

Livestreaming Considerations

In the midst of the current public health crisis, all organizations and individuals have been faced with developing new ways of “doing” life. Our interactions, habits, traditions, and general flows of living have been interrupted, altered, or brought to a screeching halt altogether. Social distancing and ordered closures are especially disrupting in the life of congregations. Churchgoers are particularly attuned to their interactions with fellow members, fellowshiping and connecting before the service, during the Passing of the Peace, and during Coffee Hour. This contact is essential to the sense of each congregation’s community. Likewise, the sense of community built and reinforced via sacred worship is an essential, **the** essential, aspect of our congregational life. This disruption of experiencing the Holy in community with one another has been disorienting and discouraging.

In response to this unparalleled disruption in the life of each of our congregations, many churches are attempting to keep some semblance of normalcy by offering an online worship experience. Some of our churches are offering a fairly “normal” service with a few modifications while others have radically altered what typical worship looks like for them. Regardless of what this worship experience looks like, the commonality is finding a way to disseminate worship media—printed, audio, and video—to congregants in their homes or wherever they are currently.

As churches move to worshipping online, there are myriad considerations before a technology plan can be implemented. Unfortunately, there is no one-size-fits-all approach to livestreaming that gives a quick and easy answer for how to set this up decently and in order and with the quality that all of us like to achieve in our worship. Each of our churches who are exploring options to achieve online worship have different resources, infrastructure, levels of knowledge and expertise and needs. The following is meant not as a nuts and bolts guide on how to plug Wire A into Connection B or setting up an account with www.streamchurchvideo.org, but as a starting point to think through expectations, resources, possibilities, and concepts. It will offer some basic workflows to help in understanding how the process works.

What works for one church will not necessarily work for others. Remember, there is a very long continuum of complexity and cost. The trick is finding where your expectations meet your resources meet your budget meet your needs.

What do you want your worship to look like?

This is the most fundamental question moving forward in your plans for livestreaming. Are you wanting to replicate a typical service complete with music, liturgy, litanies, etc. or are you planning on a scaled-down, more casual experience consisting of scripture reading, a message and prayers? Once you have a handle on what you want your online worship to look like, you can begin to formulate a plan. A basic rule of thumb—the more complex your worship service online, the more complex the set up.

What resources do you have on hand?

There is no denying the fact that streaming can be expensive. It doesn’t have to be, but it definitely can be. Adding to the above rule of thumb—the more complex your worship service online, the more complex the set up and, generally, the more expensive it could be. You or your church may have some of the resources on hand in order to at least get started. A cell phone, a video camera, a computer with

a webcam, microphones, that tangled ball of a/v cables stashed in the closet, a solid internet connection, the church's soundboard, etc. can be supplemented with a few strategic purchases to create an acceptable streaming service. Putting together a streaming set up that meets the needs of you and your congregants takes some trial and error. The first service or two or three may have some hiccups and challenges. All parties involved need to keep this in mind and be forgiving and not overly critical. Don't forget that resources also include people and their knowledge and perhaps equipment that they are willing to let your church use for a time. You may have congregants sitting at home, not at work or school, who have the know-how needed to help you get things set up.

What possibilities are there?

This is the point where your worship plan meets the resources you have on hand and will lead you to what additional communication hardware you may need to procure or set up. There are really unlimited possibilities in how to make all of this work and that is what makes the process so initially intimidating. In getting off the line, keep things simple, both the service and the set up. Do those things well that you choose to do. Making sure the technology, platform(s) and message mesh is the most important consideration. More of this will be covered a bit more in the workflow section.

How does all of this come together?

It is time to really begin thinking about convergence. How do all of these pieces fit together to deliver a meaningful, relatively glitch-free worship experience for your members watching online? Hint: There is no guarantee that there won't be any issues, even after months and months of successfully streaming your service. There are far too many variables, some of which you will have no control over, that can affect the quality of the stream.

With this in mind, let's explore the basic technology workflow of a livestream, followed by some options for putting all of this together.

