Online Workshop PD - Brain Dump

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This is the starting point for the development of Delivering online engagements in the Glam Sector - Session Plan

Technical Requirements

Hardware

Camera

Some of the considerations when picking a camera is how it will be used in the particular workshop. Is there a need to demonstrate hands-on practical elements or is the workshop screen-based and screen-sharing is the only thing required? Facilitator needs to be seen.

Daniel's Ten Cents... The minimum resolution you'd want is 1080p and with that comes an understanding that not all web-cameras are created equal. Research is king here and understanding what you're getting is important before pressing buy. From personal research and experience outlined below are the three solutions I'd recommend/have used. These solutions cost, there's no denying that but in the long run you get what you pay for. Test what you have, look at what you're getting and make your own mind up. These are just the list of decisions I made with the information I had :).

1. **Logitech StreamCam** is going to cost you @ $250 and you can get them from Officeworks as a click n collect or delivered item. They have exceptional picture quality, plug and play with all the platforms and comes with both a top of the screen and tripod ount option. It deals with low light okay and the built in microphones are actually really good and (better than my fancy Zoom H5n as the Logitech Streamcam has intelligent noise filtering built into it. Downside, they're USBC only and I wouldn't trust an adapter for USB3 as far as I can throw it. Which is a crap analogy as I can throw one a long way but that is not the point!!!! If you have a new HP or Mac, you're in for a treat but do know what your situation is before you press buy. I've got mine in the home office paired with one of the bigger Jobi Pods and have put them on proper tripods for capturing hand work but we'll get to mounting cameras under the mounting section.
2. **Logitech Brio** is the business if money is no object, these are the superstar cameras at $380+. Short of the next option, this is the best quality imagery you're going to get into the computer. They're also USB3 and USB2 compatible (not as good a picture). Appreciate that both these options are Logitech but they really do have the market cornered at the minute with webcams. Everything that go4es for the StreamCam goes for the Brio.
3. **A proper video camera** is always going to crap all over a web-camera. The sensors are bigger, the lenses better and the odds are you might have one lying around the office as a great many LGAs do. The question is how to get them into a computer and there are solutions for that so long as they have a HDMI out port on them. This can be solved with a Magewell HDMI USB Capture card ($430+) or the recently back in stock Elgato CamLink Capture 4K ($190). Both of these will turn the humble video camera into a web camera with the bonus of being able to

record your end of the conversation to the camera. Useful if you're looking at repurposing facilitator footage for self paced learning options. The real difference is the size of the sensor. You're jumping from millimetres to centimetres and there is just more surface to capture information on. If you're going to go this far, you also will need atripod but we'll get to that. With regards the Magewell and Elgato there isn't a huge difference between the two products and the price difference - as far as I can tell - is one is made for high end production environment and the other is used by every would be Twitch or new YouTube star is using with their camera rigs. They've both got a warranty so I'd suggest making your own mind up. If you're around Brisbane and want to look at both, hit me up in an email.

To be honest, the video camera is my preferred option as it is the most versatile. If you have to buy a camera though it will cost you $1000 plus. You need to look for a camera that allows for a clean feed over the HDMI; a feed without any of the LCD overlay information. JVC and Sony camera do this pretty much across their entire range. Many DSLRs and some compact cameras also. It really is a case of looking at what you've got access to, how much you're willing to spend and how it works with your situation. Web-cameras are always going to be less stuffing around and have one less piece of kit in the signal pathway but will never give the really pretty picture.

While we're talking about cameras we should mention lighting. When I used to make movies with kids for a living the professional mentors would always say the difference between the kids films and theirs was lighting. They were right. Dingy lighting equates to a dingy picture, no matter how good the camera. All the camera is capturing is reflected light from the surfaces that its sensor picks up. You need to consider helping that along and that can come down to considering where you're shooting (see below) or adding some additional lighting (see below). Regardless the option, this is a consideration you need to take into account and the best way to measure your success review the feed on a second computer dialled into your meeting/session. See what the audience is going to see and not what you're seeing in your playback window. It's not representative of reality otherwise and that is what matters.

