to come at a cost. Other free e-survey options are available, some with limited but adequate functionality, and can be disseminated very widely. This feedback will not only inform the organisers of how well the event was run and how to adapt for future events, but also might be useful data for potential presentation/publication regarding the use of e-posters at future academic meetings.

Finally, e-poster sessions are likely to increase in popularity over the next few years, both integrated within larger conferences and/or conducted as stand-alone events. Either way, to optimise this knowledge-dissemination tool as efficiently as possible, sharing views/experiences/challenges of organising e-poster sessions will also help others to advance future sessions.

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Practice Points

1. E-poster sessions allow dissemination of scholarly information in a flexible, accessible format for participants across the globe.

2. Conducting smaller, local or regional, e-poster sessions can support academic networks and communities of practice.

3. Organising e-poster sessions can be done without external funding and can facilitate more inclusivity for audience members and presenters who do not have conference budgets.

4. Teamwork is the key to success when organising e-poster sessions; where tasks can be allocated to pre-, during- and post-session sub-teams.

Conflict of Interest Statement

The authors declare a potential conflict of interest. Professor John Sandars offered informal guidance on the topic and draft version of the article. Prof Sandars is the associate editor for the 12 tips articles within the Medical Teacher journal. The authors requested that their article was reviewed by another associate editor to avoid any conflict of interest.

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HC co-conceived the overall topic and Tip headings for this article, drafted six of the tips and reviewed the remaining six (written by her co-author). She edited and approved the final draft and agrees to be accountable for all aspects of the work.

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