

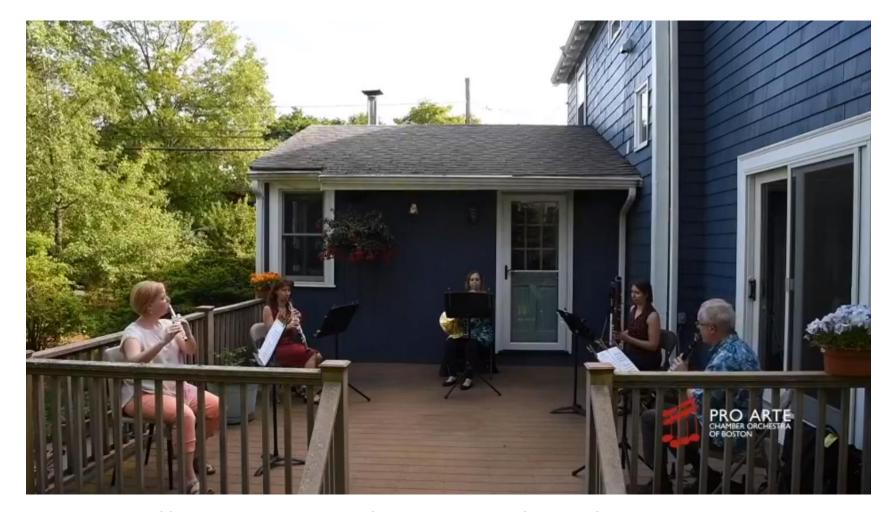
Technology for playing together remotely

by Bryce Denney presented to the Concord Band June 2020

Topics

- Social distancing very hard to rehearse or perform
- Play together in person
- Video conferencing
- Music collaboration apps
- Virtual ensembles

Play in person, outdoors - small group



Woodwind quintet live concert

Recorded with 3 cameras

Pro Arte Chamber Orchestra of Boston

https://www.facebook.com/ProArteBoston/videos/1128207380896505

Play in person, outdoors - large group



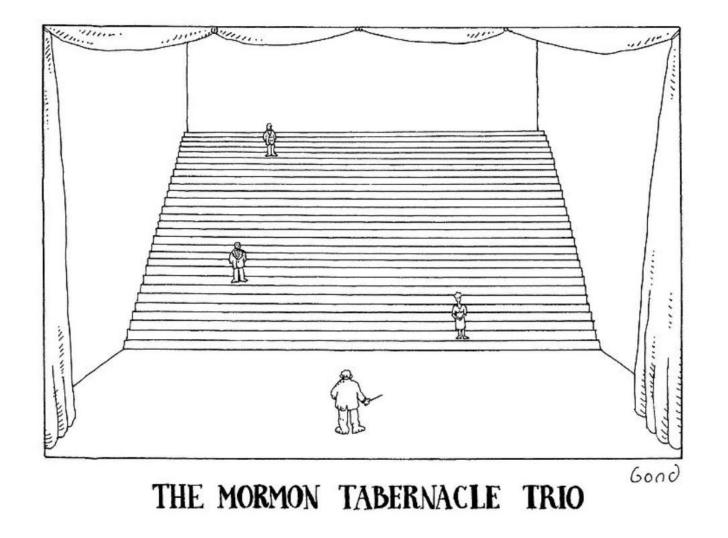
Imagine a band playing outside, spaced out

Learn from maching bands

Conductor needs amplification. Maybe a big shiny baton?

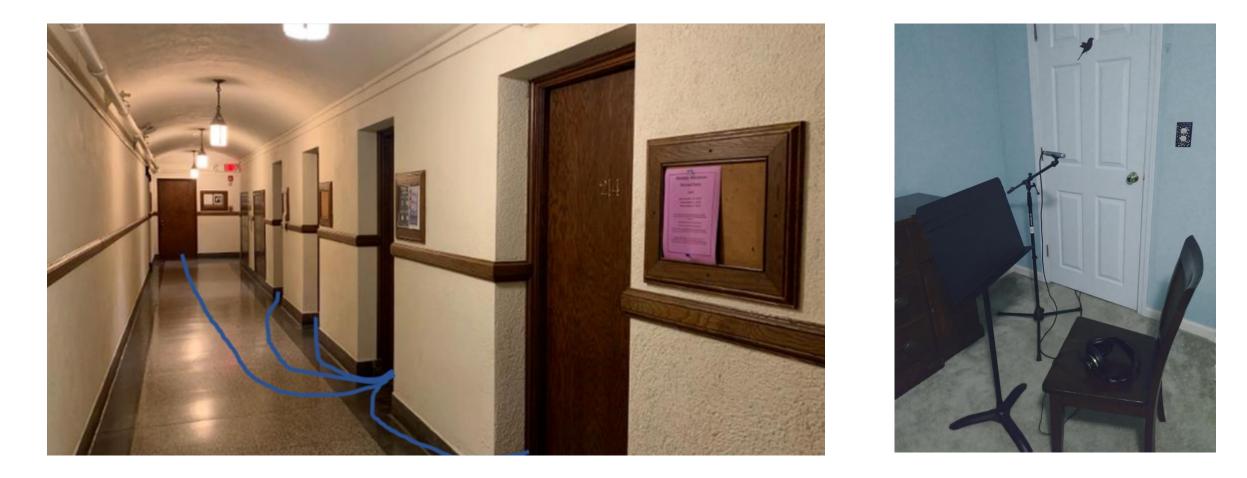
graduation ceremony in Mandan, ND - kfyrtv.com

