

**VIRTUAL REHEARSALS ARE VIRTUALLY IMPOSSIBLE, SO ...  
LET'S MAKE "ZOOM" MUSIC VIDEOS ... *Not as easy as we think***

**The Fake "Virtual" Performance:**

Those "Zoom call" videos are not really Zoom calls. You can't play together over Zoom and make anything you'd want people to hear. There are too many lag/latency issues and it requires an extremely fast internet connection to even make it possible. That technology will arrive some day, but we're not there just yet. Especially with the average WiFi speed we have at our homes.

**If they're not live over Zoom, what are they?**

They are live performance captured completely by a phone or web cam, but they are recorded individually and pieced together as one project to look like a Zoom call or group video chat. When done properly, it's convincing and captures the feeling of a live performance. It can be done with just a phone, but the audio quality will never be good. The worst part about these exciting projects is the time it takes to put it all together. The more diverse the sound quality, the more time consuming it is to make it sound good. The larger the group, the more sound engineering knowledge and time to dedicate to the project is necessary.

**Here's what you need to make a Zoom music video happen:**

Each musician will need the following:

- **Two mobile/recording devices** — A phone, laptop, iPad/tablet will work. However, there are very few devices that can capture live sound well. So, a good microphone is recommended. More than one device is necessary because one will capture video and audio (the performance), while the other is to monitor the guide track (with headphones) and play along with.
  - Mobile devices or lower-end cameras will most likely have very poor built-in mics that are designed to pick up a wide pattern of sound.
  - Unless you have a higher-end camera that has a built-in shotgun mic, you are going to want to consider recording audio separately from your video. This is likely the way to go, in any case.
- **Guide track** — This is the complete arrangement of the piece of music for everyone to play along to, to stay together. This takes time to set up properly, with a few really important "safety" ingredients, so that everyone has a chance of starting together, making a cleaner recording, and lowering the amount of post-performance production time to edit/adjust/time-shift recordings, before work on getting a good mix. Adding several measures of click track to the beginning is important, to give everyone time to set up, give a "clap" to start, and play, without everyone being lost at the top.
- **Video editing software** — If your group has four or less people, Adobe Rush is a simple and affordable video editing platform that makes it easy to combine these separate clips into one video. There might be some other free options out there. You can't do this in iMovie. If you have more people, you need video editing software that is professional grade and allows for many video and audio tracks.

## Some Options for recording and posting Videos:

Streaming a solo performance on Facebook is relatively easy. You need a good internet connection, and a device like a phone, tablet, or laptop. Set up your device, access the camera in Facebook, click on “Live” and you’re already broadcasting. Musicians with an official Facebook profile or verified Instagram account can host a live concert and add a payment donation button with the iOS or Android app.

If you have an official YouTube channel with more than 1,000 subscribers, you can enable live streaming. Using an encoding program, you can also produce more complex videos using multiple cameras and other options, and then stream it through YouTube Live.

Live streaming with multiple performers in multiple locations can get impossibly complicated, particularly due to lag time, whereby musicians are hearing notes a couple of seconds after they are played. A video using multiple musicians can be assembled, provided all the musicians play with a click or guide track that ensures the exact same tempo through all the recordings. It depends on the ability of the musicians to play their parts in isolation. The Rotterdam Symphony did this, using 19 musicians. The video took about a week to produce.

Outside of social media platforms, Zoom is the live streaming software of choice. Zoom can allow musicians to play together via the meeting function. The “Share Screen” and “Multiple participants can share simultaneously” functions should be enabled. You can include musicians only, or you can make it public, so an audience can listen. There are several problems with Zoom and more than a few people on the call. More on that later ...

Other options are available for musicians, particularly those who want to pursue live streaming on a regular basis. Twitch is an app known more for video game streaming, but it’s also free and available to musicians for live performances. Similar apps include YouNow, Mixer, and Periscope. For musicians who just want to play together, there are many options online, like [Ninjam](#) or [Jamulus](#).

