



ARTSCAST PILOT PROJECT

Compendium Version 1.0



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SECTION 1 - Introduction to ARTSCAST

Overview

The English Language Arts Network (ELAN) has been investing in providing solutions that help Quebec artists increase the value of their work on digital platforms. The ARTS2U project began in 2018 as a way for artists to achieve increased findability and discovery in the digital realm. As a result of the COVID-19 pandemic, ARTS2U project began including live broadcast events to arts event listings as of July 2020. The ARTSCAST Pilot Project addresses in depth details regarding inclusion and added value to live broadcasts to ARTS2U. In August and September of 2020, the ARTSCAST Pilot Project worked to add value to artist created digital media productions and packages. A series of nine events was assembled to test and document the potential to derive higher value and additional revenue streams. The events took place in multiple venues, featured multiple artists and disciplines and used a range of streaming technologies.

ARTSCAST Mandate

To address the paradigm shift the arts sector will benefit from specific study and reporting of activities. A project to frame artist activities lessons learned by artists in live broadcast productions (best practices and guides) and in the context of how audiences react to their release of their new offerings will be of great benefit to future development.

The Problem (With Live Artist Broadcasts)

Generally, independent live broadcast productions are inconsistent in terms of quality. Thus, it is difficult to get audiences to continue paying for streams. There is also a problem of over saturation of the markets if access to streams is not controlled. Production quality on the side of the artist, or on the side the platform can lower the value of future demand for the artist unless production quality is exceptionally professional.

Requirements of Solution

1. Selection and recommendation of platforms - After preliminary review of multiple systems

ARTS2U will test at least two broadcast platforms that offer acceptable broadcast options

2. Technical guidance from professional audio and streaming technicians
3. High quality written documentation of the broadcast process to be communicated through membership webinars and direct consultation to artists.

SECTION 2. So you want to livestream your work...

What you need to think about as an ARTIST or Marketing team preparing to offer a Livestream or broadcast:

1. Choose or create the event you want to broadcast.

Arts and arts organizations now have the power to stream live performances and engage audiences, and to monetize the live content they produce. It has to be well understood that to do this there must be demand for such performances. The popularity or demand for a live stream can greatly impact how you should try to monetize the work. If the stream producer is not sure that there is demand, tests of free content to develop audiences may be required before putting a price on a stream.

2. Select a broadcast and sales platform

Every artist can broadcast streams for free on many social media platforms. But it gets more complicated if the streams are being sold and if they have to be secure to prevent sharing of events that are intended to be paid for.

The difference between steam hosts and sales platforms

Broadcast streaming platforms are video hosting solutions that allow users to upload and broadcast video content to their audience. Facebook, Twitch, Instagram, Youtube, Zoom, Vimeo are popular platforms to host an artist broadcast. There are many more platforms and each has its own merits and limitations. Most broadcast platforms are limited in the way they can pay artists directly for streams. Most often, added text and links in the broadcast are used to channel payments to the artist or owner of the broadcast, and often most viewers will see the broadcast without having to make a contribution to the artist.

Ticketing platforms have emerged to offer artist Live streaming capabilities to artists where each stream view can be sold at a firm ticket price. Quebec based, Thepointofsale.com has emerged as a leader in the regional market. Eventbrite is well established internationally and is being used for many ticketed streams across Canada and world wide. Many more ticketing platforms offer the service including Sessionslive, Veeps, Noon Chorus, LiveXLive (Ticketmaster). Other artist community sites are very helpful to facilitate adding value to livestreaming for artists. In Canada, Halifax based Sidedooraccess.com is an excellent resource for artists and can offer a range of possibilities to release your stream.

3. Scheduling - Choose the location and time

Streaming an event can take place any day of the week though it should be scheduled according to the intended audience. Given that much of the world is currently experiencing COVID-19 confinement there are a lot of available time slots to stream your event. If your event is for working people events are best scheduled in the evening or on a weekend. For evening shows many livestreams are successful scheduled early in the week, as the old rules of doing real world events more toward a weekend are less the rule of thumb. Also if you have an international audience you could schedule multiple shows in different timezones to accommodate fans in Europe, Aisa or even on the east and west coasts of North America. You can also schedule based on specific markets. With geo-fencing available in some systems streams can be made available only to a certain market (Montreal, or Calgary for example).

Live vs VOD

VOD or Video on demand is an option for recording a show and letting it be streamable over a longer period of time. Not all the potential audience will be available for a specific time when a live show is being recorded. Extending the period in which the performance is available can result in increased sales.

4. Marketing considerations

Be ready with additional media for the description of the work. Graphic images including photos and video are most effective to reach audiences.

Required Media From Artists

In order to market an ARTSCAST Live Broadcast Series show, we ask the artists for promotional media. Prior to each show, we require:

Primary promotional photo. We will use this hi-res photo to create our branded visuals (including our logo, ELAN logo, promoter logo). It is recommended to have a couple photo options so we can choose the one that fits best with our branded visuals template.

To be posted upon show announcement and reposted as the date approaches.

Secondary promo material. I.e. music video clip, behind the scenes photo, show trailer.

To be posted a week after the initial show announcement as a teaser.

A DIY show announcement of the artist announcing the date, venue etc. of their upcoming show, which they post on their page and tag @artscast.ca, following which they send the video file to us to be posted on our page as well.

To be posted a week before the show.

Links to their social media pages. Including Website, Bandcamp/Soundcloud/Youtube, Facebook page, Instagram handle.

A bio of the group and/or show. We ask for a short bio (1-2 sentences) to be used on our Instagram caption, as well as a long bio (paragraph) to be included on our Facebook page.

We make it clear to the artists that promotion of the show is partially their responsibility. ARTSCAST creates events, posts on our pages, pays for advertising -- however it is up to the artist to also post and share the events with their following.

