



An Introductory Guide to Creating Virtual Choir Projects

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The global pandemic produced an unprecedented shift that elicited resiliency in higher education. Many colleges and universities required the use of remote education, and choral music educators needed to find new solutions to continue choral music instead of face to face instruction.

While many choral music educators have been trying different approaches to create their virtual projects, relying on a wide range of online tutorial videos to solve certain technical issues, finding a big picture, step-by-step guide for the entire creative process from start to finish has been difficult. This article aims to provide effective strategies and practical guidelines to those who wish to know what to do to be able to master the essentials of the virtual choir.

When my university decided to go fully online in mid-March 2020, as a voice professor and coordinator of the Music Department plus serving as director of a local community choir, I realized that I needed to make the best of an unusual situation and remain optimistic that something good might come out of such a difficult time in this country. I had virtually no experience in this technology, but it seemed to be a perfect time to train myself with new technology for creating virtual choir projects.

Both the creator (me) and participants (students and friends) learned much during the creation of our three virtual choir projects.¹ One of the proudest outcomes is that the final projects were posted on YouTube and broadcast on local TV channels. This attracted a much wider audience than any live choir concerts ever had at my university.

Creating a virtual choir is not an easy task.

Although each of the three virtual choir projects I created was quite different in terms of quality and digital design, I hope that by sharing what I learned from creating these projects, I can provide an introductory guide to other choral music professionals who might want to take on the challenge. I believe this article will help them, accelerate the learning process, and encourage them to attempt the very promising journey of creation from start to finish. Four steps are offered below:

1) Select a choral work and find the performers and the software for completing the project

Selecting a choral work for making virtual choir projects is different from choosing choral repertoire for live concerts. Choir directors often use demanding music selections to teach certain musical concepts. In my virtual choir projects, I took a different approach and considered popular songs that were less challenging for the choir members but were fun to sing, especially since they also needed to acquire new digital skills.

My first virtual project was *Amazing Grace—My Chains are Gone*, created in three weeks in April. The second was *Heal the World*, completed by the end of May. The third virtual project, *For the Beauty of the Earth*, took me a little longer to produce because I was experimenting with more advanced screen design and more sophisticated sound editing for an overall better choral result.



All three songs are simple choral arrangements. The lyrics of the songs offer inspiring musical expressions which help overcome the difficulties people experienced during the pandemic.

- Despite the limitations of Zoom, it is a good tool for choir meetings and group rehearsals. Choir members were able to meet on their own computers and talk to each other as well as discussing issues with the choir director.

- Before contacting the performers for the virtual project, keep in mind how many singers are needed for each line or section of the choral work. That will determine how many single and multi-singer screens need to be available for final editing.

- Making multi-singer screens was the hardest job for me in the creation process. Using iMovie, it is possible to do multi-singer screens very well if the virtual project has less than twenty singers. Otherwise, Zoom Gallery View is a less time-consuming way to synchronize audio and video and can be used for a maximum of 49 performers in a virtual choir.

- Although there is popular software for making virtual projects, iMovie is the most practical and easy-to-use tool, especially since it is free at Apple store. Adobe Premiere and DaVinci Resolve are good software packages for making more advanced virtual projects; however, both are more difficult to operate, and Adobe Premiere is not free. Take note that there are two versions of iMovie—My Movie and App Preview. The former is what I recommend for making virtual projects on computers. The latter has fewer features and is more practical for basic video projects such as those created on cell phones.

- The two versions should not be combined while making a virtual project because once a project is started in App Preview, trying to combine portions of a video created in My Movie with portions created in App Preview will destroy the ongoing work, thus, the editor will need to restart the entire project. My Movie also has functions for pitch, time, image adjustment, and realistic reverb, among others, and is easy to use for video editing.

2) *Create a singing plan containing the requirements for video recording. Provide a guide track (accompaniment track) for making individual videos. Send both to the performers.*

Many tasks that choir directors carry out in the classroom can have an online equivalent. It is important to understand that neither teaching skill nor learning approaches change. Delivery methods do. The strategy below explains how these tasks can be carried out in an online environment when choir directors begin planning a virtual choir project.

- Many choir directors rely on an SATB arrangement of a choral composition to develop a singing plan for their choirs. When starting a virtual choir project, the task of creating a singing plan needs to be considered along with the screen design of the project since the latter determines what the final project will look like and sound like on a big screen (See Table 1 on pages 17 and 18).

- Nearly every possible scenario for preparing a normal choral performance (learning the music, ensemble rehearsals, and performance schedules) will be encountered. The virtual choir creator also needs to prepare an audio track and video samples for those performers who do not know how to make their own videos. It is also important to come up with a replacement plan in case there are performers who cannot commit to their parts and meet the deadlines for video submissions.