There are a several major caveats with regard to live streaming, which are exponentially more complicated, as you add more people to the call:

- A stable and adequate internet connection is the deal breaking stipulation. Hardwire connected to Ethernet is nearly a must. Since many people can’t hardwire, an incredibly wide bandwidth and High-Speed Internet is a must
  - Not only do few people have fast enough Internet/WiFi, but, those who do, can’t realize what they pay for with everyone at home, drawing from the same source
- Audio quality will vary with multiple different recording devices.
  - It’s a challenge to get gain, microphone placement, and other audio settings right to achieve even semi-acceptable sound quality
  - The lag/latency issues make it impossible to play live with multiple musicians
  - The “Share Screen” and “Multiple participants can share simultaneously” functions on Zoom should be enabled, but it makes the lag/latency issue worse at times
  - While one musician is playing, they don’t hear anyone else. You only hear others when you aren’t playing

# **“Does anyone know how to create one of those Eric Whitacre-style virtual choir videos? I’d like to create one with my own choir/band/orchestra/flute ensemble”**

**Article by** Katie Wardrobe – Australian music technology trainer and consultant

<https://midnightmusic.com.au/2020/03/dear-music-teachers-please-stop-asking-how-to-create-a-virtual-choir-video/>

## **Creating one of these videos is no easy task.**

I want to save you the heartache of planning such a project, researching the method, announcing it to your students and then discovering it’s an exhausting project that takes MANY hours of work.

There is no magic app.

Your students will need to adhere to strict guidelines when they record and submit their videos.

You need some decent video editing skills to pull it off (or an experienced video editor friend). And you need MANY HOURS of time. Many.

## **It can’t be that difficult can it?**

There are a few ways you can go about this task, but the pro videos you see on Youtube (like Eric Whitacre’s beautiful Virtual Choir videos) follow a process along these lines:

1. Create guide audio tracks and/or a silent conductor for every single instrumental part in your ensemble
2. Send the guide tracks to performers
3. The performers rehearse with your guide track until they are ready to record
4. Performers press record on their video recording device, press play on your guide audio track (and/or conductor video), ensure they have headphones on in order to hear said guide track and to prevent the sound of the guide track being re-recorded in with their own performance of their part and then play the entire piece through from start to finish in one take (fingers crossed there are no errors and it only requires them to do one take)
5. Performers save their video, export it and send it to you
6. A skilled video/audio editor trims the beginning and end off the video and cleans up the audio of every single performers’ video
7. The same skilled video editor then imports all the videos into their professional-level video editing software and synchronises every single student video, so that it sound like a unified ensemble
8. They also resize each separate video so that they all appear at the same time – Brady-Bunch style – on the screen
9. Then they make it all look beautiful: add fade ins and outs, vary the videos showing on the screen at any one time, adjust the lighting effects and more
10. Lastly, they export the final version and upload it to a video-sharing website

If you'd like a more detailed step-by-step list, Christopher Bill (well-known trombone-playing Youtuber) has shared an excellent document (Included on Page 7 of this document).

Now – I'm not saying that this project is totally unachievable by a school. I'm also not saying you shouldn't ever consider it. I think it could be a worthwhile project to pursue....in around 12-24 months' time when we are (hopefully) not in the midst of a pandemic.

I just think there are more important things to focus on at this time.

There are many alternative ways you can foster music-making in your students while they are learning from home:

- Keep them playing by asking them to continue their regular individual practice and have them submit an audio recording – or a simple video – of them playing alone.
- Get them to take part in a silent Zoom rehearsal so that they have a chance to connect with one another and with you (they miss you!).
- Give them some creative tasks – composition, listening, responding, rhythm practice, engaging ear-training games. Or have them take part in a fun activity like a Music Olympics.

I suspect that many of the music teachers who would like to tackle this project have never tried their hand at video editing before.

