

Video and Podcasting Tools for Blended, Flipped, and Fully-Online Music Theory Courses

Gregory R. McCandless
Full Sail University

Anna Stephan-Robinson
West Liberty University

Introduction

On October 31, 2013, Nancy Rogers (Florida State University) chaired a session at the Society of Music Theory Annual Meeting in Charlotte, North Carolina titled “Technology-Enhanced Instruction.” This session, sponsored by SMT’s Professional Development Committee, featured work by four scholars teaching music theory courses in blended, flipped, and fully-online contexts at several types of post-secondary institutions: Jan Miyake (Oberlin College Conservatory), Anna Stephan-Robinson (West Liberty University), Deborah Rifkin (Ithaca College), and Greg McCandless (Full Sail University). This essay summarizes the contributions of each presentation, focusing primarily on video and podcasting tools that can be used in several pedagogical contexts. These tools have become increasingly prevalent in higher education and can be employed in blended, flipped, and fully-online music theory courses.

Blended courses (i.e., traditional campus-based courses that include online resources) benefit from screencasts, podcasts, and other instructional videos as these delivery formats provide students with the opportunity to regulate the flow of information individually. Students can independently watch, pause, rewind, and re-watch videos and podcasts at home, reinforcing concepts that were introduced in class at their own pace without experiencing the fear or anxiety related to asking questions or indicating a lack of understanding in a group setting. A further benefit to using these digital formats is that

they conform to millennials' preferred learning environments, which involve interactive multimedia and online activities.¹

Flipped classes also benefit greatly from videos and podcasts. These land-based classes essentially move lectures and other passive learning activities out of the physical classroom space, instead transforming them into videos, podcasts, and other materials that students use as preparatory homework prior to each live meeting. Discussions, group work, and higher-level learning tasks—such as application, analysis, and synthesis—are then completed with the instructor present in the classroom. The successful use of video and podcasting tools allows flipped courses' out-of-class lectures to be sufficiently engaging and explanatory to adequately prepare students for synchronous group work and classroom activities.

To form the basis of fully-online curricula, videos and podcasts can additionally combine with other resources, such as music theory drilling software, virtual classroom environments, e-books, websites, online databases, learning management systems (LMS), online quiz engines, and electronic assignments that use notation software programs such as Sibelius or Finale. Within the context of fully-online courses, video tools can serve many purposes; these are described in more detail by Greg McCandless's presentation, addressed at the end of this essay.

Overall, the simple, inexpensive, and easy-to-implement strategies discussed by Miyake, Stephan-Robinson, Rifkin, and McCandless represent a variety of ways in which technology can enhance student learning and make any classroom—be it land-based or virtual—more student-centered, efficient, and engaging.

¹ See Christy Price, "Why Don't My Students Think I'm Groovy?: The New "R"s for Engaging Millennial Learners," *The Teaching Professor* 23 (2009).

Lo-Fi Podcasting in Blended Courses

Jan Miyake began the session with her presentation, “Two Low-Frill, Easy, and Effective Ways to Use Technology.” Miyake’s focus was on demonstrating technological tools that provide a substantial amount of “bang for the buck,” as she noted that learning and using technology in the classroom often requires significant investments of both time and energy, which can potentially dissuade instructors from continuing with (or even beginning) such an endeavor. Therefore, her examples are the easiest for the technology novice to implement.

The centerpiece of this presentation was audio podcasting, used in the specific context of assessment. Miyake showed examples in which she commented on student homework submissions using brief audio recordings that demonstrated several pedagogical advantages. First, podcasts allow the instructor’s personality and care for each student to be more directly evident than with red-pen comments, which helps in establishing rapport. Second, podcasts allow instructors to sing and/or play an instrument along with their commentary, making assessments less abstract, more musical, and simply more fun for both students and instructors. Third, they take very little time to record and export, and require software that is typically free.² Fourth, audio podcasts typically have file sizes that are far smaller than video files, and are thus easier to share with students (e.g., via email). Finally, musical, individualized, and clearly explanatory podcasts of this nature can allow for more synchronous classroom time to be dedicated to meaningful, higher-level activities, as instructors may be able to eliminate portions of

² Common audio recording and editing software that is used for podcasting includes free programs such as GarageBand (Mac) and Audacity (Mac, PC, or Linux).

class that would otherwise be dedicated to homework review and the clarification of written comments on assignments.