- In a virtual project, if one video clip is missing, the entire project cannot be put together. On top of it all, the creator needs to look for ways to ensure that both he/she and the performers not only cope with but thrive under the new circumstances—even when everything happens remotely.

- While making a guide track for the performers to follow and make their own videos, it is important to consider a few key items.

- You can find copyright-free music tracks on YouTube if you are working on a tight budget. Download a selected video link and convert it to an MP3 audio file that can be used as an accompaniment track for the virtual project. Make sure you read the notes on the video link before downloading. Sometimes it is necessary to contact the provider for permission to use it. The YouTube Audio Library is an expansive and unique resource for



Table 1

Singing Plan: Heal the World (virtual choir)—voices of Dillard University musicians and global friends

YouTube link for learning the song: <https://youtu.be/fyhWoDpqnkQ>

Choral score download: https://229show.files.wordpress.com/2015/04/heal_the_world-2.pdf

Accompaniment track: short audio tracks with assigned solo lines and ensemble sections will be sent to individual performers.

Requirements for making video recordings:

- Two devices are needed. Play the accompaniment track on a computer and listen to it through headphones. Follow the track to sing and use a cellphone to make the video recordings (a video sample is available upon request) Make vertical-screen videos for ensemble sections and horizontal-screen videos for solo lines. Wear a casual outfit and light make-up. Record videos in a quiet room and under day-time light. Turn the sound volume to the highest possible level on the cellphone.
 - Place the cellphone camera slightly above your eyes and keep the camera-lens about 16-inch away from your face. Look at the camera, not yourself on the screen of the cellphone.
 - Leave 3 seconds of silence at the beginning and the ending of your recordings for final video editing.
 - Submit an MP4 or MOV. File via Google Drive or Drop-box to wzhang@dillard.edu
 - Zoom meeting is available for questions. Individual videos are due in two weeks.
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Verse I:

Singer 1:	There’s a place in your heart, and I know that it is love
Singer 2:	And this place could be much brighter than tomorrow
Singer 3:	And if you really try, you’ll find there’s no need to cry
Singer 4:	In this place, you’ll feel there’s no hurt and sorrow
Singer 5:	There are ways to get there, if you care enough for the living
Singer 6:	Make a little space, make a better place
All six above:	Heal the world, make it a better place for you and me and entire human race; there are people dying, if you care enough for the living, make a better place for you and for me.

Verse II:

Singer 7 (Chinese):	这世界, 很美丽, 是个温柔的诗篇
Singer 8	梦与海, 只期待每一个明天
Singer 9 (German):	Bist du dazu bereit fliehen Augst und Grauen weit
Singer 10 (Italian):	Paura o morte, filisce esiste e comincia a vivere
Singer 11 (French):	Tu sais tout peut borger, il suffit de partager
Singer 12	Plus d’humanite,d’amour d’amitie
Six Male Singers	Heal the world, make it a better place for you and me and entire human race. There are people dying if you care enough for the living, make a better place for you and for me.

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Verse III:	Singer 13 (Vietnamese):	vàđiêu ước ta muôn chung tay nguy ện câu s ẽmang nụ cười trên môi
	Singer 14 (English):	And the world we once believed in will shine again with grace
	Singer 15 (Spanish):	Entonces por qué seguimos, hiriendo nuestra tierra
	Singer 16 (Spanish):	Aunque esto es sencillo este mundo existe, por el brillo de Dios
	Singer 17 (Japanese):	僕らは飛べる永遠の命をみんな みんな繋がっているんだ
	Singer 18: (Chinese)	请放心, 不必畏惧, 我们在一起哭泣
	Singer 19:	看世界, 放眼明天, 我们化剑为犁
	Singer 20:	We can really get there, if you care enough for the living
	Singer 21:	Make a little space, make a better place
	12 Selected Singers:	Heal the world, make it a better place for you and me and entire human race; there are people dying, if you care enough for the living, make a better place for you and for me.
	Singer 22:	Heal the world, make it a better place for you and me and entire human race
	Singer 23:	There are people dying, if you care enough for the living, make a better place for you and for me.
	Singer 12:	There are people dying, if you care enough for the living, make a better place for you and for me.
	Child 1 (English):	For you and for me
	Child 2 (Korean):	너와 나를 위해
	Child 3 (French):	Pour toi et pour moi
	Child 4 (Chinese):	为了你也为了我

checking the copyright status of music posts on YouTube.

- When choosing an accompaniment track for virtual choir projects, pay close attention. Be sure the music track has instruments playing the melody consistently, not just the supporting rhythms and underlying chords. This type of accompaniment will help the performers tremendously when they follow the track and create their video recordings.
- Many choir members will not know how to find their lines or parts in the accompaniment track. In this case, the virtual choir creator may need to alter the full-length tracks into short segments that only play the music of certain singers' parts. Send the altered tracks to the individuals who need them.