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Play in person, indoors
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from The New Yorker March 7, 1988

In different rooms, with mic & headphones



see our "<u>Driveway Choir</u>" project - singers in cars with headsets

In plastic bubbles?



2m 0.8mm PVC Inflatable Wate... **\$231.74** DHgate online...

Yes, really.



Jun 12, 2020 2:4

Flaming Lips Perform Inside Plastic Bubbles on 'Late Show With Stephen Colbert' (Watch)

Rv Varietv Staff ∨

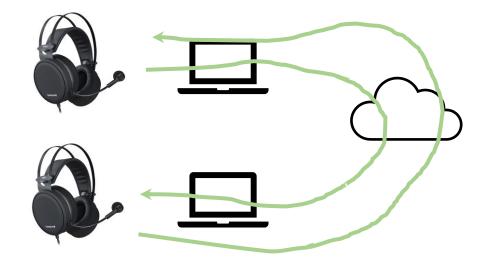
HOME > MUSIC > NEWS



Video conferencing apps

Video conferencing

- Zoom, Skype, Facetime
- Too much latency to play together
- These things work well
 - Planning, staying connected
 - Private lessons
 - One person plays at a time
 - One person plays, everyone else plays muted
 - Host shares a recording, everyone plays muted
- Zoom: Be sure to turn on "Original Sound" for music. Host must enable.
- You can never hear the whole group!



Band could play along with recording

- Send out link to music
- Players print their parts
- Schedule a Zoom session
- Host mutes everyone
- Host shares a video, everyone plays along

Band could play along with recording

X

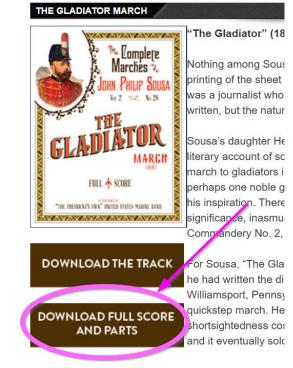
Google

Q sousa march download music

US Marine

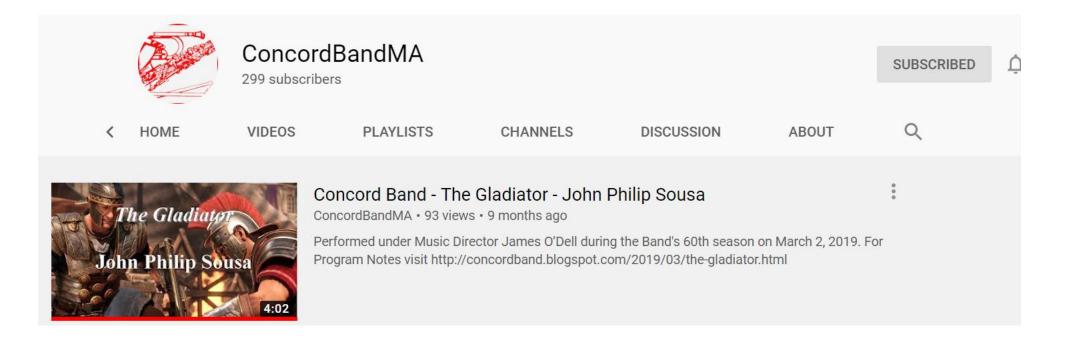
band

website





Band could play along with recording



https://www.youtube.com/watch?v=lwxbVYL8ASg

Music collaboration apps

Online jamming apps

- Free, designed for live music
- Much better latency
- Only small groups (2-6)
- Need fast computer, fast internet, audio interface
- Small group with tech-savvy members Try it and let us know

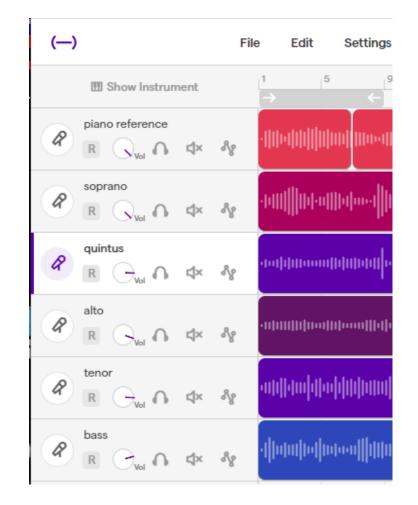




SoundTrap

- Multi-track audio editor in a website
 - It works well on laptop. Poorly on cell phone.
- Different people can record different tracks, share
- Could help a group to do an audio-only project
- If you want to try this
 - Watch a SoundTrap video
 - Make a free account and try it
 - I'd be glad to help





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"Ok guys, everybody add your parts!"

