

SHARED PRACTICE GUIDE 013 – HYBRID MEETING METHODS

Rev 02-6 (colour reflects changes in text)

1. Introduction

Shared practice guides (SPG) are a vehicle to share knowledge between the u3as in the London area. They are created by collating knowledge and experiences from those u3as. They are only a guide – what worked for one u3a might not work for your u3a. If in your experience something is wrong or you disagree with something, please write in to allow an update to be created and published. It's hoped these Guides will grow over time with more shared experiences.

2. Scope

This particular SPG addresses the situation that we can start to envisage. Namely, as we come out of restrictions due to Covid-19, we can start to have some form of physical meetings again. However we probably are not going to immediately return to how things were previously for holding meetings (be they large or small). We can see an evolving transition period where we have a mix – of people meeting physically and for the same meeting some being online. We are calling this a 'hybrid' meeting. Sometimes the term 'blended' is used instead.

There isn't one simple scenario; there will be all forms of mixes and venues to consider. This SPG tries to explain answers for some of the hardware elements that can be harnessed to cover all these scenarios.

While principally written around the use of Zoom, it is expected that any of the other equivalent software programmes (eg MS Teams, Google Meet, etc) will work equivalently on most of the hardware proposed in this document (other than the specific Zoom hardware options).

3. Background

There is no 'background' in terms of what has gone before. Covid-19 is making us consider a different future and a different form of operation for many u3as meetings.

4. Learnings

This topic is new for all of us so we have no track record or learnings on this topic. However there are some techniques that in themselves can be joined up to cover the new situation of holding meetings after Covid-19.

5. Scenarios

A range of scenarios or situations can be envisaged for u3a meetings, from a small meeting in a member's home, to meetings in a pub garden or pub room, to large meetings in community halls or churches. Therefore there isn't just one solution for hybrid meetings. The following tries to cover some of this variety. Appendix 1 contains links to various hardware options.

Scenario 1 Large Meetings (eg 100 members): for example Monthly Meetings being held in large commercial venues. These are expected to have invested in required hardware. So you will be in their hands. You may just need a laptop to hook into their equipment. It may be worth moving from where you

previously met (if they don't have the required equipment) to another venue that does offer this service. See Appendix 2.

Scenario 2 Large Meetings (eg 100 members): For example Monthly Meeting being held in a large Church or hall which is not interested in providing relevant equipment. How do you get around this problem? A u3a can bring along their own equipment. This might need to include a 'mobile router', a laptop, an external camera(s), external microphone(s) and possibly a projector. This will allow showing the presentation in the hall but also filming it and by WiFi live streaming it to remote members. See Appendix 1 and 3 for hardware references.

Scenario 3 Medium Sized Meetings (eg 30 members): This might be in pub rooms or small community halls where the venue is not providing any relevant hardware. Then the u3a will have to provide its own. The specific hardware is probably as Scenario 2 above.

Scenario 4 Small Sized Meetings (eg 10): This would be in a member's house for example: The group meets once a month on the fourth Thursday of the month in a member's house. A group of up to 12 meets face to face in a domestic room 16m x 10m. One member will definitely have to join via Zoom (as living abroad) and up to four others might do so. The room has a long dining table used by the group with limited options for a screen either on a wall or freestanding. Electric sockets are available with the use of extension leads if necessary. The room has direct wireless access. The group coordinator currently leads discussions using the latest Mac Pro smaller screen version. For this sort of scenario either below (Scenario 5) can be considered or an enhanced hardware set up. The enhanced solution would include an external camera and microphone being plugged in (via USB connection) to the laptop (or Mac Pro in this specific case). See Appendix 3 for specific hardware recommendations.

Scenario 5 Small Sized Meetings (eg 10): This would be in a member's house as above. But a more elaborate set up could be considered. There are integrated hardware solutions available. These offer a large screen with multiple cameras and multidirectional microphones. These are more expensive than above and not so portable. See Appendix 4.

Scenario 6 Small Sized Meetings (eg 6): This would be in a member's house, in a small space. For this scenario the most basic set up is required. A laptop set on the table in front of the group that are meeting physically and a Zoom meeting scheduled. Remote members can then join the meeting as previously (see SPGs on Zoom if necessary). The laptop's camera and microphone will be used which means there will be limitations. The sound for remote members will be difficult. Quality of laptop microphones varies – some are more directional which means they may not pick up all the members meeting physically. Members in the room will need to keep close to the laptop (but considering the Risk Assessment and applicable social distancing requirements). Similarly the laptop's camera will not be wide angle, it will probably not pick up visually all members. However this shortcoming might not be considered a problem or a limitation that can be lived with.

6. Frequently Asked Questions and Answers

How do you edit Zoom recordings? Several software programmes, eg:

- OpenShot Video Editor – this is a fairly basic programme but it seems to work sufficiently. Essentially, all one does is put some 'Titles' around the Zoom recording and edit out a lot of the

'superfluous' talk that goes on around the session so you just end up with the Speaker's talk and the Q&A session after.

