Bain, Reginald
iPad Web App Development for Music Theory

Multi-Touch technology has transformed the way we want to interact with applications. This paper will discuss techniques and strategies for taking existing Web-based applications for undergraduate music theory and adapting them to take advantage of the iPad's built-in hardware features. The iPad's multi-touch interface, multimedia capabilities, and larger screen are just some of the features that make it an ideal platform for such applications. Rather than building iPad (iPhone) apps using application programming interfaces (APIs) like Objective-C or Cocoa Touch, which have rather steep learning curves, educators may develop compelling instructional content using the Web standards HTML5, CSS3, and JavaScript which are comparatively easier to learn, maintain and enhance over time.

Bamberger, Jeanne
The Music Within Us: A Pathway into Knowledge in Action

In this presentation we will introduce and work with the interactive computer music environment, Impromptu. Designed to help users develop their powerful intuitions, Impromptu is a cross-platform computer application, soon to be available as an iPad app.

The presentation will also include an overview of the research leading to the development of the environment, discussion of its effective uses in elementary school general music classes, beginning music theory programs, and also as an environment for working with pre-service and in-service teachers.

Bauer, William (Case Western Reserve University)
Integrating Technology in the Music Classroom: Operationalizing Technological Pedagogical and Content Knowledge (TPACK) through Activity Types

To successfully achieve technology integration in music classrooms and rehearsals requires careful planning of student learning experiences, a difficult process for teachers who have little background in the pedagogies of teaching with various technologies. An activity types (http://activitytypes.wmwikis.net) approach to instructional planning emphasizes consideration of curricular learning goals and generalized learning activities before considering the affordances and constraints of various technologies that may be used to support student learning. This presentation will describe the development and refinement of a taxonomy of music learning activity types that were developed through a collaborative effort between a music education content specialist/researcher and two educational technology researchers who are experts in TPACK and the activity types paradigm. The resultant musical activity types, available under a Creative Commons license, are designed to provide a reference for teachers that connect curricular content with content-based activities and technologies that will support those activities.

Bauer, William (Case Western Reserve University)
Technology in Music Teacher Education: A National Survey

The recent removal of technology from the NASM standards provides an occasion to examine the role of technology in the music curriculum. This presentation focuses specifically on technology in the music education curriculum. Data from a national survey of music teacher educators will be used to describe the the extent to which technology competencies are being taught; teacher educator attitudes toward

music technology; models for incorporating technology into the curriculum; the perceived effectiveness of these approaches, and the technology skills of incoming music education majors. The broader implications of these findings for music teacher education will be discussed.

Bowman, Judith
Welcome to the Future: Educating Educators about Today's Technology

In today's digital world, it is crucial for educators and students alike to engage with digital technologies relevant, not only to their disciplines, but to contemporary society at large. For these parties, growing up with digital tools is one thing; using them effectively is another. In order for professors to integrate relevant digital technologies into their curricula, second-order barriers such as overall education philosophy and established classroom practices must be addressed, and limited knowledge of and experience with technological tools, techniques, and their combination in achieving more complex goals and tasks must be overcome. To address these issues we developed a strategy that included a faculty technology survey, followed by a professional development program consisting of department meetings, mini-workshops, and coaching sessions to support curricular uses of technology that align with development of competencies students will need after graduation. This presentation will report results of this ongoing program.

Cartledge, David
Teaching Piano Literature Using a Digital Music Library

A Digital Music Library allows digitized streaming of library collections, and a number of useful classroom and study features: timelines, playlists, and digitized scores. I will show the use of the DML in the Piano Literature classes I teach, particularly my use of the timeliner. This tool, with an online course environment, can provide students with full analyses of works through an interactive environment. The opportunity to listen with an analysis provided real-time allows students to experience to the structure of a work anticipatorily. Students come to class with familiarity with structures and elements of the works involved, and relate more directly to the musical content. We will explore the origins of the DML, and see, in specific works, how the tools it provides are used in the classroom environment. We will also address effective uses of the DML audio player, the playlist tool, and the score viewer.

Chesky, Kris
The Integration of Current and Emerging Technologies into the Ensemble Environment to Address new NASM Health and Safety Standards.