This means that they will be embarking on a VERY steep learning curve in order to learn the software, to figure out the workflow and then to put it all together.

Did I mention that it takes MANY hours of work?

### **But what about the Acapella app? Doesn't that do it all for you?**

The Acapella app is fantastic and yes, it does help you create multitrack videos without the need for fancy or expensive video editing software. You can use your phone, select a layout (the number of videos you see on the screen) and sing each part one by one.

You can even collaborate with others:

- The first performer records a part in one of the video boxes and then sends it to another person
- The second performer records their part and sends it on to another person
- And so on. You can have up to 9 collaborators on a single project

**BUT** there are a few things to consider:

- The app focuses on social sharing and links with multiple social media services
- The free version has a time limit which can only be extended by signing up for their paid monthly or annual subscription
- You can have a maximum of 9 videos in your project which won't suit a larger ensemble

The Acapella app would be a great option for a personal project by a student, or even a collaborative project with a couple of students.

If you decide to have a go at using the Acapella App, here are a couple of tips:

- Tip #1: you can upload a guide track – a pre-recorded video – into your grid which you can use to help you synchronise all the other videos you record. You can then delete the original guide video (and replace it with another video part, or with an image).
- Tip #2: when you set up a new project, select a grid with more video squares than you think you will need. It is not possible to add additional video frames once you've started your project. You will need to start over. If you have extra video frames left at the end because you didn't need them, you can fill the empty boxes with images or a background.

Now – there is an Acapella App user – @jecissalynn – who has managed to create big multitrack a cappella videos using the Acapella app. Her method is to combine multitrack videos made with the Acapella app in the PicPlayPost video editing app (which is made by the same developer). Her results are fantastic, but once again, it's a fiddly process involving a lot of time.

If you'd like to learn more about @jecissalynn's method, open the Acapella app, tap Discover and type in the hashtag #howtomakeabigacapellavideo. You'll see two how-to videos that she has created to describe the process she uses.

**But I really want to do this. There MUST be an easier way!**

If you really want to recreate a full ensemble sound with your students, I think there is one slightly more simple approach to this project. It won't be quite as impressive as the "pro" virtual choir option, but it could still work.

The basic steps would be:

- Send your students guide tracks to play along with
- Ask each student to record their part – audio only – while listening to the guide track (making sure headphones are on when they record)
- Have the students send you the audio file they've recorded
- You combine all of their audio recordings into a single project file in a digital audio workstation (the name given to multitrack recording software like GarageBand, Soundtrap, Bandlab, Mixcraft, Logic Pro and so on)
- You then clean up the audio tracks, adjust the levels and so on in the DAW

You could even consider having students contribute their recording directly into a collaborative project by using Soundtrap – an online, web-based DAW.

If you want to include the video aspect with this approach, you could have all of your students join you on a Zoom video conference call in gallery view and silently lip-sync their parts (or mime if they are instrumentalists) while they watch you conduct the piece and/or while they all listen simultaneously to the same guide track.

You will record the Zoom call and you'll end up with a single video of your students all singing or playing simultaneously, Brady Bunch-style on the screen. Note that Zoom's gallery view is limited to a maximum of 49 people at one time.

Now this is something I COULD recommend that you consider, especially if you have had experience with a digital audio workstation (DAW) before. It will still take a number of hours to put together, but at least the fiddly video-editing aspect will be removed from the process!