- You can use DaVinci Resolve but that's primarily for recorded music editing. Using it for cutting up a video is way over the top but it's easy to use and free.

How do you live stream to YouTube?

- **Full information not available yet.**
- Once you have your recording you then upload to YouTube. This goes on your dedicated YouTube channel with a setting that means you can only access it if you have the link to the YouTube video.

Is there an alternative to Zoom for streaming media? Consider using OBS (Open Broadcasting Service). More information here: <https://obsproject.com/>

If additional hardware is required, how is this to be shared amongst various Groups within a u3a?

- This is up to the u3a to organise. It will be an additional burden; therefore a process will need to be developed.

7. Reference Material

As this is a new developing topic there isn't much experience to date and hence a lack of reference material. The Third Age Trust's Advice section on their website has started to cover this subject and probably the amount of material will expand. You can find this at:

<https://www.u3a.org.uk/advice/running-your-u3a-covid-and-beyond/hybrid-groups>

Also Liz Thackary's presentation is a good summary:

[What are Hybrid Meetings](#)

8. Contact Point

If you have any suggestions to add to this guide or require clarification on any point please contact Derek at webmaster.londonregionu3a@gmail.com

APPENDIX 1: SHARED HARDWARE SET UP FOR SMALL MEETINGS

For many u3as most of their activities is Interest Groups held in members own homes. For example from one u3a:

Out of our 87 groups, 12 are outdoors. Out of the 75 indoor ones, 48 were in members' homes. These numbers, the split, might change post-Covid - some Coordinators might not want to carry on hosting in their houses but many will want to re-convene as they met before the pandemic.

To provide a low cost external camera & microphone at less than £100 for the pair, a u3a could support buying several 'sets' to share around groups. The number of sets procured will be governed by what the u3a can afford but also considering the associated logistics and asset management. If less are procured then the greater need to shuffle them constantly between members' houses.

A good camera (price vs quality) seems to be: [Microsoft LifeCam HD-3000](#) (not for Apple Macs and not wide angle – suitable only for about a 6m wide beam)

For others have a read here:

<https://www.techradar.com/uk/news/computing-components/peripherals/what-webcam-5-reviewed-and-rated-1027972>

Or consider just using a smartphone's camera. If you want to use a phone's camera you'll need to download an app. More info (as an example) see here:

<https://www.youtube.com/watch?v=nnbu3C1ht9Y> or

https://www.e2esoft.com/ivcam/?fbclid=IwAR2_CzusuAHRhxM8dKC2POZ0JK_2ECHUctWmMxP8MmxhXEEycREdKpF4jzU (for Windows only)

Or microphones:

[Microphone](#)

Or another one recommended: TONOR G11 conference mic. Cost about £20.

Or [Lavalier Clip](#) on mic

Or [Fifine](#) (suitable/ range only for about a 4m radius)

You might also need an external speaker – laptop speakers are often not loud enough to fill a room. These external speakers plug in using either the headphone socket or by USB socket. Examples can be seen here:

[Speaker](#)

Many others are available.

See also link for set up advice here:

[Going Hybrid: Small Meeting Hybrid Tech Setup - YouTube](#)

Connect & Learn website put together by u3a member John Hunt and his team at Exmouth and District U3a <https://sites.google.com/view/connectandlearn/videocalls>

See also further hardware suggestions at the end of Appendix 6.

APPENDIX 2: DEDICATED HARWARE SET UP FOR SMALL TO MEDIUM SIZE MEETINGS

A more expensive solution is an integrated solution. These hardware solutions offer combined speakers, microphones and/or displays rather than discrete solutions with laptops as they are more universal and should require less support. This solution, while maybe 'better', is more expensive (in the range of £250 to £500). So possibly a u3a could only afford to procure one or two of these set-ups. But if a common venue, a small hall or a regular members home then this might be appropriate.

Some of this hardware solution is not particularly portable, hence why classed as 'Dedicated', but it could be moved between some venues.

<https://blog.zoom.us/zoom-expands-to-smart-displays-at-home/>
<https://www.wired.com/gallery/best-smart-displays/>

The ones that appear best on paper at the moment are:

<https://eu.dten.com/gb/me> for a larger Group

<https://portal.facebook.com/gb/products/portal-plus/> for the smaller Groups

There is an ever increasing of market products that are addressing this new home market opportunity. One possibility is 'Zoom Home'. See more details here:

<https://blog.zoom.us/zoom-for-home-empower-remote-workers/>

Further options shown here: [Hardware options](#)

Facebook are now also offering similar hardware solutions.

At the basic end (& more portable) is:

[Portal Plus: Video calling on a 15.6" screen | Portal from Facebook](#)

(<https://portal.facebook.com/gb/products/portal-plus/>)

See also further hardware suggestions at the end of Appendix 6.

APPENDIX 3 – HARDWARE SOLUTIONS & SET UP FOR LARGE MEETINGS

We traditionally had our Monthly Meeting in a large Church (not in the Church hall) but they are not interested in providing Wifi. Can you use a 'mobile router' to allow us to live stream a meeting to YouTube for broadcast to the membership?