A new NASM Accreditation Standard (Nov 2011) states that it is the obligation of the institution that all students in music programs be fully apprised of health and safety issues, hazards, and procedures inherent in practice, performance, teaching and listening both in general and as applicable to their specific specializations. The associated NASM/PAMA Hearing Health Advisory (Nov 2011) directs institutions to use technologies to understand, inform, and manage risk generated in various ensemble-based instructional activities. This workshop will cover federal health and safety codes, standards and procedures related to noise exposure, and the basics of sound level monitoring, including advantages and disadvantages of sound pressure level meters, noise dosimeters, and other emerging computer-based measurement technologies. Educational objectives will focus on managing various ensemble-based instructional activities in ways that produce positive relationships among artistic and educational goals, expressive possibilities, and hearing health.

Cremata, Radio
The Best Things In Life Are Free - Synthesia, YouTube, & Beginning Piano Students – A Mixed Methods Investigation

Synthesia and YouTube are free and readily accessible multi-platform digital tools being used by people to learn piano/keyboarding. The purpose of this presentation is two-fold. First, it explores beginning piano/keyboarding students' perspectives on the functionality, feasibility and overall experiences associated with learning piano/keyboard through Synthesia and YouTube. Second, it reports quantitative data regarding students who were measured on timed music learning tasks to determine the speed of mastery of piano music on notation based piano/keyboarding learning music software compared with Synthesia and YouTube. This mixed-methods approach captures the lived experiences and rich perspectives of participants through ethnographic field techniques, along with experimentally controlled quantifiable data. Ultimately, the purpose of this research is to highlight the ways in which music technology can address the evolving needs of the modern 21st century music education populace through the shared experiences and perspectives of students interacting with free and readily accessible music technology tools.

Dammers, Rick
TI:ME Technology Leadership Academy: Pre-service music education training for reaching non-traditional school music students.

This session will present the efforts of a unique, national program to provide leadership training to pre-service music education students, the TI:ME Technology Leadership Academy. The program was funded with a NAMM Program Grant and held over three days in parallel with the TI:ME/JEN Conference in Louisville, Kentucky, January 2012. Eight students were competitively chosen through a national competition. The session will share the design and objectives of the leadership program, examples of academy participant work and assessment results, and offer a model for similar leaderships programs that may be implemented within college music education programs or as engagement opportunities for area music teachers.

Dammers, Rick
See Bauer, William (*Technology in Music Teacher Education: A National Survey*)

Dorfman, Jay
Reinventing Music Education Technology Courses

This presentation will explore the idea that, despite their relative youth, courses in technology for music education students are now subject to traditional designs and contents. Future structures for courses might be treated in much the same way as courses in instrumental, choral, or general music methods. The presentation will include frameworks that can help instructors develop these courses, and will explore the feasibility of adapting the limited time usually allotted to these courses to produce more effective and desirable outcomes.

Dunn, Stephen
Music for Trumpet and Electronics

This proposal is for a 30-minute recital of music written for trumpet and electronics. This music specifically calls for live trumpet sounds, pre-recorded trumpet sounds, live electronic processing and

video. The program includes three works: Metallics, for trumpet & real-time electronics Work Page (Yan Maresz 1995 10'45"): Two Eclipses for trumpet, electronics and video (Paul Hembree 2009, revised 2012 5'); and Three Ventures for Solo Trumpet and Electronics (Stephen Dunn 2011, 9'). One of the movements from the later piece is included in mp3 format with this proposal and a sampling of other works can be viewed at: http://www.youtube.com/watch?v=Dw14HO1j_qE

Enloe, Lorie
Got Apps?: Using iPads in the Music Classroom

Banister (2010) explained that mobile devices like the iPod Touch, iPhone, and iPad are capable of completing complex tasks that can meet a variety of education objectives in the classroom. This demonstration will provide an overview of functions that can be performed on the iPad that a music educator can use to deliver effective instruction and classroom management. The first presenter will focus on iPad software and applications that can be used in the general music classroom, with special learners, and to teach world music. The second presenter will explain how to use the iPad in the secondary and instrumental classroom and how to train pre-service teachers to use the iPad in their future classroom. Presenters will share their experiences of success and of failure with the iPad in their music education courses. The use of alternative tablets and mobile devices, such as the iPhone, will also be discussed.

Ewell, Terry
"Some Dos and Don'ts for Online Instruction"

Today's college students are well-seasoned veterans of online interaction. There is no question that many college students come with technological skills and expectations different than those of past generations. At issue, however, is whether university professors can and are willing to adjust course delivery to take advantage of the online skills students already possess. Furthermore, even if professors are willing, how do those trained in face-to-face instruction adapt to this new online forum, leaving aside perceptual distances or prejudices? This presentation will highlight important differences between online and in-class education. The explanation of these differences will direct one toward a better understanding of effective online instruction. The author will discuss best practices for content delivery, assessment of skills, testing, and course development. The author draws upon over a decade of experience distributing pedagogical materials via the Internet.