3) *Provide guidelines for making video recordings. Include deadlines for submissions.*

Good quality video production is obviously important, but it is also not intuitive for the performers, especially those who may not have the technical skills or the know-how for more than a basic online video. Choir members learning to make good quality videos will not happen overnight. Many singers are accustomed to adhering to strict guidelines when learning new skills.

It is wise for the virtual choir creator to make an audio or video clip with clear instructions, ensuring that every performer captures his/her best video recording. Such an instructional clip not only can boost students' engagement and guide them effectively in making video recordings. It also allows the creator to edit a copy of ensemble performance much more easily. The project creator should include the following information in the instructional clip for the singers.



- Practice your lines or ensemble sections with the accompaniment track. Get yourself ready for a video recording (what you will wear).
- Two devices are needed for making video recordings. Play the accompaniment track on a computer and listen to it through headphones or earbuds. Follow the track as you sing and use a cellphone to make the video recording (a video sample is available upon request).
- Make vertical screen videos for ensemble sections and horizontal screen videos for solos.
- Record your videos in a quiet room and under daytime light.
- Turn the sound volume to the highest level on the cellphone when you record.
- Place the cellphone camera slightly above your eyes and keep the camera lens about 16 inches away from your face. Look at the camera, not yourself, on the screen of the cellphone.
- Allow three seconds of silence at the beginning and the ending of your video for final editing. Be yourself and have fun!
- Submit an MP4 or MOV file via Google drive to the email address of the editor.
- A zoom meeting will be available for questions. Individual videos will be due in two weeks.

4) *Edit individual videos. Create a final version and publish it on social media.*

The most challenging part of virtual choir creation is overlaying all collected videos and editing them so that they become the final version of the project. Virtual production can be stressful for a novice and requires significant computer understanding, but as with any new skill, once you learn how to do it, it is much easier a second time. New creators of virtual projects may want to take the following ideas into consideration:

- Editing multiple videos can take up a lot of memory stor-

age on a computer hard drive. Although most computers should be capable of running video editing, I recommend using a flash disc to store all collected videos during the editing process.

- While patience and practice may be sufficient for first-time virtual choir creators, some individuals may find that they need input from someone who is more video-savvy and with greater expertise to work through the challenge of final editing—a professional video editor or someone in the creator’s personal circle, e.g., musicians, friends, theatrical engineers, etc.
- Be proud of the results! Once the final version of the project is completed, you can post it on social media, and it can attract a wide audience in a very short time. After viewers find the link, there are many ways to encourage them to subscribe and contribute to your virtual projects.

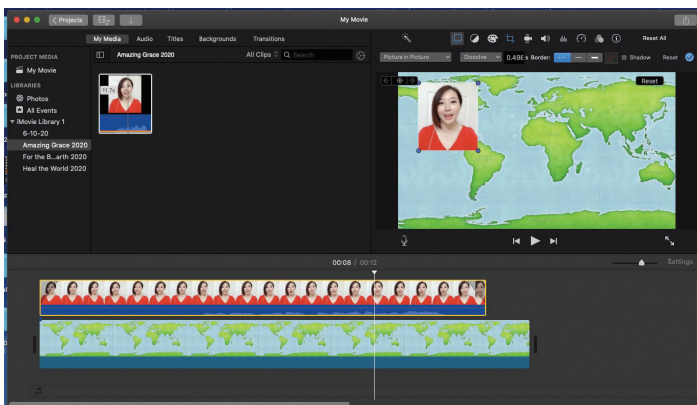
Step-by-Step Guide using Heal the World (virtual choir) created on My Movie as an illustration¹²

- Develop a singing plan with assigned singers for each solo line and ensemble section.
- Match each line and section with the screen design of the virtual project for working on My Movie (not App Preview) of the iMovie software.
- Use QuickTime to trim all the individual videos (23 singers’ video clips) and save them in a folder on the desktop for later import into My Movie one-by-one.
- Set up “New event” on My Movie: Heal the World. All import videos will be in this event.


Step 1: Make Multi-Singer Screens

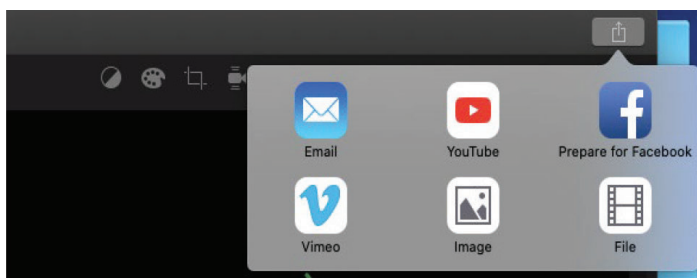
- Start with making multi-singer screens (place videos into the grid) which is the hardest job during the entire creation process. According to the singing plan I created, there are three multi-singer screens (ensemble sections) in the project. The first one is “All six above.” Here are some guidelines for making the Multi-singer Screen I on My Movie:

1. Click on “Background” on My Movie to choose an image (“Green global map” is my choice) for the video background and drag it onto the movie track (not the music track) to become a background track for Multi-singer Screen I; drag the track as long as the section lasts, which is about 24 seconds.
2. Click “Fill” on the My Movie and then “Import Media” to take the Singer 1 video from the desktop and drop it onto the background track (Green global); fix the frame of Singer 1 image before dropping the video on the background track.
3. Click “Cutaway” and then “Picture in picture” to position Singer 1 on the big screen—done with the video clip of “Singer 1 on the big screen” (see Example 1):



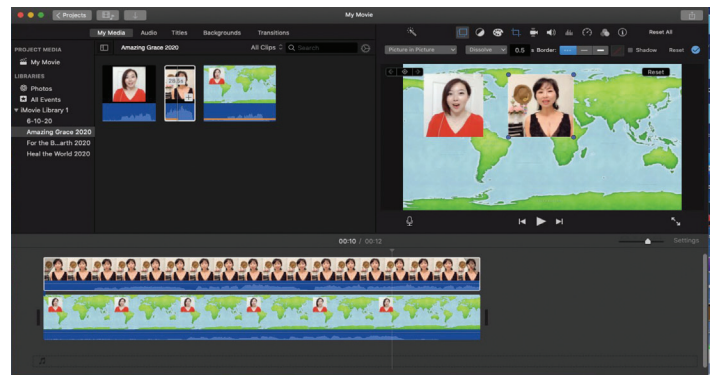
Example 1: Singer 1 on the big screen

4. Click  at the right-top corner and choose “File” to export “Singer 1 on the big screen” video clip to the desktop and save it for the final editing (see Example 2) Note: do this “file-export” every time a video clip is created on My Movie.



Example 2: Choose “File” to export

5. Click “Import Media” to take “Singer 1 on big screen” video clip back into My Movie and drop it onto the movie track to become a background track for Singer 2 video; fix the frame of Singer 2 image to match the size of Singer 1 image and drop the Singer 2 video onto the track. “Singer 1 on the big screen” is sitting on the movie track now.
6. Click “Cutaway” and then “Picture in picture” to position Singer 2 on the big screen—done with the video clip of “Singer 1 & 2 on the big screen.”
7. Very important here: play the movie track to hear if the two singers are singing together; the adjustment can be made by matching the voice waves of the two video clips.
8. Make a “file-export” to save “Singer 1 & 2 on the big screen” on the desktop (see Example 3):



Example 3: Matching the voice waves of two video clips

9. Repeat the same process with Singers 3-6 until all six singers are singing together the big screen. Match the voice waves between singers and adjust each video clip’s volume to about 300% for having well-balanced ensemble singing. Do all these adjustments before making “file-export” to the desktop— and then done with the video clip of Multi-singer Screen I (see Example 4 on page ??):
- Move on to the next multi-singer screen. According to the singing plan, it is the section of “Six Male Singers” in Verse II. The creation process of Multi-singer Screen II is the same as making Multi-singer Screen I video with six females.



Example 4: Six Females in Multi-singer Screen I

- Multi-singer Screen III is the section of “12 Selected Singers” in Verse III. As adding more singers to a multi-singer frame, the same process repeats every time, including matching the voice waves and adjusting the sound volume of all the video clips. There are 12 singers on Multi-singer Screen III, so the same process is repeated 12 times, which is what makes the creation process “immensely time consuming.” (see Example 5):



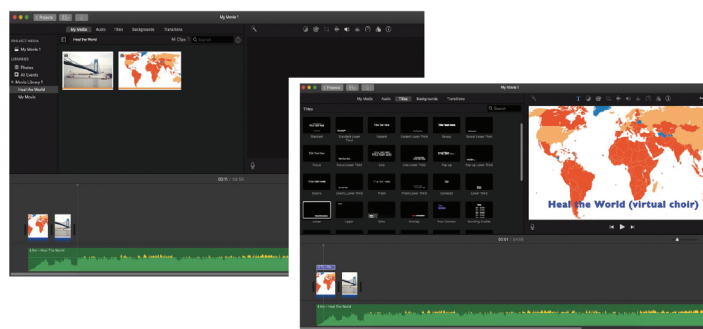
Example 5: Twelve singers in Multi-singer Screen III

Step 2: Overlay all the video clips

- Once all three multi-singer screens are completed and saved on the desktop, final video editing can begin: overlaying all the video clips on the movie track and matching each one with the accompaniment track.
- Click “Import Media” to take the MP3 file of accompaniment music from the desktop and drop it on the music track (not the movie track) on My Movie—the green track.
- Find eight pictures from Google images to fill in the opening of the song (measure 1-2), the interlude between Verse