*I'm Katie Wardrobe – an Australian music technology trainer and consultant with a passion for helping music teachers through my business Midnight Music. I'm a qualified teacher but I don't currently teach in a school. I help teachers through my online professional development space – the Midnight Music Community – where there are tutorial videos, courses, links and downloadable resources.*

*I like to focus on easy ways to incorporate technology into what you are already doing in your music curriculum through a range of creative projects. I also run live workshops and have presented at countless conferences and other music education events.*

*If you want simple, effective ideas for using technology in music education, I would LOVE to help you inside the Midnight Music Community.*

<https://midnightmusic.com.au>

## Christopher Bill's Multitrack Editing 101

Hi folks! If you haven't checked out the initial document floating around, definitely start with that! It's my [guide to remote music education](#). (See page 13 of this document – many tech options)

If you're looking to have your students record parts of an ensemble piece for you to put together virtually, you can do this, but you're about to take on the roles of an arranger, producer, audio engineer, video editor, as well as dealing with logistics and troubleshooting for students. **If you're unsure about learning all of this stuff, I recommend starting with a short audio-only multitrack.**

**Here are examples of the videos I create with this method:**

[Shenandoah - Virtual Ensemble \(non-professionals, all recording remotely\)](#)

[Song for Japan - Virtual Ensemble](#)

[Bonehemian Rhapsody - Professionals, I recorded/filmed](#)

[Daft Punk - Harder Better Faster](#)

[Circles - High school group, I recorded/filmed](#)

### Workflow

- Design the project start-to-finish
  - Choose the piece/arrange the piece
  - Decide how it's going to go. Soloists? Small break-out ensembles? Decide it all up front and try not to change it unless covering up an issue later.
  - Create play-along tracks for folks to record to. A click track or metronome is not enough. More on this later. To simplify the editing later, it's a good idea to have four pickup bars to the piece, and have the students clap big, loud, on camera, and in time on the down beat of the second bar.
  - Create a detailed document for students that walks them through literally every second of the project.
  - Create a list of everybody submitting, their contact info, and the part they'll play. You'll reference it and check it off after every step.
  - Create a spot for them to upload their files. I use Google Drive.
- Send out materials
  - The guidelines document (included on next page)
  - Sheet music
  - Play-along tracks
  - Part assignments
  - To simplify video editing significantly, you can include a picture of how each student should be framed in the videos in the guidelines document (as well as any dress code or background if you have anything you'd like done with that).
  - Check off your list and make sure you've sent it to everyone.

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**GUIDELINES**  
**(Just a few rules, please read thoroughly!)**  
**Repertoire: Piece name**

1. Download the backing track. This can be found here (link to Google Drive folder with sharing on).
2. Practice your part along with the backing track.
3. When you're ready to record, do some tests with whatever equipment you have (could be a zoom recorder, could be a smartphone, etc.). Play the softest and loudest passages using each device you could record on. For brass instruments, don't point your instrument directly at the microphone. Anything you can do to eliminate background noise and distortion in the recording, please do!
4. Any guidelines for what to wear and what the background should look like.
5. Film in landscape. Your video framing should look as close to this as possible:



Please spend some time **matching your framing up to this example.**

6. Record your video **using headphones**. First, you'll hear instructions to line up a clap, please make sure **the clap is in time, and both very audible and visible!** Then, get ready to perform!
7. Upload your recordings/videos here (link) by DEADLINE. If you run into any issues, please email your instructor directly. (If you're using an external audio recorder in addition to video, just label your audio file in all caps AUDIO ONLY after your name.)
8. Rename your file in the following format:

**INSTRUMENT - PART - NAME**

Ex: Trombone - 2 - Christopher Bill

**Audio suggestions:**

- **ALWAYS USE HEADPHONES**
- If you have access to an external microphone, that will usually yield better quality audio.
- Apps:
  - Mideo Lets you record video and play an audio file simultaneously
  - Filmic Pro gives you improved advanced camera and audio controls.
  - Dolby On: gives you advanced control over your smartphone mic controls.
  - Plenty of folks just use their default phone camera app and experiment with placement, orientation, and room acoustics. You can angle away, but please stay true to the video framing!

**Video Suggestions**

- Use a well-lit area so we can see your face and your instrument.

- Now we wait...
  - Be there to answer questions (musically and technically)
  - As the audio/video recordings come in, download them and start organizing. Create a labeling system or folder system and keep it consistent. Every time you label the files, they should have the name and part.
  - Check off your list and make sure you've received everyone's files.
  