Marketing To A Category

Use of keywords to find audiences on social media for specific disciplines in Facebook , Instagram and Google.

In order to find audiences on social media, attention to keywords is essential for search engine optimization. On Instagram hashtags are crucial to increase findability posts. It is best practice to include the top ranking hashtags per category (see list below) plus other region specific hashtags that have over 10k but less than 1m tags (i.e. #MontrealArts #MontrealMusic).

For Example, INSTAGRAM KEYWORDS / TOP HASHTAGS

#artoftheday 42m, #artist 208m, #arte 72.8m, #art 704m, #artistsoninstagram 58m, #artists 15.3m, #arts 22.5m, #music 333m, #live 96m, #livestream 2.8m, #broadcast 886k, #livebroadcast 119k

In order to gain a following on Instagram it is important to follow accounts that our target audience would also follow the promoter (i.e. Greenland), the venue (i.e. Turbo Haus), ELAN, etc. Next, it is best practice to follow the accounts that are actively engaging with said pages. Once these accounts follow our page, we can increase engagement by commenting on their photos with positive and encouraging comments and emojis. In addition, if anyone comments on one of our posts it is best practice to respond as soon as possible to the comment, which increases engagement. This improves our findability.

For Facebook and Instagram paid advertising we are able to target a very specific demographic. Depending on the nature of the show, this demographic will be modified. In general we target the area of Montreal, ages 18 - 40. We target arts likers by including some local (i.e. Osheaga Festival, Place des Festivals, or Danse Danse and some broader similar interests (i.e. Alicia Keys) depending on the discipline genre of the work. Targeted ads are the most effective mode of advertising in these current times, since not many people are actively google 'shows in Montreal'.

For paid advertising on our google ads account we use keywords including Live Broadcast, Online Events, Evenement Virtuel, Music Broadcast. Each time someone searches these top keywords and clicks on our ad we get an invoice. It is to be noted that due to the current times

not many people are searching for live music Montreal, which is normally a highly searched phrase.

In addition to our own advertising and keyword placement, it is essential that the artists we work with use their following to promote ARTSCAST. When we create posts and events, the artist should share the event and tag @artscast.ca in order to direct traffic towards our page for us to gain followers.

5. Sales

Ticketing sales platforms can offer direct payment to artists for the streamed performances. Many artists and producers are happy to receive payment direct to a paypal or by internet transfer to bank account by embedding a link in a facebook or internet broadcast but the open nature of those broadcasts takes away the Scarcity created by a closed broadcast, and most of the audience can watch a stream without making a contribution. The choice to use a ticket platform versus a Tip Jar method depending mostly on the demand for the stream. Will the audience readily pay the price for an exclusive stream of your content? Another opportunity for monetization of streams is to record the livestream and then to re-version the stream in a second window. The second window could make the stream available (likely at a lesser price) at a date/s or period of dates well after a livestream was recorded.

6. Music Licensing

For simplicity, ARTSCAST suggests that ingartists and producers use originally created content in their livestreams to avoid conflicts or licensing oversights.

Sync License

A sync license is the right to take a piece of music and add it to video content. A sync license is required to use a song a commercial, movie, tv show, and a livestream or online video. Anytime you, the content creator, are “syncing” music to video you need a license.

Mechanical License

To use a cover song that is a completely new captured version of something that was written or composed by another artist the livestreamer still has to pay royalties to the original song’s creator. This is what is known as mechanical license. Typically, a mechanical license requires you to pay the song creator of the track.

In Canada you can find out more about music licensing from CMMRA
<https://www.cmrra.ca/faq/online-licensing-faq/>

There are also commercial services such as Soundrop which can help to legally acquire cover licenses.

<https://soundrop.com/cover-song-licensing/>

SECTION 3 - The ARTSCAST Pilot Project

Schedule

Aug 14	EVE PARKER FINLEY - Sala Rosa
Aug 27	SARA DIAMOND - Basebin
Aug 28	MACK MACKENZIE + CHRIS VELAN - The Wheel Club
Sept 10	HANORAH - Turbo Haus
Sept 14	TINKERTOY FOG MACHINE - Sala Rosa
Sept 15	JOHN JACOB MAGISTERY - Petit Campus
Sept 17	BREAK CITY DANCE - Petit Campus
Sept 24	LAND OF TALK - Rialto Theatre
Sept 26	THE GREAT SABATINI - Turbo Haus

SECTION 4 - VENUES USED FOR THE PILOT PROJECT

Basebin Studios

All audio runs through the X32R and then into a vintage 1986 Midas console. A full multi-track session can be recorded for deeper remixing should be available in the case of rebroadcast.

Having a separate control room from the Live room is advantageous. Being able to be in a separate isolated control room enables the venue to offer clients the studio quality mixed sound. Cameras are connected to the SLING STUDIOS HUB. The SLING STUDIOS hub allows us to connect cameras wirelessly via the Sling Cam-Link transmitters. You can be 300 feet away from the actual streaming hub. Not only does the Sling Studios allow for streaming, but it also allows for record and re-edit of the Live streamed show.

La Sala Rossa

After preliminary streaming during the 2020 edition of Suoni per il Popolo - which was done using Zoom Q2N - 4K cameras and an office computer - La Sala Rossa decided to invest in developing a more powerful and professional streaming set-up. Firstly, audio mixing was divided into two parts - monitor mix for the musicians and camera techs in the room + a streaming mix that was done in a separate room with true isolation; to better hear what the audience will hear. This mixed sound is then sent to the computer via a SSL2 Audio Interface. We also purchased a powerful custom built computer explicitly for streaming that included a built-in capture and a GPU. Thirdly we upgraded our cameras and tripods. The cameras connect via SDI directly into the built-in capture card of the computer. Camera-switching is done via OBS.