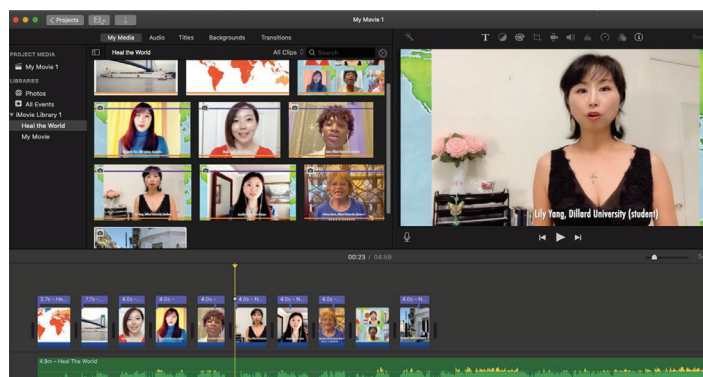
I & II (measure 23), and the postlude at the end of the song. Note: If you wish to add still photos to the video project, you can use your own photos, photos that your participants share with the project, or even images that are downloadable from the internet (of course, obeying the copyright and photo crediting rules). The photos can be added anywhere, but for a virtual choir, it is optimal to use the photos in spots where there are musical interludes rather than voices. Of course, placement will vary depending on the song choice you attempt.

- Click “Import Media” to take Pictures 1 and 2 from the desktop; drop them on the movie track above the music track and click “Titles” to text the words on each picture—the purple box above the picture. The two pictures fill in the opening music of the song (see Example 6):



Example 6: Import two pictures and title them

- Click “Import Media” to take Singers 1-6 solo video clips, Multi-singer Screen I video clip (Six Female Singers), and Picture 3 from the desktop and drop them on the music track one by one after Picture 1 and 2; match each singer’s singing with the accompaniment track and click “Titles” to add titles to each solo clip—done with Verse I of the song (see Example 7):



Example 7: Import Singers 1-6 solo video clips and title them



- Continue the same process to overlay Singers 7-12 solo video clips and Multi-singer Screen II video clip (Six Male Singers) on the music track after Picture 3, which is for interlude (see Example 8):



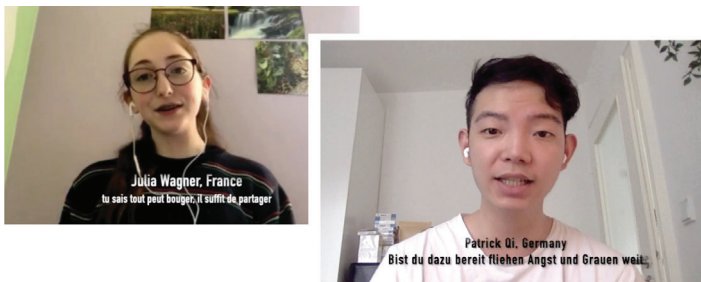
Example 8: Overlay Singers 7-12 solo video clips and Multi-singer Screen II video

- accompaniment track and click “Titles” to add titles to each solo clip; also adding a picture of Dillard University for typing in the creator’s information—done with the entire song (see Example 10):



Example 10: Overlay Singers 22, 23, 12, Child 1, 2, 3, 4 solo video clips and Pictures 4-8

- The new challenge is to type foreign language words into each solo video clip, which can be done by “cut and paste” from the singing plan (Word file) on the desktop to My Movie “Titles”—done with Verse II of the song (see Example 9)




Example 9: Type foreign language words into each solo video clip

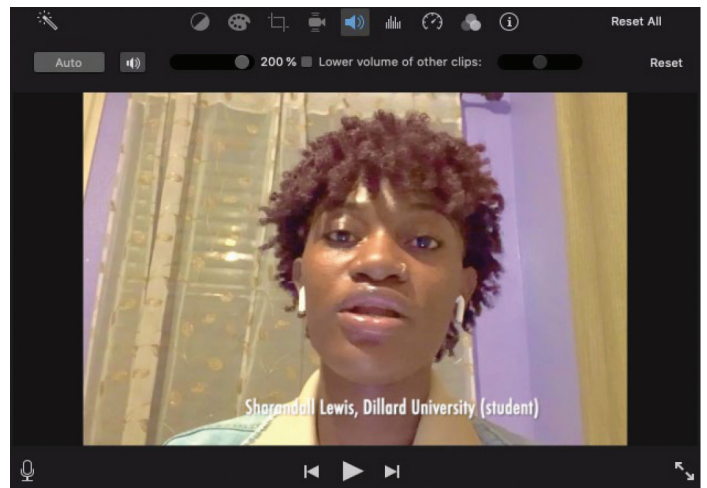
- Continue the same process to overlay Singers 13-21 solo video clips and Multi-singer Screen III (12 Selected Singers) on the music track right after Multi-singer Screen II video clip. The titles of these nine solo clips can be done by “cut and paste” from the Singing Plan (Word file) on the desktop to My Movie “Titles”—done with Verse III of the song.