- Audio Editing
  - Consolidate file formats. I convert everything to .wav
  - Import them to your DAW of choice
  - Edit! (More on this later)
  - Check off your list to make sure you didn't miss somebody.
  - Mix/Master/Finalize audio
  
- Video Editing
  - Consolidate file formats. I convert everything to MP4/H264
  - Import them to your video editor of choice
  - Edit! (More on this later)
  - Check off your list to make sure you didn't miss somebody
  - Render/Proof your final product
  
- Marketing (if just sharing internally, not super necessary)
  - Photoshop a simple, eye catching thumbnail
  - Write up a short, hopefully one or two sentence description
  - Create a list of links you want to plug (your institution, composer credit, etc)
  - One final time, use your list to copy in the folks who played to credit them in the description

### **Software, Techniques, & Tips**

- I'm sure most of you know, but [Finale](#), [Sibelius](#), or [Dorico](#) are the industry standards for notation software. [Noteflight](#) and [Musescore](#) are free options.
- The play-along track *can* just be a metronome, but it's nearly impossible for even a professional musician to know where their individual part sits, let alone a student. The next-best option is to have them record with a drone and metronome, but best case is to have them play along with the notation software audio and click track. *Alternatively if it's a piece that already exists, you can have them just play along with a recording of it that you like.*

- You can export an audio clip from your notation software, but I recommend exporting the MIDI (so you can add tempo alterations) and then creating the piece by importing the MIDI to a DAW. I use [Ableton Live](#), but other industry standards are [Logic](#) and [Pro Tools](#). Free options are [GarageBand](#) and [Audacity](#).
- Within the DAW, create the piece exactly how you want it to sound, and add a metronome track with a couple bars lead in. You can change the tempo as you go to incorporate tempo changes and rubatos, and make sure you play with that enough to make it sound natural.
- For the student list for checking and double checking, I use Google Sheets or Excel and have rows for each step of the process so I can cross them off after each step.
- The guidelines document should include...
  - Recording best practices (most won't have a nice mic and camera, so have them try out a few different setups to make sure they don't distort at the loudest parts and that there isn't too much background noise).
  - Deadlines
  - What you want them to wear
  - What kind of background for the video
  - Any musical notes
  - A link to the folder where they'll upload their final audio & video files, as well as strict instructions for how you want them labelled. This will be very helpful later on... something like "Christopher Bill - Trombone 3 - Audio" (Again, some will have separate mics, some will just have a video with audio from the camera.)
  - Most importantly, tell them to wear headphones at least three times!!!
  - It might make your life easier later if you also ask them to clap or stomp right on beat one of the second bar of lead-in so you can line it all up.
- Host files for folks to download on something like [Google Drive](#), [MediaFire](#), [WeTransfer](#), [DropBox](#)
- Converting files. I use [Aimersoft Video Converter](#), but there are many alternatives, some free. Create two folders, one for video and one for audio and copy all of the files so you have two versions of each. Go through and make sure you have every person accounted for in each. The video folder should all be videos, but the audio folder will have some audio and some video, depending on if the student had an external audio recorder or not. In your file converter, convert all the files in the audio folder to .wav, and all the files in the video folder to MP4 (H264), and make sure you know where they're being exported to. This step is crucial because it lowers the stresses on your computer during the editing process.
- Audio editing, again, I use Ableton, but any DAW will do. Reiterating from before, Pro Tools/Logic/Ableton for industry standard, GarageBand/Audacity for free options.
- Line up your audio and go to work!
  - Your job is to make it sound natural. Find the start of each phrase and line them up. If somebody plays a wrong note, you can delete it, find a right one to replace it

with somewhere else in the piece, or leave it. You now have creative freedom over how you want it to sound. Too perfect is sterile, too raw is not fun to listen to.