Yes. Suite of hardware for a solution might include:

4G & 5G Home Broadband | Three

(<http://www.three.co.uk/store/broadband/home-broadband>)

Amazon.co.uk : 5g router

(<https://www.amazon.co.uk/5g-router/s?k=5g+router>)

Best 5G router

(<https://5g.co.uk/guides/best-5g-router>)

Best 4G router and 5G router

(<https://www.4g.co.uk/news/best-4g-router/>)

Is it possible to hold a hybrid meeting by having the Speaker on Zoom remotely and using a laptop hooked up to a projector to show members in the large room the Speaker's presentation on the big screen to people attending the meeting in person?

A problem would be the computer speakers not being loud enough, but you can clip on an external speaker (or venue's speaker system) and the venue's microphone system for questions raised from the room.

The way to think about it is, the venue (& all members there) are effectively one 'Participant' on a Zoom call. The Speaker is just another Participant – a remote one, as remote members. So any laptop can have (be set up for) an external screen. Some have this already in their home but it's how many did their presentations (in Church halls or equivalent). So the ones at the Venue will see the remote presenter (& through Screenshare any slides being presented), not on ta laptop screen but through a projector, on the big screen. Spotlight feature should be used to highlight the Speaker. Other members joining only remotely will see the presentation as through any current Zoom session.

The addition might be the need for a 2nd laptop at the venue (as another Participant), with a camera plugged in (& microphone) pointing at the audience. So then the audience becomes part of the same Zoom call.

Above needs to be tested. Some u3as are trialling with their main Venues in June (after Step 4), before they hold their Monthly Meeting in July as a hybrid meeting. This Guide will be updated with those results.

See also this link:

[Going Hybrid: Large Meeting Hybrid Tech Setup - Bing video](#)

APPENDIX 4 – VENUE OFFER FOR LARGE MEETINGS

Example quote:

“We can offer the zoom option for your hybrid event, noting the camera can only be pointed at one direction (usually the top table).

Details of our zoom and base offer are:

- Host up to 100 participants (basic Zoom Pro account)
- We can Increase participants up to 1,000 with Large Meetings add-on (an additional charge would be incurred for this, if you need more than 100 people online, please advise)
- Group meetings for up to 30 hours
- Social Media Streaming (this is just through Facebook, so not ideal)
- 1 GB Cloud Recording
- Camera
- Projector

The costs to accommodate the above are:

- Video conferencing- £80+VAT
- PA system with 2 mics and sound system - £70+VAT
- Total - £150+VAT

Optional but recommended unless you have your own IT person attending: AV technician to monitor the systems throughout your event- £22+VAT/hour.

Optional: use your own Zoom account

See also Appendix 6.

APPENDIX 5 – ETIQUETTE FOR HYBRID MEETINGS

If you've read some of the many articles that address how to combat Zoom fatigue, you're already aware that there are easy ways to lessen or avoid possible burnout from too many video conferences. Just remember the following.

There's no harm in taking a meeting on the phone or using chat when a video meeting is unnecessary. Zoom Phone and Zoom Chat are excellent alternatives. If a video meeting is in the cards, keep these helpful hints in mind:

- Hide your self-view. Staring at your face can be distracting for some users.
- Minimize the Zoom screen to about one-third the size of your monitor. That way, the people you're speaking with aren't too close-up.
- Set your camera/device at a distance, or use an external camera so you can have more flexibility to move around. Or go really wild and take that meeting on the go. Join via phone and make it a walking meeting.
- If you're having one of those days, just turn off your camera from time to time and give yourself an audio-only break.

These came from the following article:

<https://blog.zoom.us/introverts-musings-on-zoom-fatigue/>

**APPENDIX 6 – TECHNICAL CONSIDERATIONS
(credit to Northumbria Region)**

Covers:

1. A meeting, perhaps of a group, in a small meeting room or at the home of a member.
2. A meeting in a large room for a monthly or regional meeting.

Zoom System requirements for Windows, macOS, and Linux

The following need to be considered when deciding to hold a Hybrid Zoom Meeting:

1. An internet connection
 - a. Broadband (wired from telephone service provider)
 - b. Wireless (3G or 4G from Mobile telecom provider)
2. Speakers
 - a. Built-in
 - b. USB plug-in
 - c. Wireless Bluetooth
3. **Microphone**
 - a. **Built-in**
 - b. **USB plug-in**
 - c. **Wireless Bluetooth**
4. A webcam or HD webcam
 - a. Built-in
 - b. USB plug-in
 - c. An HD cam or HD camcorder with a video-capture card
 - d. **Smartphone**
5. Screen
 - a. Built in
 - b. External

Supported operating systems	macOS X with macOS 10.9 or later Windows 10 (Home, Pro, or Enterprise), 8 or 8.1, 7 Ubuntu 12.04 or higher
Supported browsers	Windows: Internet Explorer 11+, Edge 12+, Firefox 27+, Chrome 30+ macOS: Safari 7+, Firefox 27+, Chrome 30+ Linux: Firefox 27+, Chrome 30+