Fisher, Ryan
Breaking Down Barriers to Online Course Delivery: Tools and Strategies for Online Music Instruction

Many collegiate music instructors consider online instruction outside of the realm of possibility for their discipline. The session will focus on dispelling this myth by providing practical examples of accessible strategies for leveraging web-based technologies to facilitate active music instruction for each area within the collegiate music program. Specific topics addressed in this session will include group video conferencing, learning management systems, mobile apps, and collaborative platforms specific to music.

Fredenburg, Sean
Post-Haste Reed Duo: Expanding Chamber Music through Electronics

Chamber music for the reed duo combination of saxophone and bassoon continues to grow in repertoire. Using technology to expand this genre helps composers and performers alike realize new

music for this medium. The combination of acoustic and electronic elements in a chamber music setting creates a unique environment for music making. Composers are not burdened by a past tradition of established masterworks since the combination of saxophone and bassoon is a recent development of the wind chamber genre. The result is a willingness between composer and performer to experiment with a mixture of acoustic and electronic sounds that enhance the listening experience. The diversity of the electronic component ranges from purely synthesized sounds, looped voice and recorded instrumental sounds in a fixed playback setting, to live electronic manipulation in a performance setting. These variants give added diversity to the artistry between the acoustic and electronic components of the music.

Gonzales, Cynthia
SmartMusic for the College-Level Aural Skills Curriculum

SmartMusic is emerging as a viable sight-singing practice tool for use in college-level aural skills courses. SmartMusic offers students a practical, accurate, and easy-to-use interface in which to practice sight-singing outside of class. The primary advantage is the immediate visual assessment of a performance. Pitches and rhythms performed correctly appear on-screen in green. Those performed incorrectly remain black, surrounded by red stemless note heads that approximate student errors.

This presentation focuses on implementing SmartMusic in a college-level aural skills curriculum. (1) The presenters have prepared college-level sight-reading materials to upload into SmartMusic: melodies from the common-practice and chromatic repertoire, melodies from lesser-known copyright-free collections (such as the Dannhäuser), modal melodies, and bass lines. (2) Files are freely available from a file sharing website, organized by content. (3) Each presenter will share how s/he uses SmartMusic with classes.

Graf, Sharon
Inventing Music Technology, Learning about Culture: An Innovative Global Approach to Learning Music Fundamentals

Our paper presents an overview of a course we teach titled “Music, Technology, and Culture,” which satisfies a general education requirement in Creative Arts/Humanities at our university. Our goal is to enable students to recognize how people around the globe have been refining technologies to produce desirable sounds for thousands of years, expanding student understanding of music and technology in our contemporary society. At the same time, students cultivate their own creative instincts by inventing an original instrument. The final project is a composition that incorporates the new instrument and is supplemented by musical sounds arranged using audio software. We will demonstrate successful completion of course objectives with actual examples of student creative works, which incorporate an understanding of fundamental music concepts and of the relationships between music and technology in a variety of cultural contexts.

Greher, Gena
See McConville, Brendan (An App a Day Keeps Poor Grades Away: Perspectives on Current Mobile Applications for Music Instruction)

Greher, Gena
See Bamberger, Jeanne (The Music Within Us: A Pathway into Knowledge in Action)

Hall, Richard
"Dazzle" Your Audience: Utilizing Quartz Composer to create live, interactive visual elements for musical performance.

This presentation will be in the form of a workshop/forum demonstrating the software Quartz Composer, a Macintosh customizable visualizer. The presented techniques can be used by the participants and their students to create performable or prepared visual projections/presentations/videos to enhance music performances, particularly those incorporating modern and/or electronic music. Topics to be covered will include: introduction of the software, basic setup, utilizing MIDI controllers, and interactive applications of the software. The presentation will also include a discussion about the advantages/disadvantages of creating electronic visuals for music performance.

Heil, Leila
Music Technology Lab: A Case Study

This presentation will focus on curriculum strategies for music technology instruction and results of collected data describing the effectiveness and impact of technology instruction at a large suburban high school. The first portion of the session will provide an overview of a model curriculum for song writing and basic film scoring which align with National and State Content Standards in the areas of music literacy, creativity, composing and improvising; program strategies for enhancing AP Music Theory course and Piano Labs through available music theory programs, i.e., music literacy, skill development, drill of fundamentals, score study and listening; enhancement of performing arts classes through experience with music theory software. The second portion of the presentation will include a description of student survey results, classroom observations, and student interviews highlighting student engagement, motivation and music interest as a result of music technology study.