Microphone and Sound Considerations

Although many devices come with built-in microphones they will generally pick up everything in the room (and perhaps some traffic and dogs too).

Daniel's Ten Cents... People will forgive some crap video - they've been trained to accept it with Facebook and YouTube - but crap audio will turn them off pretty quickly and there is absolutely no reason for crap audio, other than being lazy or not being able to spend the money to fix it. The first thing is not an excuse and with the latter instance I'd argue you've got to spend some money on increasing the production value and if you have to choose one option from the myriad, this is where you start.

So mentioned in the video camera section, the two web-cams recommended have really good audio built into them with noise reduction. Odd are the video camera has probably got decent audio. Testing to see how it goes with your setup - as mentioned above, checking from the client perspective rather than your monitor - to see how it sounds and make a call. If you're in a quiet room with not a lot of reflective surfaces you're probably going to be okay.

DO NOT USE THE CHEAP AND NASTY MICROPHONE THAT CAME WITH YOUR MOBILE PHONE!!!!! If

you've spent a crap load on something like the Airpods, Google equivalent, Bose or Sennheisers you might be in luck or maybe not. I've got good ones and they're just not good enough from where I am sitting and listening. The microphone on my Macbook is okay but not great; it's designed for meetings, not performance or production. I am yet to find a PC that has a great built in microphone but that might be I am a snob. So all the negatives said, what are the options?

1. External sound card like a Zoom H1 or better. They range from $120 to $600 and will get you excellent sound. So will a Tascam and other brands; I use the term Zoom the same way BandAId is a brandname and the standing nomenclature. For most people this is an overkill solution but it is something that a lot of organisations might already own. The built preamps, gain control etc will improve sound quality and the give some fine tuning to the input. They also provide balanced and powered inputs for other microphones, which has the larger benefit of maybe providing opportunity for future podcasting aspirations. This is one of those nerd toys I replace on a five year cycle and never regret having access too/never stop finding reasons to use it. I have mine at home mounted over my desk on a Manfrotto Magic Arm. I have a number of things mounted on Magic Arms and I might have a problem. More on Manfrotto Magic Arms later.
2. An external micro will do wonders eliminating the general background crud if you choose the right option. We've moved to using lavelier microphones (mostly known as lapel microphones) as they get the sound closest to the microphone, they're discrete and it's what they're designed for. There are a couple of options though to consider when going down this route, which mostly are will you be moving around a lot and thus yanking the cable out of the computer over and over again? If you are, let us recommend upfront that you should consider getting a wireless solution. We've presently deployed the Rode Wireless GO. One end plugs into the laptop and the other end clips to the presenter, which is a small black or white square. It will also take a more traditional microphone as well. This device is professional grade but designed to be user friendly. So long as it is charged and plugged into the right places it will work a treat. As a side note, you'll see Rode mentioned as a brand a couple of times in my notes. That's because they're a good quality brand, Australian made, available from most every local supplier and they have a rock solid warranty program that is based in Australia. You do you and do your own research; this is the way we went.
3. **NB.** One thing to bear in mind when you're buying this equipment it really does matter where it comes from. You will find with cameras and audio equipment - not all but a lot of it - that the warranty is local to the country you buy is from. If it imports from USA or UK or China there's a solid probability that the warranty won't be honoured. Which is not great when spending several hundreds of dollars from budget lines that don't have a lot of replacement fat in them. A phrase you want to avoid at all costs when buying this kind of kit is grey imports; when items are purchased from a cheaper market, imported and sold locally. This tends to be more prevalent with smaller online retailers and Ebay purchases. Have had it happen with Amazon but that's been rare. It might look a lot cheaper in the upfront but you will not get it covered under warranty, even if the item is DOA and having spent the better part of 20 years in this space I have lost track of how many DOA devices and items I have had delivered from reputable brands. It's the reality of high volume consumer electronics; problems slip through the crack. Always check and be sure. If in doubt, deal with brick and mortar retailers in Australia (or the country you're reading this in) either in person or online. because at least then you'll have a phone number to call or shopfront to walk into and declare 'I... would like to make... a complaint' Monty Python's Dead Parrot sketch style.
4. You don't have to go a lavelier microphone. You could go a boom microphone, Podcaster or similar. If you've got a good quality camera and the room is quiet then you can go with that.