Miyake additionally presented a second technology-enhanced teaching method: receiving, commenting on, and returning simple writing assignments using Google Docs within the Google Drive suite. Although this solution does not pertain to podcasting or video instruction, it merits mention for being quite useful and efficient. Students simply submit their written work by uploading it to Google Docs and sharing the assignment privately with their instructor using the “Share” button within the interface, being sure to allow the instructor editing rights in the subsequent pop-up menu. Instructors are then able to comment directly on the file, and even have a text conversation with the student directly within the document if both parties are online simultaneously. This strategy saves paper as well as time, as instructors can access and assess student submissions as soon as they are shared within Google Drive, eliminating the need to wait until the next class meeting to collect papers from the group (as well as eliminating the requisite expenditure of class time for the collection itself). Students also benefit from this approach, as they can potentially receive feedback on their work more quickly.³

Enhanced Podcasting in Blended Courses

Anna Stephan-Robinson continued the discussion of the effective use of podcasts in blended and flipped music theory courses with her presentation, “Enhanced Podcasting in Theory and Aural Skills Classes.” In addition to the prerecorded or instructor-created

³ Though Miyake demonstrated Google Docs as a way to establish a writing space for every student in a class, they can also be used to increase student accountability on an individual basis. For students who require closer-than-normal oversight, a Google Doc can be shared among the student, the theory instructor, and the student’s advisor and/or applied professor, allowing several faculty members to reinforce the connections between the student’s classroom and applied study. Stephan-Robinson has found some success using Google Docs in this manner.

audio content in regular podcasts, an enhanced podcast can include links and still images, such as score excerpts, bullet points, and graphic examples. Each picture can mark a chapter, making navigating through enhanced podcasts a simple matter. Though they are bit more time-consuming to create than audio podcasts, enhanced podcasts have the benefit of allowing the instructor to ensure that students view images that are correctly synced with audio. Like audio podcasts, enhanced podcasts possess relatively small file sizes compared to video files. Figure 1 is a still image from a simple enhanced podcast that Stephan-Robinson has used in her theory class; its goal is to provide audio of textbook examples and explain their purpose.

Example 5.4g

- $i - ii^{o6} - V - i$
- **BAD!**
- Parallel fifths!
- Soprano & alto

Figure 1 – Image used in an [enhanced podcast on part-writing examples from a textbook](#).

Enhanced podcasts can serve several functions in blended or flipped classes. For music theory classes, an instructor can use an enhanced podcast to present a series of

examples on a harmonic, rhythmic, or melodic topic; to create a multimodal form diagram; or to provide content in the case of a planned absence. Aural skills applications include demonstrations of related but non-identical sonorities, guided dictation exercises, accompanied melodies for students to prepare, and tonal patterns to be memorized that are presented in music notation, aurally, and with solfège and chord symbols. Figure 2 is a still image from an enhanced podcast that explains a number of chromatic techniques in a brief art song. Enhanced podcasts that are confined to a single topic and include a relatively large font are particularly effective; they benefit students by being modular, concise, and accessible to students with visual impairment. Stephan-Robinson concluded her presentation by briefly demonstrating how instructors can produce an enhanced podcast using Apple's GarageBand software, as well as how students can view it using iTunes on a PC or Mac.

Worries burden me heavily; I am deceived, alas! Deceived By everything around me!

Sor - ge la - stet schwer, be - tro - gen, ach, be - tro - gen hat al - les mich um - her!

The image shows a musical score for Schubert's "Die Liebe hat gelogen" (op. 23, no. 1, D. 751). The score is in G major and 3/4 time. It features a vocal line and a piano accompaniment. The piano part has several annotations in blue callouts:

- A callout pointing to the first measure of the piano accompaniment: "ii^{o6}₅ Fr⁺⁶ V Chromatic voice exchange between bass and 'tenor'"
- A callout pointing to the second measure: "Sounds like an applied chord to iv"
- A callout pointing to the third measure: "NOT iv!!"
- A callout pointing to the fourth measure: "But IV, then iv, here instead."
- A callout pointing to the fifth measure: "Cadence in parallel major key!"