Heisler, Jeffrey
Brahma Viharas for multiple saxophones and electronics

In Brahma Viharas for multiple saxophones and interactive electronics, I looked for a new medium of expression for a meditation that dates back 2,500 years. The Brahma Viharas, or Heavenly Abode, are four meditations proposed by the Buddha that are used to cultivate universal benevolence through Loving Kindness, Compassion, Equanimity, and Sharing Joy. The meditations are characterized by a vast, limitless expansion without boundaries. In order to represent these qualities, I recorded a good friend and colleague playing fragments from each of the movements, and then used granular synthesis to create ever-expanding layers of sound. The live performer triggers the entrance of these layers through use of an interactive playback engine in Max/MSP.

Hellier-Tinoco, Ruth
Ultra-sonic improvisation, inclusion and advocacy: dancing sound in an invisible beam of Soundbeam technology

Soundbeam, a sensor technology engaging an ultra-sonic distance-to-MIDI convertor, allows movements, at a distance and without physical contact, to trigger and control musical sound. With a focus on pedagogical and ethical concepts of reciprocity and relationships, I offer insights into improvisatory creative practices of musical/movement composition, and the politics of inclusion, empowerment, well-being, and pleasure through a community model of shared interactions and

collective play. Focusing on my own use of this technology as director of the Inter-Act Theatre Workshop, an integrated project in a university setting, involving adults with a learning disability, students, and faculty, I cover ontological (what is it?) and pragmatic (what can it do?) issues, engaging scholarly discussion, video extracts, and live demonstration of the technology.

Herndon , Hillary
See McConville, Brendan (*An App a Day Keeps Poor Grades Away: Perspectives on Current Mobile Applications for Music Instruction*)

Heuser, Frank
Faculty and Students as Partners in Co-designing an Undergraduate Music Technology Course

Although they do not yet understand how to construct curriculum, undergraduates entering university music education programs do have considerable fluency in using technology and have the potential of being contributors in developing forward looking courses that might interest and challenge future teachers in the area of music technology. This presentation examines a music education technology course that was co-developed with input from students. The session will present the content of the course that was co-created with students, examples of student projects, and reflections of the course creators as well as the students who participated but were not involved in the creation of the class.

Hosken, Dan
See McConville, Brendan (*An App a Day Keeps Poor Grades Away: Perspectives on Current Mobile Applications for Music Instruction*)

Kersten, Fred
Internet2--A Promising Horizon for Music Performance and Instructional Interactions: What is it and what can/cannot it do?

This presentation will examine Internet2 (I2), what it is, what it is not, and its existing and future opportunities for music interaction. Examples of occurring involvement of those in our profession presently serving as utilization leaders with this medium will be examined. Suggestions for creative future involvement by music faculty will be provided. Participants will have the opportunity to download and assess "Internet2 Detective" software, which can aid them in determining if their school and system are part of the current I2 system.

Kirk, Shana
Multimedia in Concert Performance: Preparing Your Students for the Stage in the 21st Century

Every teacher needs to ask the question: Am I preparing students for my past or for their future? Our students' world is a world of technology and multimedia, which means that it is a world that offers rich tools for reaching out to and engaging audiences.

This session will provide examples that address a number of important questions, such as:

When is multimedia appropriate for a performance of art music?
What skills are required for putting together a multimedia performance?
What are the mechanics of creating a musically interactive presentation?
How does a performer coordinate multimedia elements while playing an instrument?

Can a video actually follow a performer?

During the presentation, a number of accessible but powerful tools will be presented and the presenters will perform a variety of musical excerpts to illustrate the key points.

Kirk, Shana
Distance Is No Object! Long Distance, Real-time Instruction Is Now a Mature Field

First there was Skype and similar video conferencing programs. Then, there were technologies for connecting MIDI instruments over the Internet. Today, the field of long distance teaching has matured to include technologies for:

--dynamically showing instrumental fingerings over the Internet using intelligent, interactive, animated instrument displays

--accompanying a student from a distance

--sharing musical score displays

--controlling cameras and microphones from a MIDI keyboard

The challenge for the contemporary teacher is to figure out how to assemble, harness, and deploy the available resources in an ergonomic and sensible fashion. Teaching time is precious and should not be spent struggling with technology. This session will provide real-time and recorded video examples of long distance teaching for various instruments, demonstrating the ease with which lessons can be given. This session will further deconstruct the tools themselves and show how to master them.