Processor and RAM requirements

	Minimum	Recommended
Processor	Single-core 1Ghz or higher	Dual-core 2Ghz or higher (Intel i3/i5/i7 or AMD equivalent)
RAM	N/A	4 Gb

Basic Requirement to conduct a Zoom Hybrid

Minimum Equipment necessary
 Laptop Computer incorporating a Speaker & Microphone Tablet would be acceptable

Additional equipment needed to conduct a Zoom Hybrid Meeting	Requirements	Cost £
Does the Meeting Room have Broadband?	No Yes	Dongle plus SIM Card - would also require a Mobile phone 10 - 20
Does presenting equipment include an adequate Speaker?	No Yes	Speaker 10 - 20
Does presenting equipment include an adequate Microphone?	No Yes	Microphone 10 - 20
Do you want remote viewer to see speaker or presenter only?	Yes No	No other equipment needed
Do you want remote viewer to see and hear local participants?	Yes No	Mobile (?) camera and stand plus mobile (?) microphone 40 - 80
Do you want local participants to hear remote viewer?	Yes No	External speaker(s) 30 - 50
Do you want local participants also to see remote viewer?	Yes No	Large Monitor or Screen with projector or large TV ?

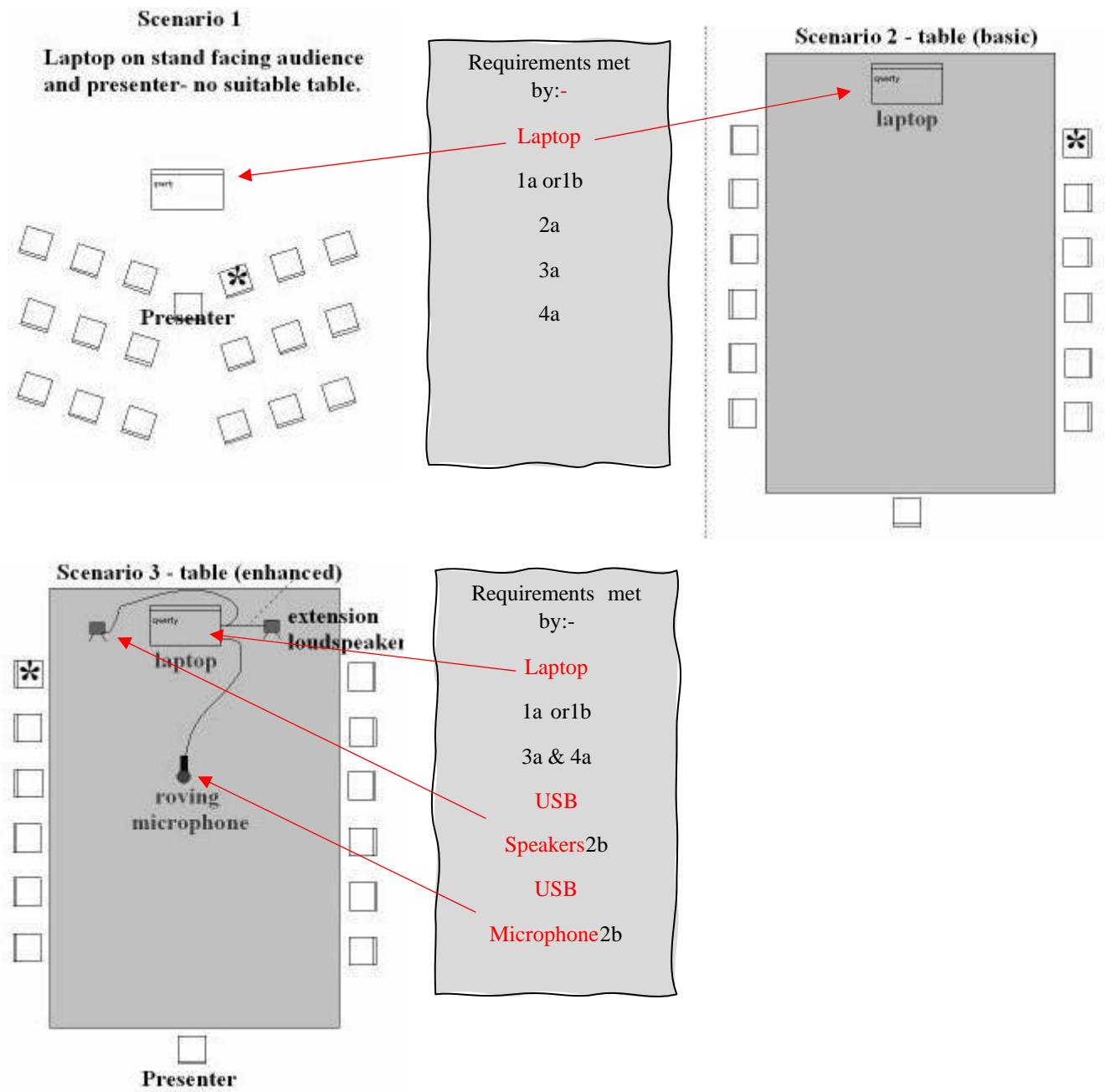
Definitions:

Local participant - person in the room where the presentation is taking place

Remote viewer - person not in the room where the presentation is taking place

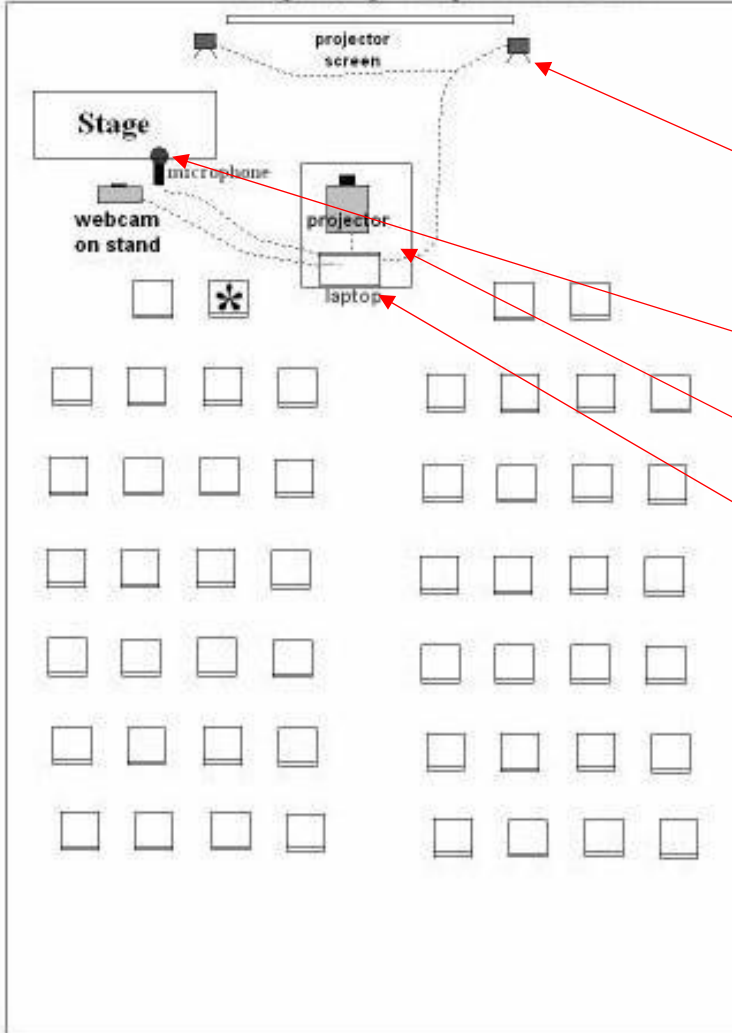
How Zoom System requirements might be met in various situations

Small Room



Large Room/Hall

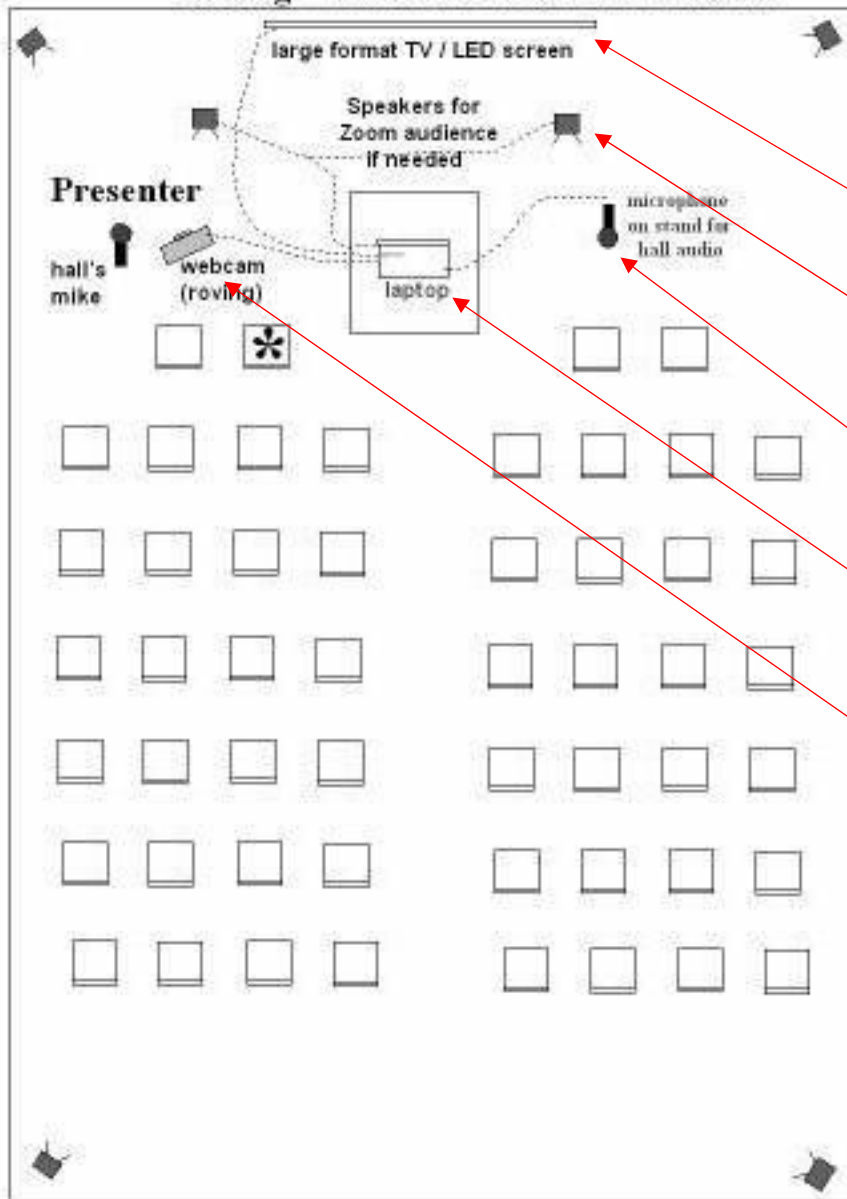
Scenario 1 - projector and extension speakers using a stage for presentations