- Panning. Recreate the ensemble. Pan the instruments around the room as if you're standing in front of them.
  - Compression. Compression lowers the loudest parts of a track. For something with a lot of parts, it will allow you to make the entire piece louder and bring out important parts as they move around the ensemble.
  - EQ. Generally, you'll want to roll off the lowest (mostly inaudible) frequencies. This clears up room for the bass instruments. For a good quality recording, you'll likely want to raise the highest frequencies, but for a phone microphone or something worse, you might actually have to cut them off as well. If there's a problematic noise in the recordings, you can isolate the frequencies with an EQ and maybe not fix bad recordings, but make them fit within the ensemble.
  - Reverb. There are built-in reverb plugins for every DAW, so try them out. Less is more with this, and unless you spring for a paid option, it gets very obviously fake very fast. Play around with the settings until you find something subtle but nice.
  - Mixing. Automate the compression makeup and the volume of the tracks to bring out important sections and blend background parts. Hopefully your musicians played their dynamics, but no matter what you'll want to do this a bit.
  - See if there's a good mastering plugin to throw on the full mix. I use Izotope's Ozone as a stand-alone mastering software, but for a one-off project the DAW's plugins might do the trick.
- Video Editing
    - We basically do it all over again, but this time with the video and sync it to the audio we just made.
    - I use Adobe Premiere. Other industry standards are Final Cut and DaVinci Resolve. iMovie/Windows Movie Maker or other free options could work, but they have very limited multi-video options, so you'd likely have to do a "one person on screen at a time" visual.
    - Story-board your visual aspect. Go through with your audio and decide who will be on screen and when. How do all of those parts fit on a wide-screen video. It's math and ratios. You can be more creative with your shapes or very geometrical, or again, a one-person-on-screen option is great to give folks a little time in the spotlight. Decide what it's going to look like and then go!
    - Drop all of your footage into your software and start lining it up with the audio
    - Borders on videos make much cleaner edges than trying to make micro-adjustments and line up edges. I use a simple rectangle shape on top of my footage.
    - If your computer isn't prepared for the task, you might have to pre-render your footage or even fully render it with some of your videos, consolidating it down for your computer and then continuing on top of that.
    - Basic color correction and lighting (something like curves is good)
    - Any titles and credits you want before/after the video

- Marketing
  - You can take a screenshot of the final video and photoshop the piece title on top as a basic option, just make sure the words pop. Otherwise, get more creative with it and make sure it's not too busy.

Any single one of these bullet points could be an entire page of what to do and best practices, so this should act as a reference list and get you over to the YouTube tutorials on how to actually accomplish each. I never took a class on any of this, I just did it by reading forums and watching videos, so you can too.

Finally, again, if you find yourself in too deep or want my help with either consulting or actually doing any of this for your groups, please reach out to my assistant at [contact@classicaltrombone.com](mailto:contact@classicaltrombone.com) and we can talk about the scope/budget of your project. If you use Ableton or Premiere I can even set up your sessions and get you started or troubleshoot issues you run into, just let me know!

I hope this was helpful and as always, if you want to support this kind of stuff, I'm over on Patreon at [www.patreon.com/classicaltrombone](http://www.patreon.com/classicaltrombone).

# Christopher Bill Guide to Remote Music Education

## Communication Software & Apps

### Easy One-On-One Video Chat Services

- [Google Duo](#) (Android/iPhone/Computer cross-compatible)
- Facebook Messenger (Android/iPhone/Computer cross-compatible, need Facebook)
- FaceTime (iPhone only, so not ideal)
- Zoom, Skype, & Google Hangouts work fine for one-on-one but are unnecessarily clunky if all you're looking for is a quick and easy face-to-face.