When making the decision you really have to consider the background noise you're competing with. The best option if you can if record/stream in a quiet room that doesn't have an echo. The next option if the room is noisy if fine a space that is quiet and doesn't have an echo (Andrei would have a better way to articulate this but he's an audio professional and I am a workshop delivering hack). There is no third option. You need to control the space you're recording in and take responsibility for it. Crap in and crap out is the sad reality. If the punters can't hear you or it is difficult to make out what you're saying then that is that; they will tune out.

5. You're going to need headphones or earbuds. It's that simple and it's not really an option. Alternatively you need fold-back speakers to hear what they're saying and then you need to make sure you're not getting any feedback on the microphone/speakers. Which means you need to test these things and you need to test them well in advance of people coming into the Zoom room for the session. If you're going to go with headphones then go with wireless ones for the same reason that we went with a wireless microphone setup; less cable means less tangling and less ripping stuff off of the table when you forget that you're plugged in. You do not want to break your expensive streaming setup because you're a klutz. Take it from someone that has been there, broken that and had to outlay replacement dollars because no insurance I've found insures against my own idiocy. When we say speakers, they don't have to be expensive but it never hurts that they don't sound like rubbish. When I say headphones, if you're doing this for a living then investing in a decent set of earbuds or headphones is a necessity. Mine are all bluetooth, they make lovely sound in my ear, I can wear them for hours on end without irritation and they have at least six hours battery life which is fully charged anytime I am delivering a public program to ensure I'm not going to run out half way through. As always though; you do you. This is what works for me and for us but you might be an entirely different kettle of fish.

Streaming Device

- Desktop
- Laptop
- Smart device

Internet Connection

Bandwidth requirements:

Standard HD (720p)

- Group video calls: 1.5 Mbps (up/down)

Full HD (1080p) Group video calls:

- Receiving 1080p HD video requires a minimum of 2.5 Mbps
- Sending 1080p video requires a minimum of 3.0 Mbps

Monitors

It is a big bonus to have access to a second monitor if screen-sharing is part of the workshop. This allows the facilitator to have an overview of participants and reading body language and mood and whether participants are raising their hands to ask a question. In some instances participants will show you their work (if physical) using their cameras. Seeing the participants during the workshop will

help connect with them and makes the experience feel less one sided.

Other

- Lighting

Room Acoustics, Background Noise and Mic Placement

No matter how good your recording gear is, the acoustic environment is still the main factor in audio recording quality.

Understanding your spaces acoustics

The easiest way to think about acoustics is in terms of acoustic 'comfort'. Ask yourself the question - how easy it is to hold a conversation with a few people in this space? Do I need to raise my voice to be heard with a few poeple in the room? Am I missing details in conversations? Does the space feel echo-y or 'cold'? Is there sound leaking in from outside, or being made by equipment in the room? If you answer yes to any of these questions, then the easy fix is change your acoustic environment - by finding another space to use.

What to look (and listen for) in a space

In technical terms, a good acoustic space for recording speech has a flat frequency response, a RT60 of less than one second, with a diffuse near field response. In non-technical terms, we are looking (listening) for a room that is:

- warm sounding,
- small enough to feel personal
- not boomy or echoing (not a shower or bathroom)

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Other things in your space

Have you got enough light?

If you are struggling to see you'll give yourself a headache- thats one thing. but your participants might be having trouble too and the webcam could be struggling (to focus) as well in the dim light.

Ergonomics?

If you are doing a practical workshop make sure you are going to be comfortable. I like to be on wheels so i can reach my gear. It suck having to reach over everything to get to a keyboard for chat when you are in the middle of your workshop.