- Requirements met by:-
- USB/Wireless Speakers
2a or 2b
 - USB/wireless Microphone
2a or 2b
 - Projector
4b
 - Laptop
1a or 1b
 - USB/wireless Webcam
3a or 3b

Large Room/Hall

Scenario 2 - LF screen using hall's built-in sound system no stage - mike and webcam can roam



- Requirements met by:-
- Projector/TV
4b
 - USB/Wireless Speakers
2a or 2b
 - USB/wireless Microphone
2a or 2b
 - Laptop
1a or 1b
 - USB/wireless Webcam
3a or 3b

Key from above layouts.

Possible equipment that could fulfil Zoom system requirements

Zoom requirements	Description	Suggestion
2b £17.99 down to £11.302b	Microphone	DISDIM PC Microphone, 3.5mm Jack Condenser Recording Microphone with Mic Stand for PC, Laptop, iPhone, iP@d, Mac, Smartphone - Gaming, Singing, YouTube, Skype (Black): Amazon.co.uk: Computers & Accessories
2b £12.12	Speakers	Logitech Z120 Compact PC Stereo Speakers, 3.5mm Audio Input, USB Powered, Integrated Controls, Cable Management Solution, Computer/Smartphone/Tablet/Music Player - White/Black: Amazon.co.uk: Computers & Accessories
3b £26.99 down to £19.11	Webcam	Webcam for PC with Microphone - 1080P FHD Webcam with: Amazon.co.uk: Electronics
2c £51.99 down to £49.99	Wireless microphone	Wireless microphone, KIMAFUN 2.4G wireless handheld microphone system with Mini Portable 3.5mm Receiver and 6.35mm Output Compatible With Smartphone, Laptop, PC, Power Amplifier and Speaker, KM-G206B: Amazon.co.uk: Musical Instruments

Note: Prices quoted as at 14th April 2021

APPENDIX 7 – LARGE HALL CONFIGURATION

(courtesy Ealing u3a)

LIVE STREAMING at EALING GREEN CHURCH

Update following Demo session on Tuesday, 25th May

There was a Demo session of the new Video Conferencing facilities at Ealing Green Church on Tuesday 25th May.

Present: Andy Bradshaw (Newtech Southern)
Hector Chidiya, Sarah Hunter, Ben ? [didn't get last name] (for Ealing Green Church)
Phil Broomsgrove, Jurek Narozanski (for Ealing U3A)

Newtech Southern are the company who have installed the Video Camera facilities at Ealing Green Church, and who also installed their original audio system and the Control Board + related equipment. The video system is integrated into the main Control Board (primarily for the audio aspects) and there is new equipment for controlling the video camera also installed on the Control Board desk.

Technical details

- The Video system consists of a wall-mounted (above the entrance doors to the main hall) video camera + 2 wall-mounted mikes to pick up ambient sound. The Marshall camera is 4K quality and has 360-degree movement plus 10 x zooming ability.
- The equipment to control the video camera is installed on the Control Desk (back of the hall) and is linked into the existing Panel (for audio controls). There is a new Video Control device with a joystick (which moves the camera around and controls focus/zooming) but this also has 9 pre-set positions for the camera, controlled by a number panel.
- There are 2 cables available on the Control Desk - one is a Network cable to allow a Laptop PC, set up on this desk, to connect directly to the new Router, rather than over wi-fi. The second is a USB cable which brings the combined video & audio signal from the video camera and sound equipment (ie. microphones, roaming or lapel).
- The new Router installed in the church hall has speeds of 72.9 mbps minimum guaranteed download, 19 mbps minimum guaranteed upload over the cable connection. It can support 5 - 8 devices connected simultaneously on wi-fi. (5 mbps is required for live streaming, so 19 mbps should be adequate for our needs)
- The feed through the USB cable can become the source for the video/audio for a Zoom session run on the Laptop sited on the Control Desk. This may require changing the video/audio settings within Zoom from its internal camera/microphone, although Andy thought these might adjust automatically.