- Continue the same process to overlay Singers 22, 23, 12, Child 1, 2, 3, 4 solo video clips and Pictures 4-8, which are for the postlude on the music track right after Multi-singer Screen III video clip. Match each singer’s singing with the


Step 3: Final Editing

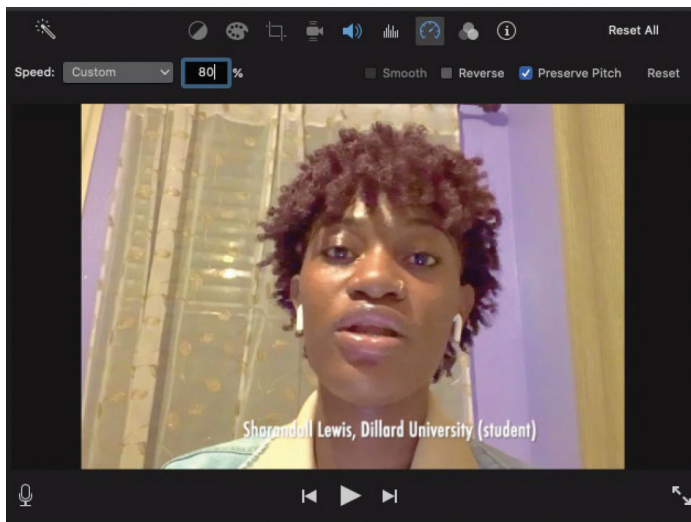
This is the last part of creation process: mix, Example 12: Adjust the video sound that is louder than the next one sync, and edit all the video clips one by one until desirable results can be reached.

- If the video clip sounds louder than the next one, click the clip on the movie track and then click  to adjust its volume percentage down to 200% or lower (see Example 11). Remember each clip volume was adjusted to about 300% before making “file-export” to the desktop.




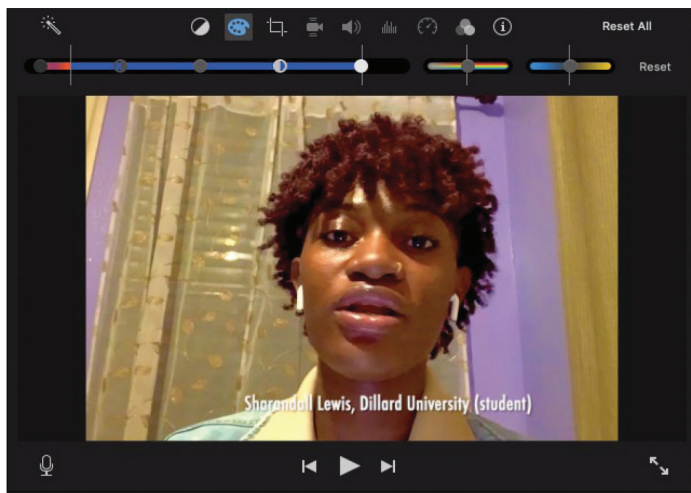
Example 11: Adjust the video sound that is louder than the next one

- If the video clip sounds faster than the accompaniment music, click  to choose “Custom” and adjust the percentage down to 80% or lower; make sure the box of “Preserve pitch” is checked (see Example 12):




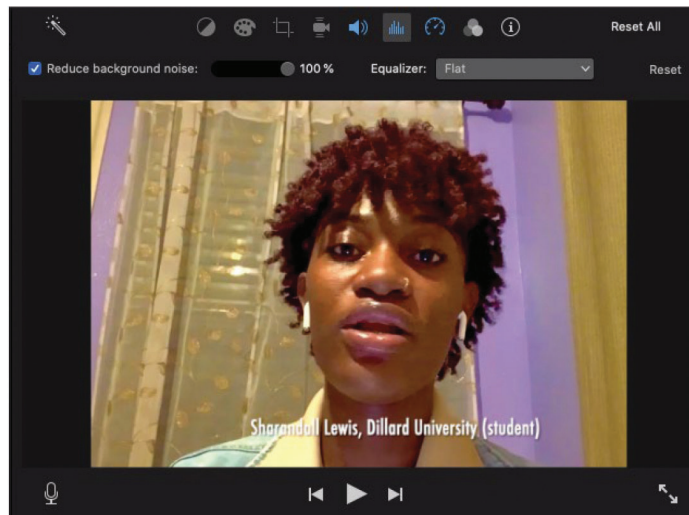
Example 12: Adjust the video tempo that is faster than the accompaniment track

- If the video clip looks too dark, click  and make the adjustment (see Example 13).