Kirk, Shana
Video Lessons in a Snap

Do you ever wish you could reach more students in a day? Do you have unique ideas you'd like to share with more of the pedagogical world (without having to write a book)? Do you feel you need to justify your one-on-one student ratio with the rest of the offerings in the university catalogue? Enter the world of on-demand pedagogical "shorts."

With a few simple tools, master teachers can suddenly reach an unlimited audience as never before. In this session, veteran multimedia presenters will share simple, yet effective tools for making attractive, engaging online content without sacrificing hours of office time. Special focus will be placed on the use of musically intelligent tools for illustrating points and video editing tools than enable the quick completion of a video project.

Litterst, George
See Kirk, Shana (*Multimedia in Concert Performance: Preparing Your Students for the Stage in the 21st Century*)

Litterst, George
See Kirk, Shana (*Distance Is No Object! Long Distance, Real-time Instruction Is Now a Mature Field*)

Litterst, George
See Kirk, Shana (*Video Lessons in a Snap*)

Manzo, V.J.
Using interactive software to conceptualize and perform chords & progressions

This PhD dissertation study attempted to separate the cognitive functions of analyzing chords and progressions from the physical actions involved in performing them by allowing individuals to play diatonic chords using a custom software-based musical instrument.
Determining chords and progressions by ear is part of musicianship, yet this is a skill in which many musicians are deficient. A common remedy is to have students play the piano in an effort to have them experience chord motion. However, those who lack the same proficiency on a piano as they do on their primary instrument, such as monophonic players, could spend more effort on the physical act of performing the harmony on the unfamiliar instrument than on actually listening to and conceptualizing the harmony and its context/motion. Experimental group participants in this six-week study used interactive software to perform chords to/with popular songs while participants in the control group used a piano.

Manzo, V.J.
See Dammers, Richard (*TI:ME Technology Leadership Academy: Pre-service music education training for reaching non-traditional school music students.*)

McConville, Brendan
An App a Day Keeps Poor Grades Away: Perspectives on Current Mobile Applications for Music Instruction

Students, teachers, and administrators realize the growing power of mobile technology in education. The devices are in our students' (and our) hands, but how can we best utilize them? This panel will engage topics surrounding the integration of mobile applications with music instruction. The panelists were brought together from different specialty areas to ensure an assortment of perspectives and suggestions concerning the use of mobile applications. In general, the broad panel topic will filter into several sub-topics, including (1) practical applications for pedagogical and in-class use, (2) training tools for students outside of class, and (3) professional tools for performance, research, and composition. The panelists will also engage the audience to collectively explore diverse approaches to employing mobile technology and applications.

Menoche, Charles
What I Did Last Summer: Things I Learned by Becoming an (Online) Student

Inspired by Rebekah Nathan's book My First Year: What a Professor Learned by Becoming a Student this presenter enrolled in and completed several online music technology classes over the summer of 2012. Over the years, I have read numerous articles, attended multiple conference presentations, and participated in ongoing informal discussions about online courses, instruction, and how it compares to in-person instruction. To date, similar to many other faculty growing up prior to the availability of online courses, I had remained "on the fence" about online courses. Nathan's research and book clearly pointed out to me that the student experience today is different from my own. To fully understand and appreciate online instruction and learning, I felt that it was essential that I spend some time sitting in a

student's chair. This presentation will share my experiences and reflections on representative online music technology classes.

Meredith, Steve
"Songs of Sanctuary" - Using technology to integrate art forms

"Songs of Sanctuary" is a multimedia celebration of the human desires for beauty, shelter, ritual, achievement, and peace. In performance of the work (written by Karl Jenkins) a hybrid MIDI and live orchestration created by music theory students and faculty of the Horne School of Music is used. Integration of art forms takes place as instrumental and vocal music are blended together with dance, video and MIDI-controlled lighting to create a performance that is as engaging to the eye as it is to the ear.

Mitchell, Rachel
Chorale Composer: A tool for the 21st-century music learner

Chorale Composer is a free, interactive music theory instruction application that delivers automatic, real-time tonal music analysis. It supports specific instructional content such as assignments and quizzes, and enables users to explore musical compositions from the literature. The software currently features a database of the 371 harmonized chorales by Bach, which may be viewed with or without analytical details, such as figured bass or roman numeral labels, highlighted non-chord tones, voice-leading anomalies, and more. The goal of Chorale Composer is to provide students a technological tool for learning music theory. This software permits students to learn at their own pace and allows for instantaneous visual and aural feedback. For teachers, Chorale Composer allows for individualized assignment generation and automatic grading. By introducing this application to the greater music community, it is hoped that Chorale Composer will ultimately become a relevant and active tool for music schools across the country.