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Software

- OBS for advanced mixing of feeds into Zoom.
- CamTwist Free simplified version of OBS for Mac
- OBS Mac Virtualcam will output OBS as a virtual camera for Zoom/Teams.
- Krisp AI Noise Cancellation Uses AI to remove background noise in realtime. James has been using this for sometime and it works pretty well when not in a clean environment
- Webcam Settings Control (Mac) gives you more advanced webcam options, allowing you to change the frequency of the video between 60Hz to 50Hz. This removes the flicker when under some LED/Fluorescent lights
- Loopback (Mac) Simple virtual audio mixer for multiple inputs (microphones/application audio)
- OBS Camera (various app stores) - Allows you to use phones/tablet cameras as webcams in OBS over a network. You do require a fast network (no wifi). Best to use ethernet dongles for iOS devices

Cloud Platforms

Design and Development

Development considerations

There are many differences when delivering a workshop remotely and many considerations during the development. Delivering in person, with the technology and resources in a library is easily taken for granted.

- What software/apps do you need for the workshop? Participants cannot be expected to purchase or subscribe to expensive software
- What are the hardware requirements for the workshop? The average person will not have the latest and fastest hardware
- Can the workshop (software) be run on all major operating systems? macOS and Windows, Linux? Are there any restrictions for what version the participants can be running?
- Using online tools removes the need for downloading and installation. This saves time during the delivery or removes the need for participants to download/install things by themselves prior to the workshop
- Hazardous materials and tools creates challenges with OHS, risk assessments need to be written for overarching online program as well as for individual workshops. Minimize the risk and provide as many tools as possible.
- If you are sending out kits to the participants make sure to:
    - 0) Make sure you have all you parts in stock ready to go

- A) Collect postal address and make it mandatory
- B) Consider delivery durations to make sure they are delivered in time
- C) Make pickup an option for the participants (if possible)

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I always try and run a trial of the workshop with a couple of colleagues, well and truly before your workshop date. If you do it early enough, you have time to fix the problems and be prepare to walk into the workshop confidently. It doesn't mater how prepare you think you are you'll always find something you can improve. ***No battle plan ever survives contact with the enemy.*** *- Field Marshal Helmuth von Moltke*

I also like to document any learnings I have in these in these trials as its great to be able to go back after and see where you've come from. Reflections On Soundscape Box Feedback Session

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Designing Online Workshops

In person workshops are a familiar and effective mode of engagement, with a set of implicit norms that may only become obvious with your first online delivery. The social aspects of this way of working are sometimes the main motivator for participant engagement – meeting new people, sharing time with like-minded individuals and the serendipity of social interaction are all valuable outcomes which are hard to replicate in a virtual environment. At the same time, technology uptake has changed the way people expect to interact, and it may be that your participants are more digitally native (and comfortable with the constraints) than the facilitator. Even so, working in the virtual seems to make the experience much more front facing m- the talking head on the screen is the sole input, and glancing about the space, chatting to the person next to you or playing with your phone becomes impossible. The facilitator is always on, and in a very focussed way for each individual – you and each of them feel like the only people in the room, and so each expects a more focussed and personal experience.

As a facilitator, ‘reading the room’ becomes fraught – non-verbal inputs are heavily filtered, if present at all. The ability to spot a problem and move to one-on-one assistance is almost lost, when the rest of the participants cannot help each other to continue an activity (though having a production assistant can help address this – see below). The facilitator’s view of each person’s progress is severely limited by the participant’s camera field, and this rarely includes whatever they are working on. Facial cues become more important, and participants need to be encouraged to be more explicit about requesting help. And that never works for shy people.

For the facilitator, checking on progress becomes more essential, and balancing these one-to-one interactions with group needs becomes a tension. At the same time, calling on individuals can help them feel more part of the experience, and a specific intention to do this will disrupt the ‘invisible wallflower’ mode that some members of every group employ as a default. This can be good (engaging), or bad (embarrassing), but likely you will not know until after the event. Some of the best online engagement outcomes have resulted from having more than one person on the other side of the screen, both for facilitators (see below about production assistants) and participants (seen with

parent and child co-working, for example). Like most dichotomies, it might be that the best choice of two apparently opposite approaches – everyone present in a room together, opposed to everyone in their own room - is to combine both and have participants physically with one other, as well as virtually with the group.