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Save it as MP3 or WAV

Virtual ensembles





Plan a virtual ensemble project



- 1. Choose players and music
- 2. Send out a guide track
- 3. Everyone records themselves and submits a video
- 4. (optional) Audio editing
- 5. Video editing

Virtual ensembles: Players

Good fit for

- Confident players
- Who <u>really</u> want to play together, despite barriers
- With solid rhythm and intonation
- Who have a smartphone or video camera
- Or if players live far away

Not for everyone though

• Not social. Spend more time on tech than music.

Virtual ensembles: Music

Choosing music - these things make it simpler

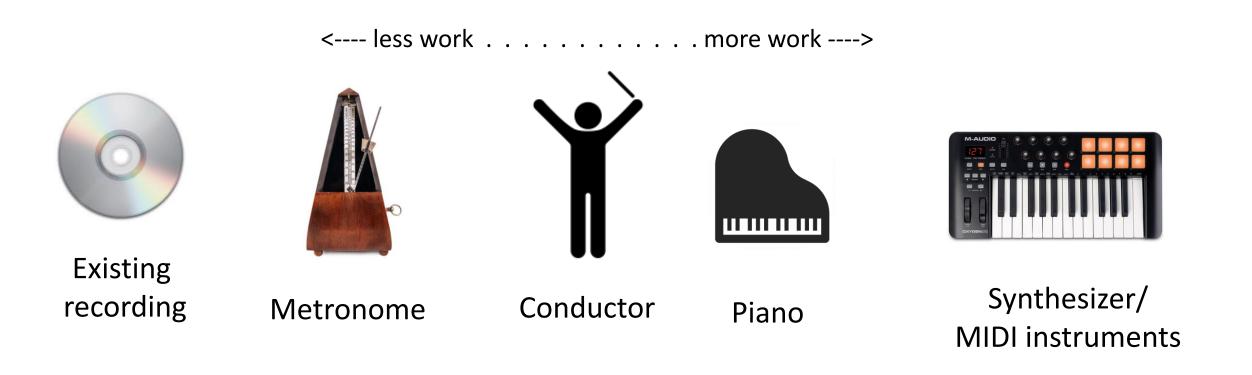
- Fewer participants
- Shorter piece start with 2-4 minutes
- Steady tempo. Few fermatas, ritards
- Not TOO many measures of rests
- You've already played it together
- (Audio only is simpler)

Virtual ensembles: Guide track

- "Everyone send me a video of you playing our part"
 - What could go wrong?
- "Send a video of you playing along with THIS"
 - LOUD and CLEAR
 - Short percussive sounds are easier to follow
 - Doesn't need to sound "good"
 - Audio matters more than video
- Hints
 - Start with: "Please clap on the count of 4. 1,2,3,4." Helps with editing later.
 - Add voice counting beats to clarify entrances, ritards, cutoffs.

Example guide track - <u>LINK</u>

Guide track choices



Hint: You can slow it down.

Audio track is usually more helpful than video.

Choose sounds with clear attack and stable pitch.

Virtual ensemble recording

- Everyone takes a video of themselves playing their part
 - while listening to guide track in headphones
- Google for "virtual choir recording instructions" for many examples. <u>Example1</u> <u>Example2</u>
- Example setup:
 - Laptop plays guide track to earbuds
 - Cell phone on music stand, taking a video
- Create public Google Drive folder and ask people to add their videos
 - many alternatives use what you're familiar with

Video editing

- I'll demonstrate with WeVideo, a simple video editor website
- Demo
 - Take 3 clips, synchronize them, shrink and arrange them
 - Trim off the "clap"
 - Adjust the balance, add dynamics back in
 - Players can fade out when not playing
 - Change layout, e.g. make soloist full screen, rearrange them
 - Add title in front (be sure to move clips together)
- If separate audio editing, add it and mute the others