Cafe Campus

As a long established set up for performances Cafe Campus and Petit Campus venues work with well tested audio and lighting equipment including the Yamaha QL5 audio console. For streaming the room has added 4 cameras: (3 stationary, 1 handheld) and a team of experienced operators. Since renovations were taking place in the Cafe Campus main venue Petit Campus was used for on going live streaming.

Turbo Haus

Turbo Haus began broadcasting shows before the pandemic began for several reasons. They wanted to provide patrons with a service even if they could not make it out to show. They also wanted to provide a service and accommodate audiences when a show is sold out which often is the case in small venues. They installed stationary cameras to record most performances as a capturing the excitement of the crowds. A separate sound and video mixing was set up in the basement for better isolation. Utilizing Reaper, Waves Audio Plugins Dante Virtual Soundcard, Open Broadcast Studio they are able to capture distortion-free full 1080p video from the two mounted cameras, and combine them with 32 possible high-quality audio channels made available from our console over a redundant Dante network. There is the capability to mix recorded and stream to a multitude of platforms by our dedicated streaming PC using Reaper.

The Wheel Club

Montreal longest running country venue has aggressively embrace live streaming of it's shows. Audio is processed via the Behringer x32 console outputs directly to Roland 4 channel video switcher, Lighting is limited and improvised based on the performance. The venue has a unique (Country) character and artifacts that create a special ambiance. Cameras are 2 cannon XA 15's and 2 hand-held, 1 stationary

The Rialto Theatre

Pop Montreal was faced with delivering a festival with the restrictions of a pandemic. Live shows were streams courtesy of one stop shooting and streaming service provided by <https://livetoune.com> . The Rialto Theatre temporarily allows some patrons into the live show and the free on Youtube availability of the streams made it easy for large audiences to view online.

ARTSCAST PILOT PROJECT VENUE SETUP GRID	Mixing Board (Audio)	Audio Interface	Camera 1	Camera 2	Capture Card Hardware Switcher	Streaming Encoder Software Switcher
Turbohaus	Behringer x32 (S32 Digital Snake)	Behringer Dante to Dante Virtual Soundcard (Cat6)	2x PTZOptics VL-ZCAM		RTSP network	OBS
Wheel Club	Behringer x32	Steinberg CL1 connects via USB	2x Canon XA11	2x Canon TR3 Rebel DSLR	ATEM Mini Pro ISO	OBS
La Sala Rossa	Midas M32	SSL 2	3 x Black Magic Pocket Cinema 4k	1 x Sony PX-X70	BlackMagic Decklink Quad SDI	OBS
Petit Campus	Yamaha Q05 mixer	Dante Virtual Soundcard (Cat6)	3 x Canon M50	Canon XA10	Roland V1 HD videomixer	OBS
Basebin	Behringer to Midas	Behringer XR32	3 x Sony A6400	IPhone	ATEM Mini Pro	OBS

Rialto	* All technical matters undertaken by Livetoune	https://livetoune.com/nos-services/				
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SECTION 5 - MARKETING

Marketing

ARTSCAST has set out to solve problems specific to the Canadian arts sector. Through previous research ELAN research has surveyed producers across Canada. The pre-COVID solution proposed to Canadian producers is that we automate the collections of events data, thereby saving producers time and providing an extensive metadata resource to market to audiences. The metadata generated by the system offer a potential to further employ AI and machine learning tools to the benefit of the arts sector. The solution arrived at is still valid in COVID-19 affected world. But there are not enough real-world events taking place to drive the model. The ARTSCAST use of live broadcast events as content to drive adoption to the model has accelerated development toward digital broadcast, online development, and recorded projects.

We are in a unique acute time. The situation of COVID-19 has left many things untended and uncertain, including the arts. People now need the arts more than ever. As nutrition and exercise are to the body, art is to the soul.

SOCIAL MEDIA Outreach to promote ARTSCAST

INSTAGRAM - Promotion of events, behind the scenes, paid ads.

FACEBOOK - Creating ARTSCAST events, paid ads, use FB Marketplace for selling tickets

VIMEO - Used to store livestream captures

TIK TOK - Put in short videos, artist generated or compilation of promo events

Social media links

[ARTSCAST Facebook](#)

[ARTSCAST Instagram](#)

[ARTSCAST Vimeo](#)

Pre-Show

It's important to think about how you are going to promote your show to ensure that you have the best audience possible, especially when the event is online. Paying to boost Facebook and Instagram ads are an efficient way to get the word out. Your ads should include the date and time of the livestream, a URL to the purchase tickets or if possible the event stream. Including a URL to the event on ARTSCAST.ca will drive more traffic to the ARTSCAST platform.

Some platforms (Facebook, Instagram Twitch) will notify your online followers when you go live. If you are streaming on a different platform it's a good idea to prepare a short segment to 'Go Live' on those platforms 5 to 10 minutes before your show actually begins. This way followers on those platforms will receive a notification and you can direct them to the stream location.

During the show

Chat moderation offers the opportunity to communicate intimately with the viewer of a broadcast. It is present in most ticketing platforms and it's important to be prepared. You can also send links to artist products and information. You can also inform engaged fanbases of future events or releases. This feature can add a lot of value to the broadcast for artists.

Chat Moderator - Script Guide

Be ready in advance of the show to give your team the proper access and logins so they can successfully moderate the chat. Create a live document chat script that can easily be modified, and copy and pasted into the live chat. The script structure should start by welcoming the audience members. Help your audience get settled in and comfortable, and make sure that they understand how to chat. Have the artist and the moderator pass along prompts and news surrounding the show, and also respond to any audience requests for information. Give a bump to presenters and secondary performers, or on the productions itself. Give the public links to follow up with the artists. Mention future events that the artist or related artists are scheduling. And also be ready to say goodbye and thank the audience for buying tickets or just being there.