Molumby, Nicole
iPad Masterclass: Use of iPads in Aural Skills Class

During spring 2011, music majors enrolled in Ear Training II at Boise State University received iPads through an internal university, Mobile-Learning Scholars Grant. In the application process, faculty were asked to explain how the iPod/ iPad would positively impact teaching and learning in the classroom. The presenter will demonstrate how mobile technology assisted student learning in Ear Training II by bridging the gap between in class work and at home practice. The iPad gave students access to a virtual practice room where they were able to practice sight singing melodies or recorded homework exercises at any time and in any location. The presentation will discuss how different learning and teaching strategies, specific to Ear Training, were implemented using free apps on the iPad. As a result of this grant, the faculty member received funding for 45 iPads at 50% less retail.

Mondok, Bernadette
See Heuser, Frank (Faculty and Students as Partners in Co-designing an Undergraduate Music Technology Course)

Mroziak, Jordan
See Bowman, Judith (*Welcome to the Future: Educating Educators about Today's Technology*)

Phillips, Scott
Music Technology, Music Industry, and Music Business Programs: Curricular Comparisons and Considerations

Recent research identified over forty music technology bachelor degree programs accredited by NASM. Information about these programs, including dates of implementation, departmental affiliations, qualifications of instructors, similarities and differences between BA, BM, and BS degrees, and other factors have been identified. The proposed paper will expand the research by providing this kind of data about music technology programs that exist outside of NASM affiliation. This wider focus includes music industry, audio recording, and music business programs. Comparison between programs based in schools of music and programs housed in schools of business, computer science and engineering will be made. Also, differences in student entrance requirements will be considered.

Phillips, Scott
Technology Standards and Competencies in Undergraduate Music Instruction

In the 1990s technology use became a ubiquitous part of the educational landscape. In recognition of this reality, and with the encouragement of forward-thinking music educators, NASM included technology standards in their Handbook. NASM leaves interpretation and execution of these standards to individual institutions. It is undeniable that the incorporation of technology standards has had an important impact on the availability of music technology instruction for music majors at universities around the country.

In the 2010 Annual Meeting of the NASM, the organization's membership voted to remove technology standard VIII.B.5 from the NASM handbook. This change was met with concern and confusion by the music technology education community.

The panel of representatives from ATMI, CMS and NASM and will discuss recent research regarding the technological competencies and will consider the best way to encourage and ensure effective technology instruction for university music students.

Powell, Bryan
See Cremata, Radio (*The Best Things In Life Are Free - Synthesia, YouTube, & Beginning Piano Students – A Mixed Methods Investigation*)

Pryor, Brian
See Graf, Sharon (*Inventing Music Technology, Learning about Culture: An Innovative Global Approach to Learning Music Fundamentals*)

Purse, Lynn
Interactive Multimedia for Live Performance: ArKaos VJ Software

Slide shows have long served as a visual backdrop for live performance, ranging from overhead translation slides in opera productions to basic static images of title and lyrics in various live performances. A dynamic and interactive alternative for live multimedia presentation is available that is relatively inexpensive, demands minimal computer power, and is easy to program. ArKaos VJ software is adapted from its big brother program used to provide dynamic imagery for large venue rock and pop

music concerts. It offers a low-cost and easily programmed tool for creating dynamic and interactive graphics that can be independently manipulated or tied to a MIDI playback file.

Purse, Lynn
From the Studio to the Stage: Developing Digital Projects into Recital Presentations

Students who have created musical masterpieces in the studio often face problems translating those projects into live performances or stage presentations. Yet recital requirements in college music degree programs, especially in performance and composition, often require public presentation of a body of work. This presentation will discuss and illustrate with examples the ways in which students are guided into developing existing portfolio work for public presentation that goes beyond a lone laptop performing on stage.

Randles, Clint
Creative Performance Chamber Ensemble: Putting Ideas Into Practice

The purpose of this presentation will be to share an innovative course offering titled, "Creative Performance Chamber Ensemble." The course is currently being offered at a large tier one research institution in the southeast United States. Students compose, arrange, and improvise original music for live performance, utilizing iPads, MIDI controllers, and instruments common to multiple genres of music.