The score also includes solfège syllables (Fa, (de), sol) and dynamic markings (f, fp).

Figure 2 – Image used in an enhanced podcast on chromatic techniques in Schubert, “Die Liebe hat gelogen” (op. 23, no. 1, D. 751)

Low-Fi Screencasts and Instructional Videos in Blended and Flipped Courses

Deborah Rifkin's presentation, "A Practical Guide to Creating Instructional Videos and Screencasts: Technology Resources for Blended and Flipped Pedagogy," continued the discussion of useful technological tools for music theory courses by focusing on the production process for videos and screencasts. Rifkin's presentation demonstrated easy-to-learn, free computer software—and free or low-cost iPad applications—that can be used to create brief instructional videos.

One of the primary benefits of the workflows Rifkin explained in her presentation is that they typically involve free software that does not require any lengthy setup, allowing the instructor's focus to remain on the music theory content, not the technology. One such software program is TechSmith's Jing, which allows instructors to create brief screencasts (under five minutes in length) using only a few mouse clicks. Jing hosts the completed videos on Screencast.com, allowing them to be shared, linked, or embedded in emails, websites, and social media platforms via a provided embed code. Mac users also have an easy, free screencasting option with QuickTime X, which comes pre-installed with Mac OS X versions 10.6 and later. In addition to capturing desktop and microphone inputs for screencasts, this program allows users to capture audio and video recordings separately. Rifkin explained how videos created using programs like these can be employed in a variety of effective ways, either as supplements to class in a blended environment or as the primary means for introducing new concepts in a flipped scenario. Figure 3 shows an image from a screencast video explaining inversions of seventh chords that Stephan-Robinson has used in her (flipped) first-year theory class. This QuickTime video demonstrates some of the considerations Rifkin mentioned during the session: the

basic content appears on the screen before the video starts, and the explanation is limited to a single concept. Further, it reinforces a theme that all of the presenters touched upon: avoiding perfectionism while creating instructional materials. While creating this video, the instructor was interrupted, so she simply stopped the video, picking up where she left off in a second video.