It's not just for the audience!

There is also an opportunity to pass along direct audience questions to the performers with a little extra technology set up. One way to do this is to have the chat moderator cut and paste questions into a Google Doc (where text can be resized to be more readable). Make the Google Doc available to the performer via a large video monitor. If the performer can see large text versions of Chat questions that can be easily addressed and the performer can speak directly during the broadcast to audience members.

Credits, slides and interstitial placements

Careful and complete listing of credits offer the audiences a chance to reveal who the talent is behind the broadcasts. Like film directors or music producers, these credits can develop audiences of their own. The credit and slides are effective ways of mentioning sponsors and collaborators of the broadcast. It's also possible to pre-record an interstitial video to promote collaborators, sponsor or future events related to the performing artists.

SECTION 6 - Findings

Storytelling and Presentation

- Creating value-added content through distinctive presentation

Naturally streaming represents a flattening of the concert experience. Most people will access streams via their laptops or smartphones. As opposed to massive sound systems audio is reduced to small stereo speakers. The immersive tactile experience of being in a room full of people is reduced to a screen.

How then can one go about recapturing the magic of a liveshow on a stream?

Streaming opens up myriad possibilities for the visual presentation of music and in order to create a stream that holds viewers attention one should think carefully about how to use the

visual element.

Intimacy

One of the things that can be really engaging for audiences is the intimacy of a livestream. Solo performers in particular can directly address the camera in a way that puts them closer to their viewers than any liveshow could. Another way of helping to cultivate intimacy is by performing in a personal space - showing audience members a bit of your domestic life or inside your rehearsal studio space. This can give audience members the sense of being in on a secret of seeing something personal - which can serve to heighten the emotional content of the music itself.

Personnel

It's possible for one person to stream and perform all by themselves; but it is preferable to have some helping hands. Generally, you'll need a technician monitoring the stream; setting up all the equipment; and in a multi-cam set-up switching cameras. Expanding beyond that will depend on the resources at your disposal. For venues that already have professional sound systems the advantages of adding a sound technician are clear. Adding camera operators will allow for camera movement and adjustments during the shoot. As your team grows, communicating amongst the team can also become a task in itself - especially in low-light environments where noise must be kept at a minimum so often having a production assistant who can amongst other things pass messages amongst crew members is advisable.

Camera Angles

If you are streaming using a multi-camera setup you create the opportunity for many creative camera angles giving viewers opportunities to see things they could never in a real live show setting. For most setups you will have a central wide camera shot that catches the whole scene but every other camera angle should be fulfilling a distinct purpose - highlighting a different element of the show. Certainly cameras are able to catch close-ups of key moments; but you can also put cameras in impossible places - how about a ceiling mounted camera looking down at the drums? What about a camera on the lead vocalists mic stand? Using height is a good way of creating dynamic shots. When setting up for your livestream you should experiment with different camera angles and try to settle on a few that are really distinct from each other to help craft a narrative throughout the show.

Minimum Internet Requirements to Stream

Generally internet bandwidth is measured by download speed - the rate at which information is transferred from the world wide web to your local machine. When you're streaming, however, this is far less important than upload speed - the rate at which information is transferred from your local to machine to the world wide web. So before venturing into streaming you need to determine whether or not your internet connection upload speed is fast enough to support streaming. There are a number of websites that offer speed tests for your internet connection here are a couple options:

- <https://fast.com/> (initially displays download speed you must click show more info for upload speed)
- <https://www.speedtest.net/> (upload speed is measured after download speed)

What upload speed is ideal for streaming? That depends on a number of factors (streaming platform, image quality, audio quality) but roughly speaking to stream at 1080p you will want an upload speed of at least **5 mbps**. Any lower and you risk having a laggy glitchy stream. For a more indepth look at upload requirements check out this article:

- <https://restream.io/blog/what-is-a-good-upload-speed-for-streaming/>

Cabling

Video Cabling

One of the biggest hurdles to setting up a streaming rig is connecting all the different devices to your computer. There's no one right answer but there are some things that are important to consider. Most cameras will have some sort of HDMI output, some cameras will have an SDI output and some may have a USB output.

USB tends to be the least reliable connection option - especially if the USB cable is also providing power to the camera. It is however easy to use and compatible with most computers via a USB hub or in-built USB ports.

If you are going to use HDMI or SDI to connect cameras to your computer you will require either a capture card or a hardware camera switcher.

HDMI is a relatively stable connection but HDMI cables become unreliable at great lengths, the cables are also very heavy and inflexible which can create issues for storage and increase wear on the camera output ports. There are adapters which let you carry HDMI signals over Cat 5 or Cat 6 cables which can compensate for both these issues but once again by adding additional devices you are introducing more things to troubleshoot (should something go wrong) and reducing reliability. On the note of troubleshooting HDMI cables are often uni-directional so it's important to plug them in the right way (marking which end is the transmitter and which end is the receiver is very useful!). There are also 3 sizes of HDMI so it is important to find out exactly which one works with your camera(s).

Finally SDI, SDI cables are the broadcast standard for a reason. If your camera can output SDI this is often the best option. The cables are comparatively flexible and lightweight; they are also reliable even up to great lengths. Depending on what capture card or hardware switcher you are using you will likely need to invest in converters (<https://www.blackmagicdesign.com/ca/products/microconverters/techspecs/W-CONU-09>) to take the SDI signal and convert it to HDMI which will increase costs.