Video editor screen shot - Cyberlink PowerDirector



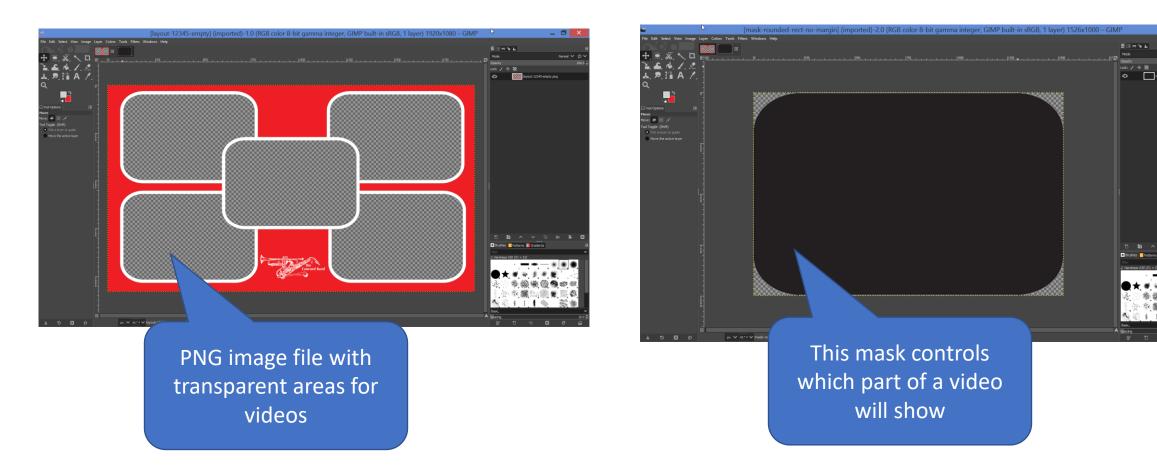
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Getting fancy: Backgrounds, masks

Made these images in GIMP (free), with some help from Adobe Illustrator (commercial).

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Audacity

Audio editing

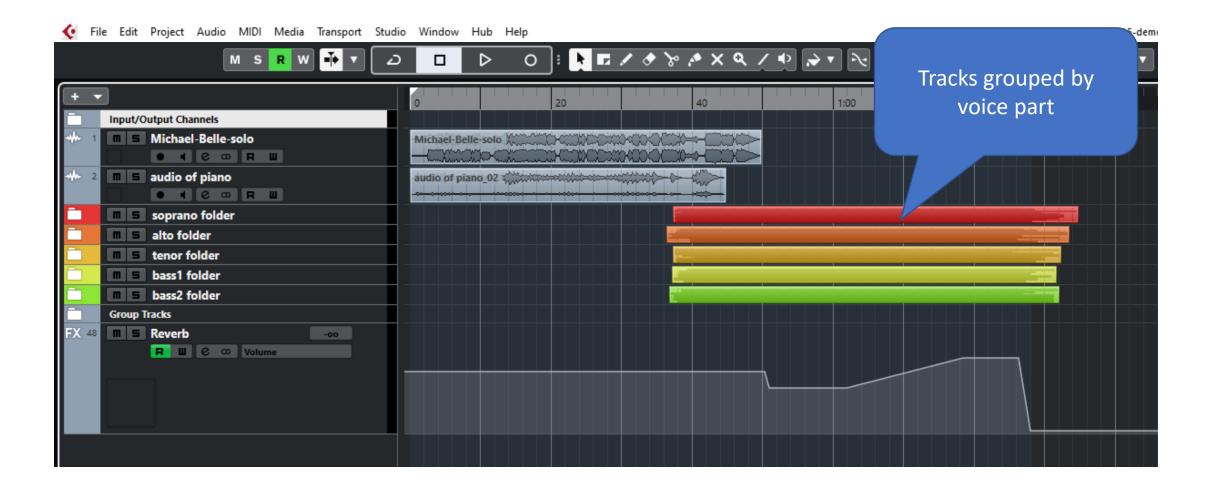
- Optional
- Simpler and free: Audacity
- More complex and \$100: Cubase
- Audacity demo:
 - Line up Bryce, Joel, Ben in HailPoetry\extracted-audio-apr13\bass1
 - Amplify
 - Trim off the "clap"
 - File > Export audio. Save as WAV
- Good enough for simple project



Audio editing - Cubase

- Cubase demo: Show Cubase file for "Hail Poetry" virtual choir
 - Sopranos all organized into a folder, one volume knob to adjust whole section
 - Listen to one, whole section, whole group
 - Some people's videos have noise. EQ(equalization) can often reduce it.
 - Someone was late on a cutoff. Fade them out gently.
 - Adjust volume at specific times

Cubase tour: "Hail Poetry" virtual choir



Cubase tour: "Hail Poetry" virtual choir

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Cubase tour: "Hail Poetry" virtual choir

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Wrapping up

- Virtual ensembles can look and sound great. Great publicity.
- They are tech heavy. Often more time spent on tech than music.
- Consider live, in-person alternatives
 - Play outside (distant)
 - Play inside (distant)
- And simpler remote alternatives
 - Zoom play-along
 - Multitrack audio
- Simpler project -> you play more music