Example 13: Adjust the video clip that looks too dark

- If the video clip still has some background noise, click  and adjust the percentage of “Reduce background noise” to 100%. (see Example 14):




Example 14: Adjust the video clip that has background noise

- To make the 12-singer ensemble sound more mixed, click  and choose “medium room” or “large room” for the section. (see Example 15):



Example 15: Make the 12-singer ensemble sound more mixed

- To make the 12-singer ensemble look in a color tone, click  and choose a preference. (see Example 16 on page 24):
- Once all the adjustments are satisfied, check the spelling of the titles in each “purple box” and play the entire movie track a couple of times to get the most desirable sound quality.



- Then, do the last “file-export” and save the Final version to the desktop, which can be upload to social media any-time. Heal the World (virtual choir) is born!

Educational Value of Virtual Choir

Before the pandemic, most choral music educators had no opinion on the educational values of virtual choir. Because of the need for social distancing, this ambitious novelty in the music world became a model for choir music educators to do their work online; and in our own ways, we all have become experts, or at least, experts of our own attempts, in making choral music in the virtual environment. Virtual choir, as a method of online choral music education as well as the virtual projects that result, now has proven to be an innovation and accomplishment for extending the reach of choral projects that pre-pandemic had small limited audiences.

Choral music education must go on while there continues to be so much uncertainty as the months of social distancing drag on. While continuing to see more virtual choir projects coming out, choral music educators may consider updating their curricula for teaching and learning online more effectively.

1) *Virtual choir is a great means to develop students' independence, practice habits, and responsibility*

Once a virtual choir project is planned, the assigned performers/students must learn their parts and practice with a guide track or accompaniment track, and then make good-

quality videos for the project. By reviewing the singing plan, they understand that each individual part is connected with others and none of them can be missing for the final version of the project, which also means that each performer is treated simultaneously as a soloist and as an ensemble member. To commit to their assignments, performers/students need to devote a great deal of time and energy to becoming fairly comfortable with their parts before making individual videos.

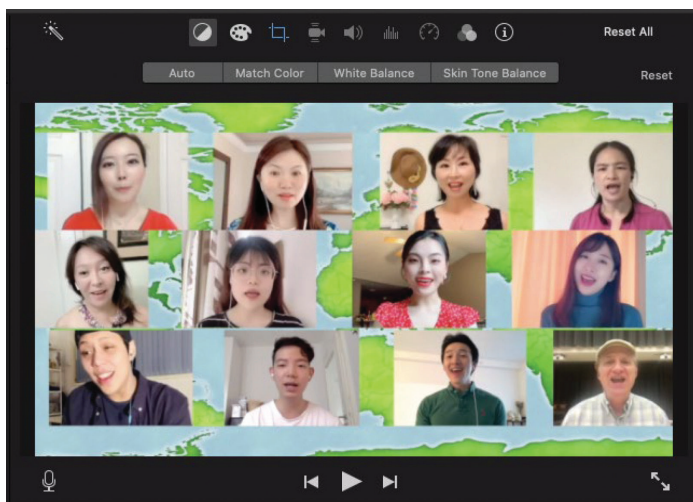
While learning digital skills for making video recordings and submitting them via certain channels, most students likely will need numerous attempts to meet the requirements and deadlines. All of these activities require independence, practice, and responsibility. One of the students in my virtual choir project wrote to me: “I failed every possible way on my cellphone for sending out my videos after I finished the recordings, and I was almost giving up. But, I felt so guilty when I thought that the final project won’t be put together because my lines were missing. So I reached out to ask for help, and I got it!”³ Singing in a virtual choir can help students feel more socially connected and realize themselves as equals in the group.⁴

2) *“No Grading” policy encourages students' unquestionable engagement*

Making virtual choir projects is new to many choir directors and performers/students. Without ensemble rehearsals and live performances, there is still plenty for both to learn and practice. Therefore, normal grading policies for choral music education should not be applied, which can encourage students’ engagement in the project while having a fun time with what they are accomplishing during the process. As long as everyone completes their assignments on time, they will succeed. When individual videos display in the final version of the project, all the virtual choir members can see that no one is in the back row no matter what, and everyone has an equal presence on the big screen. To reach more educational values, the creator of virtual choir projects may post some information about virtual singing and digital tips for making video clips for students to read, and then try some quizzes with students. It can motivate students’ participation during the creation process.⁵

3) *Virtual choir offers more solo opportunities to improve students' self-esteem and singing techniques*

By their nature, well-constructed virtual choir projects



Example 16: Make the 12-singer ensemble look in a color tone



have more solo lines than live choir performances, which is a side benefit for choir members who otherwise might not have a turn in the limelight. Remote choral singing is much like a solo performance because the individual performer rehearses alone, and the entire ensemble cannot spend much, if any, time rehearsing as a group. Plus, the nature of digital screen design in assembling all the individual performances into a virtual choir consists of very few options for making multi-singer videos.