Audio Cabling

If you are using an audio interface to connect the audio to the computer it should connect via USB or Thunderbolt if it is an older interface for use with Macs. If you opt to use a Dante virtual network this will require an ethernet slot - this is significant because it is ideal to have your computer connected to the internet via ethernet. If your computer doesn't have two ethernet you may need to use an ethernet to USB converter.

Pre-Show

It's important to think about how you are going to promote your show to ensure that you have the best audience possible. As with a normal show paying to boost Facebook and Instagram ads are a great way to get the word out. Your ads should include the date and time of the stream as well as the URL where people can watch the stream or purchase tickets.

Some platforms (Facebook, Instagram and Twitch) will notify all your followers when you go live. If you are streaming on a different platform it's a good idea to prepare a short segment to 'Go Live' on those platforms 5 to 10 minutes before your show actually begins this way followers on those platforms will receive a notification and you can direct them to the stream location.

Description of Show Flow

Once you have gotten the word out, all your equipment is set up and connected to your computer it is time to start the show! Here are some best practices to keep in mind when planning out the run of your show.

In most venues a RUN SHEET or broadcast schedule is used to detail how things will work.
SEE ANNEX : Run sheet Template

Just like a regular show some people are going to want to show up early. It's often a good idea to connect your stream around 15 minutes before the beginning of the show. This will give you a chance to make sure your connection is stable and that everything is going out onto the stream as it should. Unless you want to give your audience a behind the scenes view it is a good idea to prepare a title screen with some movement and some audio - that way when people show up to your streaming location they know they are in the right place and that their set up is receiving both audio and video well. We recommend creating a scene in OBS that features a slideshow of images of the artist accompanied by a countdown timer and some pre-show music.

Showtime

When you are ready transition from your waiting room scene to the main event and do your thing!

End Credits

Streams often require a larger technical team than a regular concert and it is important to credit everyone's contributions. Before the show you should set up a credit scene to be used at the end of your stream. This can be a simple slide or if you are more ambitious could be an animation like you might find at the end of a film. Include in the credits the name of the performers, the names and roles of people who provide technical assistance and this is also a good place to acknowledge any sponsors or funders should you be lucky enough to have them.

General Broadcast concerns

OBS

In all cases the Open Broadcast Software (OBS) was utilized. Though some venues tested and used Slingstudios, mixing hardware Such as ATEM minipro can also send the stream to a broadcast platform, ultimately OBS was used to send images to the broadcast platforms.

SEE:

<https://obsproject.com/wiki/OBS-Studio-Quickstart>

Open Broadcasting Software (OBS) is an open-source camera switcher and stream encoder. It can be used to manage content for your stream or simply as a way to connect hardware and software to your platform of choice. Thanks to the fact that it is open source there is a robust community of users regularly discussing problems and developing solutions in forums online.

Without getting too concerned with all of the options available for live switching if you would like to use OBS simply to connect other software (VJ software for example) or a hardware switcher to a streaming platform it's very simple.

The basic infrastructure OBS uses is scenes and sources. Each source represents a location from which OBS should draw information and scenes are collections of sources allowing the user to layer different elements.

Adding Cameras

To add a camera or a hardware switcher create a scene and select add video source and then select the camera or hardware switcher you would like to add.

If you are using a Blackmagic capture card or a Blackmagic hardware switcher (Atem Mini Pro) then you will add cameras using the add Blackmagic Device source.

Adding Audio

If you aren't using audio from the cameras you will have to add audio independently to each scene. This is quite easy on PCs and you should be able to add an AUDIO INPUT CAPTURE source (this would be your audio interface) or an AUDIO OUTPUT CAPTURE source (this would be for capturing audio playing in other software on your computer).

For Macs this is more complicated and may require additional software such as [Loopback](#) or open-source alternative [Soundflower](#).

There are a few different audio tools available within OBS; if you select your Audio source you can even add VST plug-ins as filters. If you don't want to get too fancy under the Advanced Audio Settings you'll find the most important setting and that is the sync offset. Audio and Video will be processed by your computer at different speeds so you might find that the image and the sounds are not perfectly synced - the sync offset allows you to delay audio by increments of milliseconds to correct this issue.

Creating a Title Card

To add a title screen or credits create a new scene, give it a descriptive name (waiting room, end credits, etc.) and select add an IMAGE SOURCE and find the filename you are looking for and add. This process can be replicated to create a credit sequence for the end of your broadcast.

Recommended Add-ons

There are a number of plug-ins available for OBS that can do all sorts of things from allowing the use of midi controller; to providing VU meters. In particular we found that adding a timer countdown timer at the beginning of broadcasts was useful.

OBS Countdown Timer

- MAC: <https://www.mystreamtimer.com/>
- PC: <https://obsproject.com/forum/resources/countdown-timer-stream-timer.713/>
- <http://aide.lepointdevente.com/en/articles/3887752-how-to-use-obs-studio-to-broadcast-my-virtual-event>
- https://www.youtube.com/watch?v=jKgM18IOsr4&ab_channel=HowToTech

SECTION 7 - Recommended Set-ups and Visual Guides

RECOMMENDED SETUPS

Streaming setups can take many forms the bare minimum required to stream is a cell-phone. But even with a simple cell-phone setup you have to think about placement so a tripod is recommended; maybe even a ring-light. But let's say we want to move beyond a cellphone while still keeping things relatively affordable and/or using things we might already have.

Streaming is basically taking in audio and video content and then sending that to an internet platform. So a streaming kit will include a means of capturing video, a means of capturing audio and a way to synthesize those things and broadcast that to the internet – the latter being most-often a computer.

