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Using Multimedia To Enhance Lessons And Recitals

Part I

In our modern world, adapting to current technology represents a principal concern within every professional domain. Whether we discuss national security, innovations in medical procedures or public education, technology is part of the conversation. In the world of music education, teachers are adapting to current trends by using social media, educational apps and mobile devices to enhance student-learning experiences. As software and hardware prices have decreased, another growing trend is for musicians to enhance lessons and performances by adding multimedia elements to music. The label "multimedia music" refers to combining music with graphics or other media to enhance the sensory experience for both performers and audiences. Multimedia music is growing in popularity, but adopting it remains challenging for teachers who are unfamiliar with the possibilities or the required software and hardware. In Part I of this series, we outline practical and inspiring ideas for multimedia music and examine the technological requirements necessary to make multimedia music using YouTube and Visualizers. To give the best picture of how these ideas can work, we have referred to various YouTube videos. A playlist of these videos can be located on the Bonus Bytes section of MTNA's website.

Fortunately, many multimedia music experiences require relatively little effort and minimal resources to facilitate. YouTube, a free online tool, offers teachers a simple and effective way to incorporate visual media into private lessons, group classes and performances. While many teachers and students are using YouTube to see and hear model performances and to also share their own performances with others, YouTube videos can facilitate many more creative possibilities. For example, after discussing the mood and character of our student's repertoire, we can search YouTube for video clips that match the music. The teacher can even prepare in advance by creating a list of possible videos and having students choose from that list the clip that most closely matches the mood of the music. Then, students can practice playing along to the selected clips in the studio, during their home practice or in recitals. Alternatively, students could also create or improvise music based on the mood and character of a video in the style of a 1920s silent movie performance. Many YouTube videos exist as inspiration for this type of experiment. For instance, one video features a silent movie adaption of Edgar Allen Poe's *The Fall of the House of Usher* set to classical music (see Video 1). While certainly beneficial to the student who is honing improvisational skills, audiences will enjoy the experience as well. Demonstrating this, in a multimedia music concert titled *MusicAlive!*,[1] one young student improvised a soundtrack for a *Tom & Jerry* cartoon. At this performance, the audience

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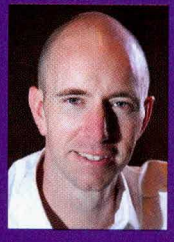

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responded with enthusiasm, laughter and wild applause (see Video 2).

Experimentation of this kind will obviously facilitate enriched musical experiences, and can even result in unexpected creativity. Another performer in the *MusicAlive!* concert used video clips from a nature documentary with the piece "Monkeys in the Tree" by Boris Berlin.[2] In the beginning section of the piece, you hear Berlin's piece accompanying the antics of a monkey on the screen. In the video, a rhinoceros then enters the scene, and so for the middle section of the piece, the student took the initiative to change the music, playing it slower and in a lower register, to match the movements of the rhino that was slowly walking through the forest (see Video 3).

Incorporating YouTube performances into the teaching studio and on the recital stage requires relatively inexpensive and familiar software and hardware. The most basic requirement is an Internet-ready computer (preferably a laptop for mobility) or tablet to access and manipulate the videos. For the most reliable form of access, capturing YouTube videos to local storage prevents problems with intermittent Internet access due to network outages. (We should of course be sensitive to copyright issues before capturing a video for public performance.) For this purpose, several free computer software titles are available such as *Videograbber*, *Download Helper* or *Keepvid*.[3] Similarly functioning mobile apps include *Video Downloader* in the iTunes App Store and *TubeMate YouTube Downloader* for Android.[4] After YouTube videos are captured, trimming or combining videos might be desirable. For editing video on a computer, standard software like Apple's *iMovie* or Microsoft's *Windows Movie Maker* works well. Apple offers a mobile version of *iMovie* for iOS and many video editors, like *Magisto Video Editor & Maker*, are available on Android.[5]

Regardless of the hardware choice one makes for presentation and editing YouTube content (laptop or tablet), the eventual experience relies also on the display device itself. In the teaching studio, the display size of a nearby laptop or tablet could be sufficient for individual lessons. For group lessons, a large-screen LCD television might be ideal. Recital

halls will require the largest display and represent a significant expense. However, many venues have already installed display equipment, usually an LCD projector and screen that can be used for performances. Purchasing a projector and screen could be affordable for use in smaller spaces, but for large venues, it would likely be cost prohibitive. To select the correct projector, teachers should refer to manufacturer and vendor guidelines to effectively match the size of the space and lighting with the necessary projector specifications.[6] Also, an adapter cable from the video source to projection device will be needed to transfer video to the display. These adapters connect a proprietary device (for example, an iPad or Dell Laptop) to a standard VGA or HDMI input.

In addition to using the endless source of videos offered by YouTube, we can employ live-reacting visualizers to easily enhance music performances. Requiring less preparation than YouTube videos (which might include capturing, downloading or editing videos), facilitating a performance with a visualizer would require the same hardware as a performance with YouTube videos. However, a laptop computer will offer more options and flexibility than a mobile tablet. The main difference between video and visualizers is that visualizers instantly react to the characteristics of the music. They are currently a built-in option in most digital music players. For instance, Apple's *iTunes* player offers the option to "show visualizer" during the playback of audio files.