Daniel's 10 cents worth… Remember that all of this is for the benefit of the audience/participants. Every decision you make around how and why you do something should loop back to them. Ask yourself repeatedly; if I were listening to this would i continue listening to this and if the answer is no then change it up. Record your session and watch it back. Be critical on how you present and what you could do better. Run it through with a colleague you trust and respect then ask them what could have been done better. You don't need to agree with them or do as they suggest but at least you've heard an objective opinions because as sure as water's wet and the sky is blue your subjective belief of what you sound like is not going to cut it. You will hate the sound of your own voice, assume you're speaking at a pace that is suitable for streaming and that your hands are not fidgeting but they likely will be. You do it so often that you will have stopped noticing and that is a recipe for not being the best outcome for the customer, because they are customers. They're not always right and they're trusting you know what you're doing even if you don't and the secret is this; fake it until you make it and the odds are no one will know the difference.

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If you identify an issue being able to deliver something in the online mode, think about what you'd do in a face to face situation. EG if you can't understand what the problem a participant is having ask them to share their screen or hold their project up to the camera. You'd be amazed the solutions (for transitioning to the online mode) when you take this simple step back. just ask yourself *how would i normally deal with this?*

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Preparation: Materials

Materials will either need to be readily available and assembled by participants in response to a pre-event email. Pausing mid-event to supply additional parts, or to use unique technologies to recover mistakes is not possible, so redundancy needs to built-in to the experience for critical parts that have been identified as fragile or capable of misapplication.

Using common materials

POSITIVES

- Increases the possibility of future exploration by participants, who experience how everyday materials can be used for prototyping their ideas
- Lowers the fear factor, which can be a barrier to exploration if materials are seen to be expensive, ‘special’, rare or difficult to obtain
- Makes mistakes and failures less traumatic

NEGATIVES

- Reduces cost to the facilitator (and possibly the participant), but limits the range of possible

activities
- Runs the risk of participants not having materials on hand, either due to misunderstanding, cost or unavailability
- Reduces the wow-factor that might attract participants in the first place
- Leads to a diversity of inputs that makes delivery more complex

Using supplied materials

POSITIVES

- Increases the perceived value of the experience by making it special. The excitement of getting a package in the mail is a good motivator, and may enhance the perceived value of the engagement.
- Allows unusual, specialised or bespoke items to be part of the workshop
- Provides for more unique participant experiences
- Allows participants to access required files or weblinks before the workshop
- Increases participant engagement, both as a reminder, and as a demonstrated commitment by the facilitator to the event.

NEGATIVES

- Increases delivery costs through postage
- Requires more pre-delivery input (purchasing, packing and postage)
- Runs the risk of delivery services causing critical delay

Preparation: Documentation

Detailed documentation is a way to preserve the work done developing the activity and making it available for iteration and replication. Documentation usually requires that the activity be run through several times by the facilitator, and this process allows for reflection on the best sequence of steps, as well as revealing where the more difficult parts are. The facilitator can try different techniques, investigate alternative solutions and get a better idea of the time required (a good rule of thumb is to add 20% more time for an inexperienced participant).

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Having complete documentation before the workshop means that you can try letting the participants read/ look at diagrams (under their own steam) when telling them/ Showing them over the stream, Especially when the online mode is not working. Detailed diagrams of the box construction stage of the Soundscape Box workshop reduced the duration of this stage from 1 hour (with 2 participants) to 5 or 10 mins (with 7 participants).

Having this info online means studious or particularly engaged participants can go back and dwell on the workshop after.

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POSITIVES

- Allows for a secondary communication channel to be available concurrently with the workshop. Having the documentation available to put on screen during the workshop can give access to better images and diagrams than what is usually possible in a live-streamed event.
- Allows participants to work asynchronously (greatly assisted by having an assistant)
- Increases participant confidence that they can complete the activity, even if the workshop is timed out before ending
- Allows facilitators to generate detailed lists of materials and tools
- Highlights OHS concerns before delivery
- <MB allows facilitator to have some quality control - confidence that the materials will perform the way you need them to - Not all Rubber bands are made the same.
- needing to provide basic tools and materials can be a pain but also drives innovation need to send tools drove the development of the Thumb Socket (cute) and sending non-toxic, inexpensive glue meant i discovered using instant grab liquid nails(decanted into cute plastic bottles) as a new way of providing quick contact adhesive. MB>

NEGATIVES

- Documentation takes time, and this will need to be scheduled into the facilitator's workload
- Some insights only become apparent in the moments of delivery, and these will not be captured if documentation is completed beforehand. Revision should be allowed for (and further increases the time required)<MB time should be taken to reflect and add *Live Findings* to your documentation.