### Multi-Person Group Video Chat Services

- Skype (100-person max, iPhone/Android/Computer & phone number call-in, screen-share)
- [Zoom Meeting](#) (100-person, 40min max free-plan, iPhone/Android/Computer & phone number call-in, Recording feature saves meetings, need more, \$15/month plan is good)
- [Google Hangouts](#) (10-person max, iPhone/Android/Computer & phone number call-in)
- Facebook Messenger (50-person max, iPhone/Android/Computer, need Facebook)
- FaceTime (32-person max, iPhone-only, so not ideal)
- [Best practices, pros/cons list](#) put together by a colleague. (In depth, if you're looking for that!)

### Remote Live Lecture/Masterclasses (one person broadcasting to many)

- [Crowdcast](#) - \$29/month basic plan, has app
  - 2 hour session limit, video playback after event, option to charge for viewing
  - Integrated chat for students
  - Students can submit questions and up-vote questions already submitted
  - [Can invite students or guests to join on screen](#) for a true virtual masterclass setting
- I don't have experience with other services, but [there are alternatives](#)

### Forum-Style Communication

- [Discord](#) - Not incredibly user-friendly to set up. You can have a student who is familiar with the platform set it up, dig in and watch some [YouTube tutorials](#), or I'm happy to consult and help you get started. It's an incredible free option and great for group communication, sending out updates, and keeping students accountable all in one place. [Here's my Discord server](#) to see some ways it's used.
- [Slack](#) - The "professional cousin" of Discord. Paid plans unlock more group collaboration, document storage, etc.

- Facebook Groups - Not every student is going to have a facebook account, so not ideal, but very user friendly to set up and use. No phone notifications for announcement and messages like with Discord and Slack.

### **Other Resources**

- [Facebook Group by Elisa Janson for music educators working online](#)
- Spotify Playlists - Pretty user-friendly for creating and sharing
- YouTube Playlists - Curate a list of videos for students to watch
  - When signed into YouTube, click the little “+” to the left of “SAVE” under the video(s) you want to add, and then either create a new playlist or add to a current playlist listed. To access your current playlists, click the top left panel on the YouTube home screen. If not visible, click “Show more” and select the desired playlist. From there you can reorder videos and share that link to students.
- [Maestro Match](#) - List of professional musicians who are all of the sudden available for online lessons. Take advantage of this!
- [SoundTrap Edu](#) (by SoundCloud) - One month free trial, then \$249/year for 50 students but this should not be overlooked! This might be our best bet to having something that resembles ensemble playing.
- Noteflight Learn ([free for music educators affected by closures through June 30](#)) - Tool for creating sheet music assignments, composition assignments, recording students for assessments, and other cool remote teaching for “in your own time” style workflows.
- [SmartMusic](#) - [Free for affected schools through the end of the school year](#).
- [The Shed](#) - Great digestible lessons for theory, notation, rhythm, improvisation, etc.
- [MusicFirst](#) - Comprehensive solution for virtual music classes - [Free during the closures](#)
- [Google Classroom](#) - Comprehensive solution to managing virtual education
- [Jam of the Week](#) - Facebook community for improv and feedback from professionals.
- MET Opera - [hosting nightly free streams during closures](#)
- Berlin Philharmonic Digital Archives - [Free during the closures](#)
- [Christopher Bill Lesson Courses](#) 🗣️ (educators, ask for a free code and group discounts) Right now I have a giant three-part course on a range building, a cool course on learning intervals/triads/7th chords, and a course on learning key signatures. In the next week or two I should have my course/play-alongs for major scales up as well. Anybody interested, please reach out and I’ll give you a free access code to see if it’s something you might want for your students.

Okay! Now what to do with all of this...

## Traditional Ideas

### One-on-one lessons

- Make sure to mute yourself when your student is playing and vice versa or both use headphones to avoid audio dropping out.
- Use what you have. There's no need to run out and buy expensive hardware (although if you do, I'd recommend something like the Shure MV88 microphone that plugs straight into your phone). A little trial and error goes a long way. Try with headphones, try with muting, etc.
- If you're having internet speed problems, try turning off your video if you're not actively demonstrating something.