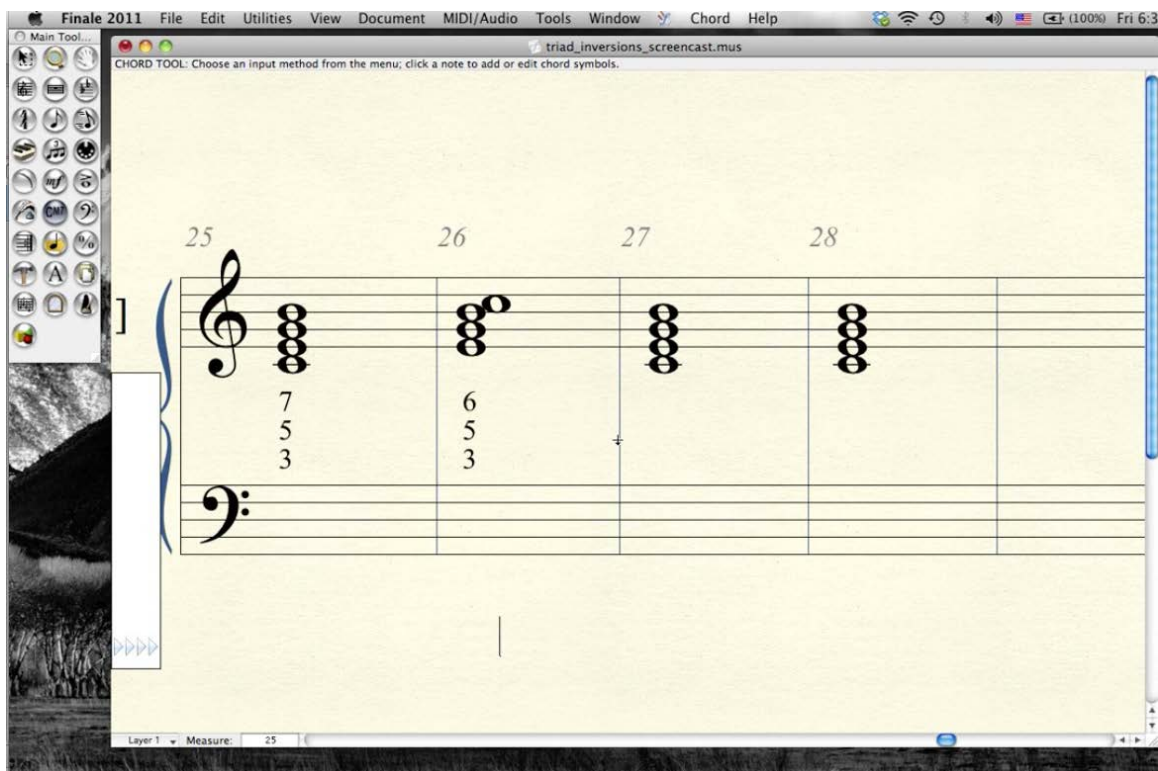


Figure 3 – Still image from a [screencast on seventh chord inversions](#).

Beyond the software that Rifkin demonstrated, there are also several other free screencasting programs that are currently available to instructors on both Mac and PC platforms. PC users can take advantage of the free, open-source software CamStudio, which offers cursor highlighting and text callout functionalities. Another useful option is Screencast-O-Matic, an entirely browser-based (and thus cross-platform) solution that does not require any software installation or hard drive space. Screencast-O-Matic can

prove especially useful for instructors, as it allows users to shoot “retakes” from specific timeline positions in any recorded video, which can effectively substitute for some of the editing features provided by more expensive software options. Additionally, users can choose to either export their completed screencasts—which can be up to fifteen minutes in length with the free version—in AVI and MP4 formats, or upload them for browser-based streaming access. The videos may be stored on Screencast-O-Matic’s proprietary website, where they can be made unsearchable and only accessible via a custom weblink, or uploaded directly to YouTube, which can be especially beneficial for instructors whose LMS supports embedded YouTube videos.

Rifkin concluded her discussion with an introduction to the annotation functionality within YouTube, which can optimize videos by making them interactive and more clearly explanatory. There are several beneficial uses of YouTube annotations in the context of instructional videos, such as providing additional information or clarification with pop-up text callouts, navigating to or skipping sections of a video based on student responses to questions provided within the annotation, and linking students to web resources or other videos related to the topic being shown.⁴ Rifkin noted that interactive videos featuring annotations boost engagement and prove that video instruction need not be passive (a common stigma associated with online instructional techniques).

Hi-fi Screencasts and Instructional Videos in Blended, Flipped, and Fully-Online Courses

Finally, Greg McCandless, who teaches in a fully-online music program at Full Sail University, gave a presentation titled “Using Video to Enhance (or Create) the Music

⁴ Detailed instructions for creating YouTube annotations can be found [here](#).

Theory Classroom,” which provided examples of screencasts and instructional videos that represented a wide range of production values and associated costs.

First, McCandless presented a screencast made in Telestream’s Screenflow application (\$99) that provided students with clear, audiovisual directions for a typical theory assignment. Video assets such as these can obviate the need for clarifying homework directions in the synchronous class session, increasing time available for meaningful content, such as hearing and analyzing a new piece, or discussing how the material covered in class could transfer to students’ individual pursuits as musicians. Assignment description videos can also make instructors feel freer to give assignments that have more complicated directions or involve multiple pieces of software. Assignments like these might require several pages of text explanation, but can often be explained more efficiently and effectively in a brief video tutorial.

McCandless then demonstrated another way that video can be used to help stave off student emails and questions related to assignments by presenting a so-called “walkthrough” video. Videos like these show students how to apply theory concepts in scenarios that are similar to their homework. McCandless noted that when creating walkthrough videos, he simply verbalizes his decision-making processes while completing exercises that reinforce key points from the lecture and textbook. He explained that he intentionally avoids planning ahead in these walkthroughs, so that students can hear him struggle, make mistakes, and correct his own errors; this in turn fosters students’ own error detection and correction abilities.