Preparation: Tools

Tools will be restricted to those commonly available (scissors, writing instruments, etc) unless specific tools are included in a mailed-out package (which increases costs). Instruction in the use of unfamiliar tools also takes up more workshop time, unless prior learning packages are set up, and used. All tools used also bear greater OHS consideration, given the lack of direct supervision (and the possibility of first aid response). If unique tools (like a laser cutter) cannot be avoided, then the activity will need to be supported by a mail-out, with all the negatives listed above. This is not an absolute disqualifier, but it means the extra time and cost will need to be considered in the approval process.

Delivery

Delivery: Production Assistant

A production assistant is almost essential if multiple inputs are used – monitoring participant experience in real time will save time and frustration. The assistant needs to be skilled in manipulating software and hardware used, especially if a real-time production suite like OBS Studio is used. The production assistant can also act as a subsidiary tutor, working in a break-out room to engage those who fall behind, or have difficulty interpreting instructions. Assistance with connectivity issues is also better dealt with beside an ongoing engagement, and immediate support will help participants feel less frustrated or abandoned. An additional person in the virtual room also helps

negate concerns about child safety or inappropriate conduct by any party. <MB its great to get the assistant to monitor/ drive the chat conversation. Especially when someone has turned up to your workshop without a microphone ...it happens all the time no matter how much to tell people minimum requirement to participate is a webcam and mic. Also unless you have a switched on assistant you can count on turn off the waiting... nothing worse than a participant waiting to get in. It can't be understated how great it is just to have an assistant there as you wingman to help you stay cool and not freak out if its all going to hell and you feel like jumping up and running away... or maybe thats just me. MB>

Delivery: Participant Engagement

Experience has shown that many participants will not activate video or audio channels, making monitoring difficult during delivery. This may be due to them using protocols familiar from different online engagements, a wish for privacy or technology constraints (attendance by phone, for example). Facilitator direction may address this to some extent, but it should be expected and planned for. Monitoring participant work is difficult if their camera does not allow line of sight. Specific requests to show their work may be required.

Taking time at the outset (or including instructions in a pre-workshop mailout) about implementing the available Zoom backgrounds might help get more faces in the room <MB i hate the backgrounds as it can make seeing what they are doing harder MB>. Noisy household backgrounds are a common problem (as well as interrupting pets, children and spouses), but people familiar with Zoom tend to be tolerant of this. Addressing this explicitly in the opening conversation might encourage more video presence if intermittent muting is suggested as a solution.

Delivery: Technology and Software

PASSWORDS Remember that delivery from off-site using facilitator laptops may require that staff authentication has occurred on the machine while still on the SLQ network. An alternative solution is that the laptop has a generic user (‘Facilitator”) that can be used by anyone in possession of the appropriate password.

CAMERAS Camera orientation can be critical – an overhead point-of-view style is preferred, but this requires mounting a webcam directly above the workspace. Tripod mounted webcams are sufficient to focus on the facilitator (who can hold things in view for discussion), but give a working view badly affected by distortions of perspective. Having a monitor for the facilitator and using multiple screens so as to keep track of the participant view easily is important. It also helps of the facilitator (or assistant) is practised in using keyboard shortcuts to switch screen views on the fly.

<MB If you are using a top down camera, try marking out the extent of your *feild-of-view /stage*using some tape. MB>

WEBLINKS Providing weblinks during the workshop (in side-bar chat channels) is problematic since they will be lost at the end of the session. Zoom allows for chat to be saved locally, but participants might need to be made aware of this. It is a better idea to include links in pre-engagement mail-outs, which are also then available for future reference