Results of the demo

- Andy (Newtech Southern) demonstrated the different aspects of the system and we talked through the various scenarios for our Thursday meetings and how we would want to use the system. Andy did not think there were any of these that could not be satisfied, although some might require an extra piece of kit or cables.
- Our impression was that the Video system looks relatively easy to use (although we may have a slightly different experience when we are doing it ourselves!)
- The Video pre-sets available will probably be enough for our requirements for the Thursday talks, without the need for much use the joystick much.
- We also discussed with Andy/Hector linking in the large TV screens on wheels that are available in the hall, to provide a better view for our members who were sat towards the rear of the

hall. This should be possible and they can be connected via the rear floor boxes, but this is where some additional cables might be needed.

- We will need to purchase a new Laptop, which needs to be reasonably high-spec but does not need any specific equipment included. I can investigate this and come up with a recommended model; cost prob in the region of £600 - £900.
- Our existing Laptop will probably still be ok for use by the speaker - it just needs to run PowerPoint plus a Zoom session - but we may need to review this once we have tried the system out.

Next steps

- We agreed our next step is to provide to Andy a detailed list of the scenarios we envisage so he can check through them to see how each is achieved. An initial list of these is shown at the end of this report but Phil/Sue/Jurek (and any others?) have not yet had the chance to discuss these in detail.
- Andy also agreed to at least one Rehearsal session with us to try out these various scenarios in the hall with some people there in person and some viewing remotely over a Zoom session. Date(s) to be agreed with Andy after he has had the chance to review our scenarios. We will also need to liaise with Sarah to book the hall for the rehearsal session(s).
- We will need to purchase the new laptop PC before the rehearsal session(s).

Other things to be considered

- We will need to produce full instructions for using the equipment in the scenarios we have envisaged and we will need to 'recruit' additional Members who are able to run the equipment, and provide some training for them.
- Do we want a second camera to allow us to have a view of the audience (eg. during the Q & A session at the end of the talk). Sarah suggested that if we do, we would need to have permission from the audience for them to be filmed, or some kind of opt out clause in a booking system.
- We need to decide on a booking system for places in the Hall audience (assuming we are not able to have a full hall when we resume live talks). Sue has looked at Eventbrite and had found a few issues, mainly to do with restricting booking to Ealing U3A members, which she is following up on. With this booking system, we would like to be able to give priority on attendance to those members who have been unable to join in our Meetings over Zoom.
- Sarah said there had not been any discussion yet on a rise in room rates to cover use of the new video equipment; rather there had been the feeling to keep rates as they were to encourage clients to return and to be seen as a goodwill gesture. However, there may be a request for a deposit against accidental damage. A decision would depend on the Church trustees.

Additional points, raised by Ed Baker

- As this quite a complex operation, it would be helpful to list personnel requirements in terms of numbers, their roles (setting up, operations and putting away, training requirements, managing bookings, etc. etc).
- We should also consider the hall layout (chairs, orientation etc.- though this obviously can't be determined at the moment, it may not be as we've previously become used to).

Scenarios for Hybrid meetings in the Ealing Green Church

Below are three scenarios envisaged for Thursday morning talks when we can return to Ealing Green Church. In each case it is assumed that some of the audience will be in the church Hall, with other members viewing the session remotely via Zoom. In all cases, the new U3A Laptop will be on the Control Desk.

Scenario 1

- The speaker is in the church with a clip-on microphone that connects to the Hall loudspeakers (same as with our talks previously) and their image being captured by the Hall video camera. This audio/video mix is linked into the new U3A laptop to feed into the Zoom session.
- The (Powerpoint) presentation is run from a laptop on the front table (presenters own or the existing U3A one) and is displayed in the Hall via our existing projector onto the white screen.
- The presentation is streamed via a Zoom session (running on that front table laptop) to the remote audience.

Q1 – how do we ‘mix’ the view of the speaker with the (Powerpoint) presentation for streaming to the Zoom session? Can we do this, or would we just have to show either the presentation or the speaker?

Q2 – if the speaker has sound as part of their presentation, how do we ‘mix’ this into both the Hall speakers and the Zoom session?

Scenario 2

- The speaker is remote, linking in via Zoom for sound and vision. Their image will be shown in the Hall from the Zoom session running on the front table laptop via our projector.
- Their presentation will run on their remote computer. It will be shared (using Zoom screen share) both into the Hall through the front table laptop and projector onto the white screen, and also streamed over the Zoom session to the remote audience.

Q1 – as we have no speaker in the Hall with this scenario, what does the Hall video camera focus on when they are speaking (ie. before/after their presentation is being shared). Is the Hall camera slightly redundant with this scenario, although not during the Q&A session where it could focus on the member asking the question.