While *iTunes*' visualizer reacts to pre-recorded audio, software like *G-Force* by Sound Spectrum[7] reacts to sounds acquired through an audio input, possibly through the built-in microphone on a laptop computer, tablet or a connected external microphone. *G-Force* offers students and teachers customizable features including the option to choose various colors and patterns.

Visualizers engage students and audiences as they see the music coming to life within the mesmerizing patterns displayed. Actually seeing the aural components creates greater awareness of the musical elements. Rhythmically, students see durations of long notes or fermatas and notice graphic space during rests. Dynamic shifts also instantly appear in visible

ways. This enriched sensory experience has the potential to motivate students and to develop their musical sensitivity and artistry. While helping students understand complex music they are studying by graphically unravelling textures and contrasts, it also enhances live performances. In the *MusicAlive!* concert mentioned above, several students performed using the software, *G-Force*, with great effect. Pieces like Beethoven's "Tempest" Sonata came to life through both the music and visual elements (see Video 4).

Facilitating similar pedagogical experiences, teachers and students with access to MIDI-connected keyboards can use the *Music Animation Machine* created by Stephen Malinowski (available on Windows only).[8] This software interprets MIDI data and graphically represents the actual pitch content. As demonstrated by the millions of views on YouTube, videos of music graphically displayed in this way have captured the attention of audiences. Example YouTube videos of this type include recordings of Beethoven's *Symphony No. 9 in D Minor, Op. 125* (see Video 5), and Brahms' *Piano Quartet in C Minor, Op. 60* (see Video 6). These recorded examples require extensive work to combine recorded audio with MIDI data to produce a visual representation. However, the *Music Animation Machine* software can also react to live playing on a MIDI equipped instrument. The visual results are not as dramatic, but they will facilitate pedagogically useful results in the studio. The software is currently available for free download and requires a MIDI enabled keyboard or piano (for example, a Yamaha Disklavier piano, or one equipped with a QRS PNOScan MIDI Record Strip).

As shown in Part I of this series, multimedia music provides a new and exciting way to foster student creativity and increase motivation. It also helps strengthen students' musical and artistic understanding. Demonstrating its effectiveness, following the *MusicAlive!* concert referenced above, parents and students responded enthusiastically in their comments below:

"As someone who does not enjoy performing in front of an audience, the addition of the visual component provided a distraction for me. I think I was still nervous, but at least I felt like all eyes were not on me!"

—Adult student

"I thought that the Music Alive! concert was a great way to change up the typical recital routine. I got to spend more time exploring the colors and textures of the music and then visually demonstrate even more of my interpretation in my performance. It was tons of fun, and my whole family commented on how much they enjoyed it."

—Student, age 17

"One of the things that I liked most was the individual creativity. It was so wonderful to see people of all ages coming up with their own music, interpretation, and ideas. The multimedia format was great at expressing what was in their heads and how they wanted to convey that to others. That is what makes music interesting and keeps them engaged. My kids had fun and so did my family that came."

—Parent

Obviously this concert made a positive impression for everyone involved. While traditional student recitals have merit, in today's technologically saturated world, we can capitalize on this opportunity to reach audiences in new ways. In Part II of this series, we will explore many more creative tools and discuss the technological needs and logistics required to facilitate multimedia music experiences.

Notes

1. *MusicAlive!* is an annual multimedia concert in the Cincinnati area featuring the piano students of Clinton Pratt, one of the authors of this article.

2. Boris Berlin, "Monkeys in the Tree," in *Celebration Series Perspectives, Piano Repertoire 4* (Mississauga, Ontario: Frederick Harris, 2008).

3. These software titles are available online at the following links: www.videograbber.net; www.downloadhelper.net; www.keepvid.com (accessed March 6, 2015).

4. The iOS app *Video Downloader* is available here: https://itunes.apple.com/us/app/video-downloader-download/id576731399?mt=8. The Android app *Tubemate* is available here: http://tubemate.net (accessed March 6, 2015).

5. The iOS app *iMovie* is available here: https://itunes.apple.com/us/app/imovie/id377298193?mt=8 (accessed March 6, 2015). The Android app *Magisto Video Editor and Maker* is available here: https://play.google.com/store/apps/developer?id=Magisto&hl=en (accessed March 6, 2015).

6. "Lumens Guide," Projector People, accessed March 6, 2015, http://www.projectorpeople.com/resources/lumen-guide.asp.

7. *G-Force* is available online here: https://www.soundspectrum.com/g-force/ (accessed March 6, 2015).

8. The *Music Animation Machine* software is available here: http://www.musanim.com/player/ (accessed March 6, 2015).

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BONUS BYTE

To see the playlist of the videos mentioned, visit the Bonus Bytes page: www.mtna.org/american-music-teacher/bonus-bytes/.