Randles, Clint
See Ruthman, Alex (*Is it the technology? Challenging technological determinism in music education*)

Rodriguez, Javier
***See* Fredenburg, Sean (*Post-Haste Reed Duo: Expanding Chamber Music through Electronics*)**

Rush, Toby
From Desktop Software to iPad Web Apps: Updating CAI for Aural Skills

In the last five years, the once-standard model of purchasing and installing educational music software has been joined by the concept of the web application — software available on any computer with an internet connection, often without cost. In this age of cloud computing, the venerable computer lab which provided access to ear training software is no longer seen as the paragon of convenience: now, students look for ways to hone their skills on their laptops, iPads and smartphones. Through the development and initial implementation of a mobile-browser-friendly online drilling program for aural skills, we can see some of the great strength and potential of this type of approach to interactive educational software, as well as the challenges inherent in its creation.

Ruthmann, Alex
Exploring the Neglected Musical Dimensions of Timbre and Space: A Window into the Creative Thinking of Producers and Engineers

The presenters of this workshop (a music teacher educator/researcher with a background in audio recording and a masters student enrolled in dual studies in music education and sound recording technology) will share exemplar projects developed during a two-year applied research study with pre-service music educators working with K-12 pupils in exploring the creative musical processes of

engineers and producers. This workshop will lead participants in two of the projects developed in their study:
• A short convergent audio mixing project where participants adjust volume and spatial parameters to match a recorded mix, experiencing a subset of the creative musical decision-making processes of an audio engineer.
• A short divergent audio remix project where participants negotiate timbre and space, experiencing a subset of the creative musical decision making processes of a producer.

Ruthmann, Alex
Is it the technology? Challenging technological determinism in music education

What can a piece of technology do or not do? Across music education, one often hears references to benefits, challenges and motivations attributed directly to various technologies. This panel session presents four critical perspectives that challenge deterministic thinking and dialogue about technology in music education, and offers possible pathways forward.

Presenter 1 utilizes the life of former Apple CEO Steve Jobs as a model for keeping humanity at the center of experience. Presenter 2 offers ideas that move educators from the prescriptive to the possible through situating technology in a cultural context. Presenter 3 describes a relational pedagogy that values human voice and considers the broader contexts in which music technologies should be considered. Presenter 4 concludes by sharing how technological determinism makes sense, offering avenues for counter-narratives.

Ryan, Thomas
See Gonzales, Cynthia (SmartMusic for the College-Level Aural Skills Curriculum)

Sayrs, Elizabeth
See Gonzales, Cynthia (SmartMusic for the College-Level Aural Skills Curriculum)

Schmunk, Rick
See McConville, Brendan (*An App a Day Keeps Poor Grades Away: Perspectives on Current Mobile Applications for Music Instruction*)

Shepard, Brian
Teaching Synthesis with MaxMSP

Because modern synthesizers (both hardware and software) are so complex, it is often difficult for students to grasp the concepts and structures that underlie the sound-making process. This demonstration will show how to peel back all the layers of the modern synthesizer by creating interactive examples with MaxMSP that allow the student to focus on a single element of the synthesis process to understand what that element contributes to the overall synthesized sound.

The demonstration will include downloadable, ready-built, and ready-to-use examples as well as instruction and information on ways to modify and build new interactive examples. In order to get the most from the presentation, attendees are encouraged to download MaxMSP from the Cycling ’74 website (http://cycling74.com/products/max/), and install it on their computer before the session begins. MaxMSP will run in demo mode, with no limitations, for 30 days.

Soto, Amanda
See Enloe, Lorie (*Got Apps?: Using iPads in the Music Classroom*)

Stulman, Timothy
Brahma Viharas for multiple saxophones and electronics

In Brahma Viharas for multiple saxophones and interactive electronics, I looked for a new medium of expression for a meditation that dates back 2,500 years. The Brahma Viharas, or Heavenly Abode, are four meditations proposed by the Buddha that are used to cultivate universal benevolence through Loving Kindness, Compassion, Equanimity, and Sharing Joy. The meditations are characterized by a vast, limitless expansion without boundaries. In order to represent these qualities, I recorded a good friend and colleague playing fragments from each of the movements, and then used granular synthesis to create ever-expanding layers of sound. The live performer triggers the entrance of these layers through use of an interactive playback engine in Max/MSP.