Q2 – as with Scenario 1, if the speaker has sound as part of their presentation, how do we ‘mix’ this into both the Hall speakers and the Zoom session?

Scenario 3 (the least likely)

- The speaker is remote, linking in via Zoom.
- Their (Powerpoint) presentation has been pre-loaded onto the front table laptop in the Hall, then is shown (using Zoom screen share) both into the Hall through the front table laptop and projector onto the white screen, and also streamed over the Zoom session to the remote audience.
- In this scenario, a U3A member would have to be on hand to do the ‘page turning’ of the presentation on the U3A laptop, upon the speaker’s command. This is similar to Scenario 2, other than this aspect.

Options for all the three scenarios above:

- Questions and Answers have to be asked as well as be seen and heard by the whole audience.
 - o Question asked by a member of the Hall audience: the wireless microphone is passed around and the Hall camera could focus on the person asking the question.
 - o Question asked by a member of the Remote audience – this could be via Zoom hand up facility or by them putting their actual hand up onscreen. Through the Zoom session we can show the person to the audience in the Hall via the front desk laptop and projector.
 - o Questions asked via Zoom chat text – someone in the Hall with access to the Zoom session can put these questions/comments on behalf of the person who has raised it. In this case the Hall camera could focus on the person in the hall putting the question on behalf of the remote audience member.
- The use of the TV Screens in the Hall probably becomes an option once we are happy with the basic hybrid meeting scenarios shown above. If we choose to use the TV screens, their use could be a little different between the scenarios:

- o Scenario 1: We might want to show the presentation as it is being shown on the white screen, but at times, perhaps for example during Q & As, switch between the speaker, the Hall audience and the Zoom audience.
- o Scenarios 2 and 3: We might want to show the Zoom screen with the presenter and the Zoom shared presentation. During Q & As, we might want to switch between Zoom and the Hall audience. Q1 – would we want to show anything different on the TV Screens to what is being seen on the white screen at the front of the Hall?

Considerations

We should implement a BAN on the Hall audience using their own devices in order to prevent audio feedback: the concern is that a combination of the white screen projection and the light in the hall has been difficult to make out in the past. Someone might be tempted to log into Zoom in the hall to get a better view.

We may need to look at any additional functionality within Zoom to see if there are any other features that might be appropriate for our use in these hybrid scenarios.

Phil Broomsgrove/Jurek Narozanski

June 2021

APPENDIX 8 – INITIAL THOUGHTS AND SUGGESTIONS

(courtesy Ravenshead u3a)

Start out with what most u3as are likely to have already from within their membership resources :-

- Laptop
- Zoom Software license
- DSLR Camera
- Camera Tripod or Gorilla pod tripod
- Projector
- Screen

What is likely to be needed to facilitate sound and vision within the room, and capturing audio input capable of being converted to the digital stream required for use in online broadcasting software via a laptop, is as follows :-

Audio - suggested absolute minimum specification purchases required (using www.gear4music.com for pricing purposes)

An entry level USB audio mixer such as a **Behringer XENYX Q802 USB**

Behringer XENYX Q802USB USB Mixer



See YouTube video at <https://youtu.be/no6W6GGe0No> for overview of setup

Simple single Wireless Microphone (hand held)

Suggest **SubZero SZW-20 Handheld Wireless Single Microphone System**

SubZero SZW-20 Handheld Wireless Microphone System



1m XLR cable to connect microphone receiver box to mixer

USB (A) to USB (B) Cable, 1m to connect digital output from mixer to laptop

A delivered price for all these items would be about £120.

2 x 1/4" Jack cables will be needed to connect the mixer's main left & right outputs to powered loudspeakers. This will depend upon if the venue has an existing loudspeaker setup in-situ as to the necessity for a u3a to provide them themselves.

If no sound system exists, then a minimum budget level purchase of something like a **SubZero 200W 8" Active PA System with linked Loudspeakers & Stands and 2 x 9m jack cables**, for a simple small to medium sized venue, would cost about £175 in addition.

Visuals

A simple visual of the event room could be transmitted on Zoom using a webcam, but to improve the broadcast quality, with the ability to zoom in on the speaker(s) from the AV desk, it would work best to use a suitable digital camera.

If any willing member within the u3a has got a recent Canon mirrorless, DSLR, or PowerShot camera, they can be used as a webcam. The Canon company has released a beta version of "EOS Webcam Utility" for both Windows 10 & Mac that lets you plug in any of the supported cameras using a USB cable and have it serve as your PC's webcam.

To find out how to set a Canon DSLR camera up see this article :

<https://www.canon.co.uk/cameras/eos-webcam-utility-how-to/>

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Find out more and download the software at : <https://www.canon-europe.com/cameras/eos-webcam-utility/>

This should should work fine for streaming video to most of the mainstream video conferencing options, whether you're using Zoom, Microsoft Teams, or another service.

A long hdmi cable is likely to be required to connect from a laptop to a hdmi enabled projector in the room. A decent quality 20 metre long hdmi cable would cost about £30.

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