- 1. Capture devices** How will your media be captured? This includes video and audio. Though most input devices have built-in audio capture, some are better than others. For any capture device, consider utilizing an added on audio capture device such as a shotgun microphone in simple set ups or output from a soundboard in more complex set ups. Audio quality is actually more important than video quality for a streaming service. Viewers will be more apt to leave a streaming media event if the audio quality is substandard than because of poor video quality. An additional consideration is if you want the service content saved on the capture device for later editing. Video and audio quality will be reduced as the media is encoded for online viewing, so planning to work with it post-livestreaming in its original quality won't be possible unless it is saved on your capture device.

Options (from most basic and inexpensive to complex and expensive): cell phone, webcam—either built in or plug in, action camera with streaming capabilities (GoPro, Mevo), video camera—many levels here, multi-PTZ (pan, tilt, zoom) camera joystick controlled system

Microphones/Audio input: There are many different types of plug-in microphones for the type of device you are using. Some of these will require additional set up on whatever device you are using. Rode and Azden are two companies whose plug-in shotgun mics I've used. Also, some devices will require adapters in order to utilize external microphones that use the standard 3.5

mm headphone jacks. There are also intermediary devices, such as the iRig line, that allow you to plug various audio inputs, including the feed from your soundboard, into them and adjust volumes and then output the audio signal to your capture device. The best possible audio source for your livestream will be an outbound soundboard mixed signal utilizing microphones and other audio inputs. This will eliminate or reduce ambient sounds and individual channels can be adjusted as needed. Each church has a unique audio set up so more guidance really can't be given.

- 2. Encoding and uploading** Once the media is captured, how will it be moved to the internet? Simple set ups utilizing cell phones or webcams are already connected to the web and can stream directly to an online platform such as Facebook or YouTube for viewing. The more complex the set up, the more equipment and steps will be necessary to encode (put into a format suitable for streaming) and place it online.

Once you step away from the baked-in capabilities of a personal device equipped with a camera and connected to the web, then it will be required to use devices to capture and encode the media and get it ready for upload to your preferred platforms. The sheer number of options in doing this is staggering and requires research and an audit of your technology infrastructure. In general, there are a few ways to achieve this. Your capture device(s)—in this case usually a better-than-consumer-grade video camera with external audio jacks or PTZ system—will feed your media into either a dedicated encoding/uploading device or a capture device which is then connected to a dedicated and correctly speced livestreaming computer system equipped with software that completes the process. This is a broad topic with many, many options with a wide range of capabilities and pricing that goes well beyond what this document is attempting to achieve.

- 3. Platform** Where will the media be presented in an easy and accessible manner for your congregation? Once the media has been capture and encoded, it will need to be sent somewhere. There are many platforms from which to choose. Facebook is the most accessible and popular. It has a fairly easy interface, especially if you are using a personal device. The recommendation is to create a business/organization page and not to use a personal page for your service livestream. This is also a much bigger topic than this document will cover, so if you need any assistance in doing this, if your church doesn't already have an official Facebook page, I would suggest searching online for a step-by-step guide. Facebook will allow you to access the video later if you choose not to delete it after the livestreaming session is completed. You can also download a copy of the media.

YouTube also allows for livestreaming. If you aren't currently using YouTube as a platform for your church, you will need to create an account, have it verified, set up a channel, and choose the options for privacy, publication, etc. that you wish to use for your church. There are helps at YouTube to guide you in doing this as well as other online tutorials. YouTube is accessible to everyone and doesn't require anyone to necessarily set up an account or membership. Livestreaming to YouTube does require a bit of understanding of setting up to streaming locations and IP addresses, but, again, there are tutorials and help files located both at YouTube and many other online locations. Google is great in trying to figure all of this out. Embedding YouTube videos on the church website is possible with a bit of HTML know-how.

If your church has a website, some webhosts offer video streaming in their hosting packages. Sometimes livestreaming capabilities are an add on and increase the cost of hosting the site. Streaming to your website does have some benefits. The ability to embed the hosted video on a page in the church website structure is built-in. Most webhosts will allow various amounts of video storage in order to archive your livestreams and allow users to watch previous services.

Vimeo is another video upload and streaming service, but does have a cost. There are myriad services that are offered that cater specifically to churches. They have different features, price ranges, support services, storage and archiving capabilities, and so forth. If this route is chosen, research online which one will best fit the needs of your church and perhaps investigate if any other local churches or clergy you know are utilizing the service you are interested in using.