Summey, Dustin
See Fisher, Ryan (*Breaking Down Barriers to Online Course Delivery: Tools and Strategies for Online Music Instruction*)

Thibeault, Matthew
See Ruthman, Alex (*Is it the technology? Challenging technological determinism in music education*)

Tobias, Evan
Gaming music: Considering the potential of video games for music teaching and learning

The imagery and sounds of games such as Rock Band and Little Big Planet have captured the imaginations of popular media and the public. Discourse and debate surrounding these games, however, typically remain constrained within a dichotomy of virtual versus "real" performance, often excluding the role of music in video games. That video games include interactive, dynamic, and adaptive music is largely missing from this conversation as is the potential for video games for teaching and learning music. This presentation explores the rich potential for video games as interactive and immersive media and entry points for engaging with and thinking about music in new ways. It will touch on and expand beyond music-focused games to encompass the role that music plays in video games and provide cultural context for leveraging this popular form of multimedia in music classrooms.

Tobias, Evan
***See Ruthman Alex* (*Is it the technology? Challenging technological determinism in music education*)**

Uyeda, Kelsey
See Heuser, Frank, (*Faculty and Students as Partners in Co-designing an Undergraduate Music Technology Course*)

Wadsworth, Benjamin
"Online Music Theory Rudiments: A Report from Kennesaw State University"

Faculty and Students as Partners in Co-designing an Undergraduate Music Technology Course
Responding to growing gaps in students' readiness for its music theory curriculum, in the summer of 2011 Kennesaw State University introduced a new online placement test and remedial course in music

theory rudiments for incoming music majors. This presentation examines the goals and design of this course, which encourages substantial student-teacher interaction within the platform of Blackboard. To date, it seems that this course raised the passing rate in Theory I in the fall of 2011 from the fall of 2010. I close by suggesting possible areas for improvement.

Webster, Peter
See Phillips, Scott (*Technology Standards and Competencies in Undergraduate Music Instruction*)

Webster, Peter
Refining a National Survey on Music Technology Competencies: Active Ways to Engage Students

This session will review the results of a national survey on active ways that students demonstrate understanding of key music technology competencies across the college curriculum. The work is built on past research regarding agreed-upon competencies. Examples of how music units of various sizes and locations provide opportunities for students to actually show evidence of competence will be presented. Discussion about how these of these "best practices" might be encouraged by ATMI and NASM in coming years will be featured.

White, Phyllis
What's On Your Playlist? Negotiated Curricula in Two Online General Education Courses

Reflecting the ubiquitous presence of digital music in contemporary culture, rooted in a healthy respect for multiplicity, and with an objective of developing understanding of relationships in music, I conceived two online courses that would invite non-music majors to introduce to others the music of their own lives to engage musical and social thinking in increasingly complex ways. "What's On Your Playlist" asks: What's on your playlist? Where did you get it? How do you choose? Why do you choose? Who are you as a listener? Music introduced by class members becomes the basis for a negotiated curriculum as students literally talk about music with music by sharing brief edited clips from their own playlist interests in illustration of specific phenomena under study.
Likewise, in "Song and Songwriting", students analyze exemplars and then create and upload original musical material and songs to demonstrate their understanding of the ideas under consideration.

Williams, David A.
Silence is Golden: A Classroom Setup for Multiple Rock Bands

During this session, participants will examine a setup that allows multiple student groups, including rock bands and iPad ensembles, to function independently at the same time so that no group is disturbing any other group in the room, yet individual groups can also share their work with the class. The session will cover all the necessary equipment required and examples will be shown of student groups at work. Also included will be a discussion of the various roles taken on by students and teachers in such a setup.

Williams, David A.
A Resplendent Racket: A Non-Music Major iPad Performance Class

This session will be a review of a research study conducted with a class of non-music major undergraduates. The students in the class participated in small ensembles using only iPads as instruments. The class was conducted in an informal learning environment and was completely student centered as the students in the class made all the decisions in creating their own music and in

rehearsing it. Video of the class, both during rehearsal and performance will be shown and discussed, along with student and faculty feedback about the class. Conclusions will be drawn and implications for the music education profession will be discussed.

Williams, David A.
See McConville, Brendan (*An App a Day Keeps Poor Grades Away: Perspectives on Current Mobile Applications for Music Instruction*)

Williams, David B.
See Webster, Peter (*Refining a National Survey on Music Technology Competencies: Active Ways to Engage Students*)

Willams, David B.
See Phillips, Scott (*Technology Standards and Competencies in Undergraduate Music Instruction*)

Williams, David B.
See Dammers, Rick (*TI:ME Technology Leadership Academy: Pre-service music education training for reaching non-traditional school music students*)