### Video Masterclasses

- Depending on your studio size, you can even just use one of the free options above and have one student perform while the others can send written feedback as they play. I really recommend having everyone mute by default and just unmute when they are asking a question, giving feedback, or performing.
- Using the paid services like Crowdcast really make the experience more user-friendly and have fewer technical glitches (for example distractions like program sounds when people come on or off the session in something like Skype).
- Can bring in guest artists to listen to students, perform, speak, and do Q&As. If you ask a guest to do something like this from the comfort of their own home, their prices are typically half what their live fee would be.

### Recording Assessments

- Using one of the forum-style communication sites, upload assignments for students to record on their own and upload for you to give feedback on.
- Can keep these private by having students upload them privately (either directly to these sites or through a 3rd party hosting site like Google Drive, DropBox, WeTransfer, MediaFire, etc.

### "Jam of the Week" or "Etude of the Week"

- You can have your students do the actual jam of the week on Facebook (and there are others, like [Trombone Etude of the Week](#)), or make your own using one of the forum-style services to assign students a new piece for everybody to practice and post a performance of by the end of the week. You can either do it as a one-on-one assignment that others can watch or encourage feedback between students.

### Listening Assignments

- Have students listen to a recording, watch a video (or a series of them using the playlist services above) and use the forum-style communication to have a "book club" discussion about them.

### Research Projects (as formal or informal as you want)

- Students research artists, pieces, historical events, etc.
- They can present their projects through forum-style communication
- They can present their projects through a group video-chat or crowdcast

## Non-Traditional Ideas

### Virtual Recitals

- Students take turns performing short solo pieces and etudes they've worked on, opening up the viewing to family and friends.
- Can create traditional posters and advertise them on social media, as it still would be a "live event"
- Would work best with something like Crowdcast, with the professor acting as MC. You'll want to do a dress rehearsal to make sure you've got the functionality down (inviting students to present in the software so they can broadcast their video, and how to take back control when they've finished).

### Watch Parties

- You can schedule a time to watch full-length concert videos. (There are so many great [full-length concerts on YouTube](#) and other sites like Naxos/Medici.)
- Sync it up with a watch-party site (they're free, easy to set up, most have integrated chat functions, and some have slightly annoying ads, so try them out and see what you like.)
  - [Let's Gaze](#), [SyncTube](#), [Watch2Gether](#), [myCircle.tv](#)

### Social Media "Challenges"

- Have students post small videos of themselves practicing on their social media accounts. There's a popular "100 day challenge" students are doing, but a pretty reasonable 7-day challenge would be a good start.
  - I should say there are some mixed feelings about if folks should be posting in-progress videos when they could just practice and then post a video that sounds pretty good... I'll let you have that debate for yourselves. All I know for sure is that if their friends will see it, they'll practice harder!
- I've also seen challenges where somebody will post a video of themselves playing a tricky lick, lip slur, vocal riff, etc. and then others will try to do it themselves. Depending on your students' ability level (and the disparity between them) this could be a really fun way to say- go practice and then show off this short but flashy technique.

### Virtual Choir Recording Projects

- First, check out [SoundTrap](#). It will allow your students to record on top of each other and hear the other previously recorded parts as they go. One month free trial and then \$249/year for 50 students. I highly recommend an external mic for those recording if available (I know not everyone will have one, but it makes a big difference even if it's just one that is built into headphones). They can record on the app or on the computer web-app. It's as user-friendly as a Digital Audio Workstation can be.
- If you want me to do any or all of this for your group, please reach out (email below)
  - [Here's a video](#) I was hired to arrange, record, and edit for a high school.
  - *Audio-only projects take much much less time (and money!) I'm also happy to consult and help you if you have questions and are trying to do it on your own.*
- This all can be applied to multi-track videos like the stuff I'm known for, where one student would for example play all of the parts to a quartet and layer themselves. Our rhythm and intonation tendencies are learned FAST with one recording. Apps like the acapella app make these super accessible.