Some churches have also turned to using conferencing sites such as Zoom or GotoMeeting to hold worship. In such instances as this, members are given a link on which they click, and then are joined to an online “sanctuary” where worship is held. There can be some interaction if so desired by the church leadership, but the limits and disparities in differing technologies among members can pose obstacles to doing this effectively. It works best if each participant/physical location has a device with an enabled camera so that all faces can be seen. Audio-only options, such as www.freeconferencecall.com, can be used as well, but less effectively for worship.

There are many considerations to take into account when deciding to livestream. This document attempts to bring to light at least some of them. Each church will find its own needs, expectations, pitfalls, successes, and failures in livestreaming in what has become our new normal. What works for one church will most likely not work for another. It can be discouraging and even slightly maddening, especially when something works one week but then totally fails the next, but livestreaming can also be a joyous way to stay in community with members surviving in isolation. Urge your members to be patient. Ask them for feedback and constructive criticism. Take some time to review the livestreamed service later so that you can make adjustments for the next week.

Another consideration for churches who don't feel up to the challenge of livestreaming their service at the present time—partner with a church that already does livestream. Urge your members to tune in to one of the other WVP church's streaming service. A list of these churches will appear below as well as an updated list put on the [WVP website](#) with more information. Partner with one of these churches to perhaps do joint services.

If livestreaming isn't possible, there is the option of recording the service, editing and posting either the entire service, multiple parts of the service or just the sermon. This is an entirely different topic. If you have questions regarding this, please contact me.

I will be available to remotely answer questions, either via cell phone, (317)923-3681 ext. 036, or email, cshaw@whitewatervalley.org. Feel free to contact me.

FURTHER TIPS:

- When using a cell phone, position the phone in landscape, not portrait! Record in the orientation of the screen on which others will watch the media. Also, use a tripod or other steady base for your cell phone and microphone.
- Streaming music licensing. If you will be using music during your livestream, you normally would need to have the correct licensing. Some of the licensing services are offering free streaming licenses at the present time. If you already have a worship license, this does not cover streaming. An additional license is usually available from providers such as CCLI or OneLicense for these purposes.
- Lighting. Avoid harsh backlighting. Try not to have a window behind you. Use soft front lighting, such as a shaded lamp to evenly light the faces of those on camera.
- Location. This is a big consideration. Will you be in your sanctuary, in an office or another location? The sanctuary may seem like a great choice, keeping the feel of normal worship. This can work, especially if you have already been livestreaming with equipment that utilizes the sound board feed or if you have purchased and tested equipment that directly records the audio input from those speaking. Using just a cell phone, tablet or laptop with no additional audio equipment will create a very hollow, undesirable audio track with lots of echoes and will be difficult for many to clearly hear. If you opt for livestreaming from another location, make sure it is quiet and well-lit, paying particular attention to the humming of electrical equipment, HVAC equipment, etc.
- If someone will be assisting with the camera and/or audio equipment, let your tech person know when and where you and any others who are part of the service will be standing, sitting, speaking, etc. before the livestream begins. If you are the only person participating and doing your own camera work, try not to move too quickly or out of the video frame.
- Test things out beforehand. Set the camera up, turn on the video camera, sit down, and talk. Turn off the camera and play back the video you just recorded to see how it looks and hear what it sounds like. None of us like doing this, but it's important in order to improve the quality of the stream.
- Make sure that your connection to the internet is strong. Cell phones and tablets will most likely only be able to connect via WiFi. Any other equipment should always use a wired ethernet connection in order to make sure that there are as few dropped frames and hiccups as possible. Even great internet connections can bottleneck or slow down at the most inopportune times.

Churches that currently livestream:

- [Irvington P.C., Indianapolis](#)
- [Second P.C., Indianapolis](#)
- [Northminster P.C., Indianapolis](#)
- [First P.C., Fort Wayne](#)
- [John Knox P.C., Indianapolis](#)
- [First P.C., Greensburg](#)

- [First Meridian Heights P.C., Indianapolis](#)
- [New Hope P.C., Fishers](#)
- [Fairview P.C., Indianapolis](#)
- [Faith P.C., Indianapolis](#)
- [Tabernacle P.C., Indianapolis](#)
- [First P.C., Richmond](#)
- [First P.C., Shelbyville](#)
- [CrossRoads Church, Westfield](#)
- [Zionsville P.C.](#)