Assuming most of the performers/students have been taught basic singing and sight-reading methods to retain solo melodies, when spending time working on the video recordings at home, they gain more chances to practice their solo lines, focus on improving their vocal quality and screen presence, record and re-record their individual video until it is impeccable. Of course, all of these efforts become skills that can be transferred right into their singing for ensemble sections. With the feeling of being in a comfortable place (home), students are able to trust themselves and take responsibility for making their own progress.

When I was making my third virtual choir project, I sent an editing draft of each section to the performers/students for a pre-review before putting all the sections together. I received a message from one singer: "After watching myself on the screen, I feel I can sing much nicer if you allow me to redo my video in a couple of days. I will have a much better one for you then."⁶ Virtual choir can be a huge confidence builder to help students improve their self-esteem and singing techniques along with their musicality.⁷

4) More opportunities to enhance students' self-reflection while participating in a virtual choir project

Self-reflection by the performers/students begins with making their individual videos at home, and continues to happen until they are satisfied with their self-made videos and submit them successfully before deadlines. Instead of a voice merely being lost in the live choir performance, each performer can view their specific contribution played in the final version and feel a personal achievement. Once the final project is completed and posted on social media, most of the performers/students will look at it more intently than watching any live choir performance because each of them has a box in a grid on the big screen. They can learn from each other's screen performances and share their virtual experiences within the group.

One of the students who participated in all three virtual

choir projects wrote in the group chat: "I am so glad that I made my parts in all three virtual choirs. I won't forget how I persevered to the end while dealing with all the challenges and frustrations. I showed our YouTube links to my family and friends, they were so proud that I did a better job each time with you all. I am so ready for our next virtual choir!"⁸ Singing in a virtual choir indeed promotes well-being, tangible experiences, and specific effects that are good for students' personal and educational development.⁹

Discussion

Understandably, virtual choir is not a replacement for a live choir performance, and the musical quality cannot be the same due to the lack of in-person ensemble rehearsals, especially when viewing it through the lens of traditional choral professionals. One major obstacle in a virtual choir project is the sound quality, and in this aspect, we are somewhat limited by the technology available to us. None of the favorite software or app that could be used for online meetings are readily adaptable for making virtual music projects.

While there are positive advantages to virtual choir as a possible way to make choral music during social distancing, it is also not necessary that all choral professionals should create virtual choir projects, especially those who have strong feelings toward the traditional format of choral music-making. Many choral music educators may also feel pressure from their communities or administrators to create their own virtual choir projects. If they do not personally desire to ever lead a virtual choir, or virtual choir is not something they want to be involved with, they still can support and appreciate others who have produced wonderful virtual projects, and find merit in different experiences of making choral music in the time of social distancing.

Choral music educators have to be very creative with the opportunities and constraints of the virtual environment and how to best share their music-making with students through remote teaching. Despite the challenges of making virtual projects and the lack of training available for choral music educators to organize virtual performances, there is light at the end of the tunnel if someone decides to try.

With the help of online resources like Do-it-yourself,¹⁰ and Do-it-with-others,¹¹ choir music educators should be able to keep making music when being apart from choir members/students and concert audience. Choral music educators who have succeeded with the online choral music making within



their virtual projects will remember lockdown as a time they learned to embrace digital technology in profoundly meaningful ways for music education. **CT**

NOTES

- ¹For the Beauty of the Earth (virtual choir): <https://youtu.be/1luajTURzxi> Heal the World (virtual choir): <https://youtu.be/cblYFNv3aw4> Amazing Grace (virtual choir): <https://youtu.be/R8YWYOOUxno> (accessed 06/15/2020)
- ²I am using my virtual project, Heal the World, as an example to walk readers through the creation process. The instructions are really my steps, not as a way to re-create your own projects, but are a helpful guideline to understand the functions of the software and the entire procedure of the project.
- ³A voice student at Dillard University who sang in one virtual choir created by the author.
- ⁴<http://cobbcast.cobbk12.org/?p=32512> (accessed 07/02/2020)
- ⁵<https://www.elonnewsnetwork.com/article/2020/06/elon-student-creates-virtual-choir-during-pandemic> (accessed 07/02/2020)
- ⁶A Dillard University alumna sung in two virtual choir projects created by the author (07/10/2020)
- ⁷<https://ericwhitacre.com/news/press-release-singing-in-a-virtual-choir-benefits-your-health-and-wellbeing> (accessed 07/05/2020)
- ⁸A voice student at Dillard University sung in all three virtual choirs created by the author (07/10/2020)
- ⁹<https://www.frontiersin.org/articles/10.3389/fpsyg.2019.00778/full> (accessed 07/09/2020)
- ¹⁰<https://midnightmusic.com.au/2020/03/dear-music-teachers-please-stop-asking-how-to-create-a-virtualchoir-video/> (Accessed 07/12/2020)
- ¹¹<https://www.purdue.edu/newsroom/releases/2020/Q2/after-the-pandemic-the-future-of-musiceducation-and-performances.html> (accessed 07/12/2020)