THE BASIC SETUP

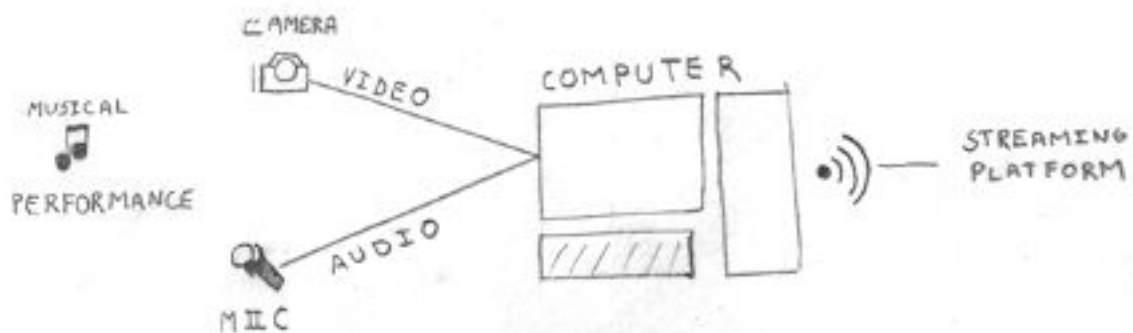


Diagram 1

THE BASIC SETUP - Multi-Camera

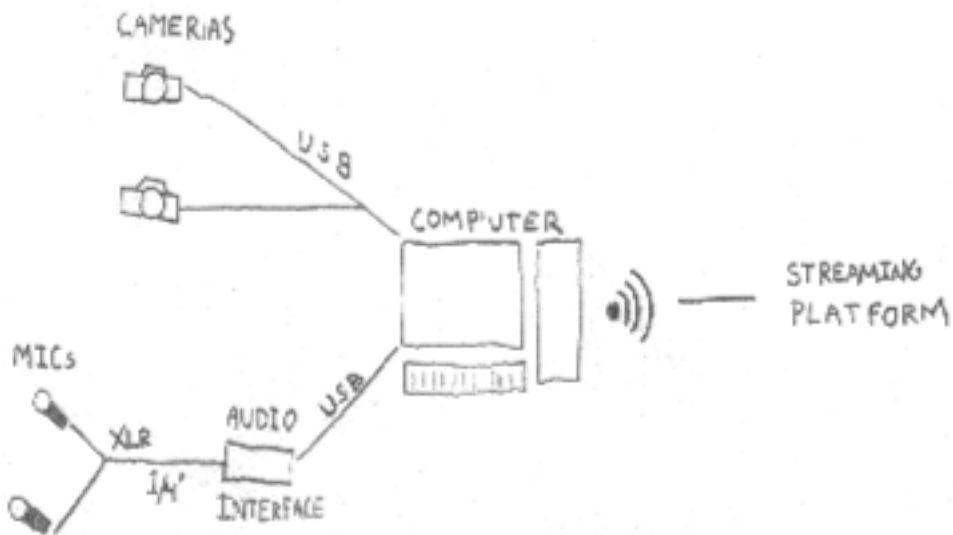


Diagram 2

Camera

There are many webcams that will let you go beyond the built in camera on your computer. One good option is the ZOOM Q2N 4K

<https://zoomcorp.com/en/us/video-recorders/video-recorders/q2n-4k-handly-video-recorder/>

Cost: 200\$

If you have a recent model cellphone there are several apps that allow you to use an iPhone or an android phone as a webcam.

Tripod:

Gorilla pod

<https://joby.com/global/gorillapod-guide/>

Cost: 60\$

For lightweight cameras something like a Gorilla pod is a good option for going hands-free.

Audio Capture:

The most effective way to capture high quality audio is by using an audio interface – this will allow one to plug standard XLR microphones or 1/4" inputs into a computer. A standard incredibly affordable audio interface is the FOCUSRITE SCARLETT 2i2

<https://focusrite.com/en/usb-audio-interface/scarlett/scarlett-2i2>

Cost: 110\$

There are however a couple of alternative methods. If you have indeed opted to use a ZOOM Q2N 4K camera the audio capture on the camera – depending on the set up can be serviceable. ZOOM also made their name producing portable digital recorders which can double as USB audio interfaces – this is however not recommended (particularly in their 4 channel mode) . You might also want to explore USB microphones.

Computer:

Any computer that has a good internet connection is capable of streaming. A standard office computer should be capable of streaming a multi-cam set up at 1080p. While almost any computer should be able to handle a basic set-up – a computer with an ethernet jack is preferable for connecting directly to a modem thus increasing internet stability.

PRO SETUP

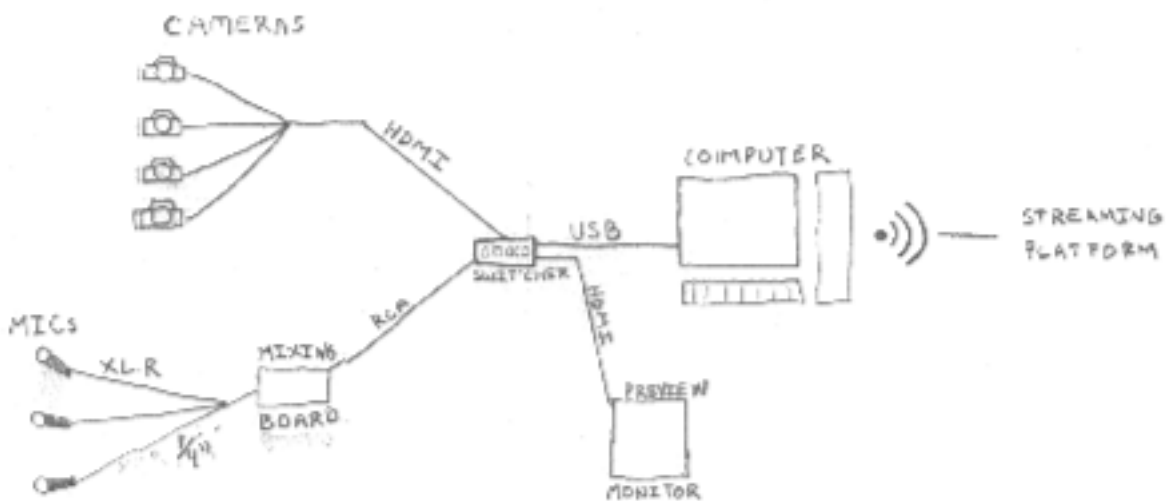


Diagram 3A

CAMERA:

Canon EOS M50

These cameras offer a lot of versatility (having changeable lenses) and also retain their value on the resale market quite well.

https://www.canon.ca/en/product?name=EOS_M50&category=/en/products/Cameras/Mirrorless-Cameras

DSLR – when using DSLR as video-cameras it is important to remember that by default DSLRs can only capture 29 minutes of continuous video recording. It is possible to hack the cameras to

record for longer but it's not recommended. Most cameras will allow you to output signal to a computer continuously beyond the 29 minute limit on recording.

HARDWARE SWITCHER:

By including a hardware switcher in your setup you will be able to connect up to 4 cameras via HDMI. It's also possible to run the audio via the hardware switcher; which can be an option if you want to streamline your setup (see Diagram 3A). This will also often help reduce delay between the image and the audio. But make sure you have the right connections. For a 4 camera set up there are two main options for hardware switchers

Roland V1-HD

<https://proav.roland.com/global/products/v-1hd/>

ATEM Mini-pro

<https://www.blackmagicdesign.com/products/atemmini>

Each of these video switchers have similar capabilities. The Atem mini-pro when used in conjunction with Blackmagic cameras can give the user unparalleled remote control of their cameras and is a good option to consider if you are thinking of using such cameras. The Roland has slightly more intuitive output routing - offering an HDMI preview out and an HDMI output as well as USB connection. The T-Bar on the Roland to create gradual transitions is also a huge boon to creative camera-switching. One of the drawbacks to the Roland is the use of RCA cables to route audio.

TRIPOD:

AUDIO CAPTURE:

Steinberg Ur22c

<https://new.steinberg.net/audio-interfaces/ur22c/>

COMPUTER:

Once again most computers are capable of handling the processing required for this set up. It is recommended that you test

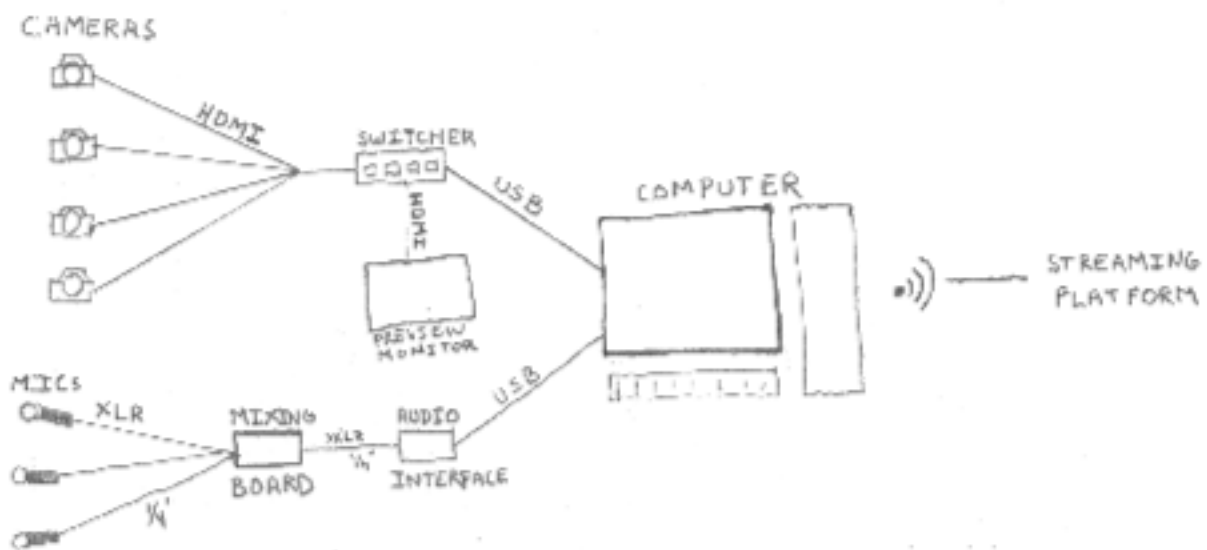


Diagram 3B

PREMIUM SETUP:

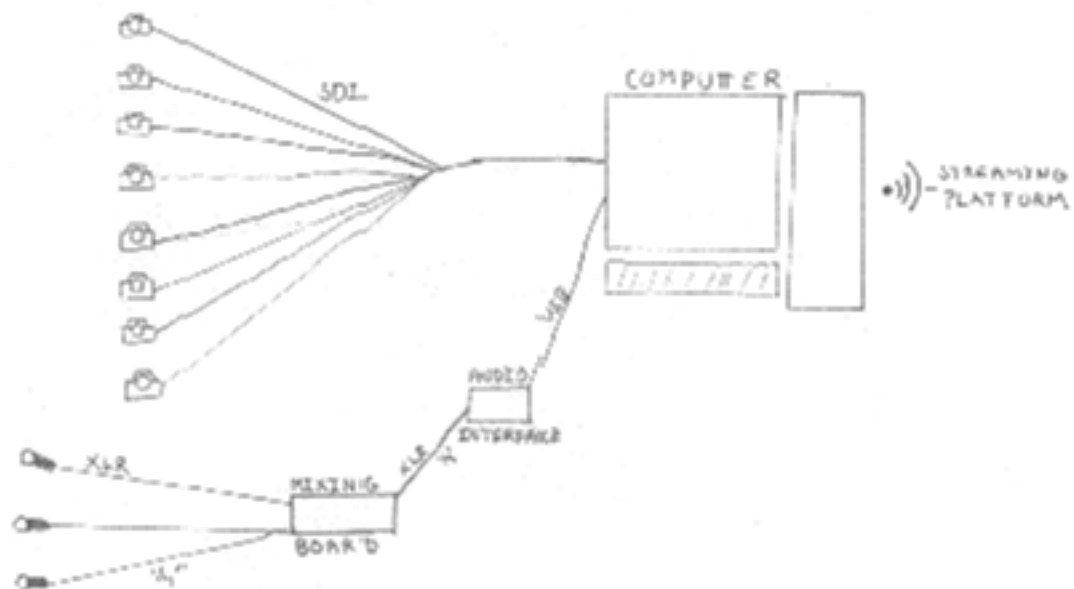


Diagram 4

The ideal set up for live streaming would be using a purpose built computer with a built-in capture card. If you would like a more portable set up it is possible to have a custom built computer assembled in a rack mount case with handles. The crux of the premium set up and the flexibility comes from the computer.

CAMERA:

Blackmagic Pocket Cinema 4K

TRIPOD:

For multi-camera setups where you want some cameras to have smooth motion it's important to have a Fluid Head tripod which allows you to maintain tension (for smooth transitions) while at the same time freely moving from subject to subject.

<https://www.manfrotto.com/ca-en/products/video-tripods/video-heads/>

AUDIO CAPTURE:

Many venues have already transitioned to digital boards which allow for integration with a computer. Dante virtual soundcards are a popular choice to connect boards to computers via ethernet.

<https://www.audinate.com/products/software/dante-virtual-soundcard>

Alternatively, if the venue still is primarily using an analogue board there are several higher end audio interfaces that can be used to take XLR outs from the board into a computer.

Solid State Logic SSL 2

<https://www.solidstatelogic.com/products/ssl2-plus>

SECTION 8 - COVID-19 Concerns

As an artist or a production worker extra attention has to be paid to keep all participants safe where COVID-19 exposure is a potential reality. To keep yourself safe, along with the people you are working with, and audiences who may attend guidelines need to be followed!

In Quebec, CNESST (*Commission des normes, de l'équité, de la santé et de la sécurité du travail* or *Commission of Norms, Equity, Health and Security of Work*) is the organization that is responsible for workers health and safety. They offer a range of documentation for use by venues conducting Audio/visual productions. Most of the documentation is available in English though for some sectors it is available in French only.

CORONAVIRUS (COVID-19)
Preventive Measures for Workers' Health in the Performing Arts Sector, Performance Halls and Movie Theatres

PHYSICAL DISTANCING APPLIES TO EVERYONE:

← 2 m →

- At work, from start to finish
- During lunch and breaks
- Remind everyone about the rules
- Avoid direct contact for greetings – use alternative methods instead

SO DOES HYGIENE:

- Wash your hands regularly for 20 seconds
- Sneeze and cough into your elbow
- Encourage electronic payment
- Make a hydroalcoholic solution available

EMPLOYERS MUST:

- Arrange work so that people can maintain a physical distance of 2 metres
- Regularly clean surfaces that are frequently touched
- Reduce the number of spectators present

COVID-19 Hotline:
1-877-644-4545
To contact a CNESST inspector:
1-844-838-0808

Commission des normes, de l'équité,
de la santé et de la sécurité du travail
[cnesst.gouv.qc.ca/coronavirus](https://www.cnesst.gouv.qc.ca/coronavirus)



Several guides apply for venues who may choose to produce live broadcasts.
For Performing Arts:

<https://www.cnesst.gouv.qc.ca/salle-de-presse/covid-19-info-en/Pages/toolkit-arts.aspx>

For Audio Visual Production (Studios)

<https://www.cnesst.gouv.qc.ca/salle-de-presse/covid-19-info-en/Pages/toolkit-audiovisual-production.aspx>

There are separate guides for restaurants and bars, places of worship, schools, and for other sectors which may apply.

Guides may include posters (as above) for venues and daily checklists:

<https://www.cnesst.gouv.qc.ca/salle-de-presse/covid-19-info-en/Documents/DC100-2169A-B-liste-production-audiovisuelle.pdf>

<https://www.cnesst.gouv.qc.ca/salle-de-presse/covid-19-info-en/Documents/DC100-2169A-B-liste-production-audiovisuelle.pdf>

GMMQ - The Guilde des musiciens et musiciennes du Québec

Specifically for music artists Pertinent information is also available from the

<https://www.gmmq.com/en/news/covid-19-situation-updates#>

SECTION 9 - Useful Links

Useful Links:

<https://thepointofsale.com/organizers/services/streaming>

<https://sidedooraccess.com/site/perform-online>

Tip Jar systems

<https://blog.gigmor.com/7-virtual-tip-jar-options/>

Facebook for Business Livestream

<https://www.facebook.com/business/help/626637251511853?id=1123223941353904>

<https://brightspark-consulting.com/facebook-live-via-obs/>

APPENDIX

Run Sheet Template V1

https://docs.google.com/document/d/1UMf1nYkRRK0XBFSb5z4XI5z98EZObN1_4BJ3ZnKzjeg/edit

ARTSCAST VENUE SET UPS

<https://docs.google.com/presentation/d/18kuUnetBB-AVQR1tHMedZ5w4fVgV1j-M/edit#slide=id.p6>

ARTSCAST COMPENDIUM V1.0

Written by: Daniel Webster, James Goddard, Rio Victoria Jestin

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