Building upon Miyake’s example of an assessment podcast, McCandless additionally presented a screencast created in ScreenFlow to illustrate how such software

can be used in assessment. This screencast demonstrated ScreenFlow's webcam video functionality in addition to its desktop sharing and audio recording capabilities, which combine to allow students to receive feedback while looking at their assignment, hearing their instructor's voice, and seeing his/her face and body language, which creates a very personalized, human communication.

The next examples displayed how screencasting programs and/or video editing software can be used in conjunction with presentation and music notation software to create media-rich video lectures or microlectures with relatively higher production values. Figure 4 is a still image included in a video lecture on inverted triads.⁵ A brief clip from the video can be viewed [here](#).

Chord Example			
Chord Type	Triad	Triad	
Chord Tone In the Bass	Root	Third	
Chord Position	Root Position	First Inversion	
Chord Symbol	D	D/F#	



Figure 4 – Keynote slide used in a [video lecture on inverted triads](#).

⁵ Special thanks to Eric Brook (keyboard), Scott Dickinson (piccolo trumpet), and Michael Schiciano (tracking and post-production) for their roles in the creation of this video.

McCandless noted that while instructional videos like these can function as supplementary lessons or concept reinforcement solutions in blended classes, or as primary lectures in a flipped classroom (which was echoed by Rifkin), they can additionally serve as the basis for online curricula. The first video lecture example that McCandless presented used a relatively simple and cheap workflow, with ScreenFlow being used to capture the desktop and built-in microphone inputs during a live “performance” of a Keynote (Mac-only, free as of the time of writing) presentation. As ScreenFlow includes basic video editing functionalities, a variety of video transitions and actions were included (most commonly the zoom feature, which was used to focus on important objects on the screen).

McCandless then explored a few ways that instructors with a larger budget (and/or an instructional design team employed by the university, as in his case) can employ a higher production value that serves the same purpose, but looks sharper and additionally incorporates live video for a more immersive, lecture-like experience. The next example was an excerpt from a lecture on the diatonic modes that included still images exported from Keynote, live video shot with HD cameras, and animations created using Adobe’s program AfterEffects (\$375), all of which were then combined and rendered within Apple’s Final Cut Pro video editing software (\$299). McCandless explained that although this production workflow was far more time consuming and involved more expensive software and hardware than earlier examples, it provides an idea of what is possible with common consumer software and hardware, and additionally demonstrates what will become more realistic in the coming years as these items become more affordable and ubiquitous.

The presentation concluded with a brief overview of virtual classrooms such as GoToMeeting (\$468/yr) and Adobe Connect (\$540/yr), and demonstrated how video archiving functionality can provide both synchronous and asynchronous music theory instruction. Specifically, McCandless showed how instructors can use a virtual classroom environment to host a synchronous online lecture while archiving the class using its video recording feature (or, alternatively, a screencasting application) to allow for asynchronous playback. This solution provides students with the opportunity to participate in a truer classroom experience in real time while also affording them the ability to play back portions of the class they want to review later. Additionally, archiving offers those students who were unable to attend the live session access to the class that they would not otherwise have in a campus environment.

Conclusions

The session concluded with a lively, though truncated, discussion period. Despite their varying techniques and approaches to software and file formats, all four presenters touched upon some common, important themes. First, the presenters demonstrated the primacy of pedagogical goals, with technology solutions being used solely to attain these goals in an efficient and effective manner. Though several software products were mentioned in the course of the four presentations, the focus was on the student benefits related to employing such software, not the software itself. A second theme that became clear during the session was the perhaps counterintuitive increase in the “human feel” of courses whose communication is mediated by technology solutions such as those presented by Miyake, Stephan-Robinson, Rifkin, and McCandless. Regardless of the production values associated with each of the solutions, they can all aid in student

learning and help instructors connect with students on a person-to-person level. Finally, it was instructive that similar video and podcasting tools were shown to be useful across a spectrum of music theory courses (blended, flipped, and fully-online) by scholars representing a variety of college programs (public, private, for-profit, not-for-profit, liberal arts, conservatory, and technical school). This reinforced the idea that all theory instructors share the same goal, even at different kinds of institutions and in different kinds of classes: to help students engage with the materials of music in the most meaningful way possible.