ATMI 2007 Conference Abstracts

Thursday, 15 November

Using Recording Technology and Audio Streaming to Enhance Applied Teaching

Francesca Arnone--*West Virginia University*

8:30-9:00, *Idaho*

Recording technology has greatly improved in both quality and affordability. Using this important pedagogical tool in an applied setting has always been valued and can now be shared with students in a simple way via the web. This application provides them immediate evidence of their playing or singing in a format with which they are familiar and likely to use, while creating a way of maintaining a database to which a variety of performances may be added and collected over time. This demonstration walks through the process of digital audio recording, transferring the material, and uploading it to user-friendly software with optional password protection. Both audio and video recordings are easily transferable and used via this process. Student responses to this are documented regarding both its ease of use and how it has enabled them to increase their performance progress and practice habits.

Practical Applications for the Spectrogram in the Voice Studio: A Demonstration

Loraine Sims--*Louisiana State University*

8:30-9:00, Idaho

A voice teacher with a computer with a sound card and a microphone can enhance the teaching of singing in a visual way using the software called Voce Vista for spectral analysis of sounds. Much of singing instruction is abstract because the instrument is inside the body and cannot be seen or even directly controlled. While great teachers of singing have gotten along without technology of any kind for generations, there is no reason that it must continue in this way. Several basic principles of good vocal technique can easily be seen and explained with a spectrogram. All students, especially those who are visual learners, will quickly accept what the teacher is trying to explain when it is in a colorful display on a computer screen. The demonstration will include examples of the types of vocal technical problems that can be seen and addressed with the use of the spectrogram.

Podcasting Field Experiences for Music Education Students

Susan Thomas--*University of Rhode Island*

9:15–11:00, *Arizona*

In this presentation, I will describe a technological answer to the problem of providing enough field experience to pre-service music education students. Our music education curriculum is progressing toward supplementing field experience practicum placements with electronic observations via podcasting. I will include a brief overview of how the electronic observations project was planned and executed, as well as discuss the reactions of students and faculty to the project. Included in the description will be an overview of technology utilized, content and

format of podcasts as well as how students gain access to electronic observations and how instructors assess student understanding, and finally sample excerpts of podcasts

Podcasting Basics

J. Brian Post--*Humboldt State University*

David A. Williams--*University of South Florida*

9:15–11:00, *Arizona*

This hands-on presentation for beginning to intermediate podcast developers provides instruction on the creation of quick and easy podcasts for music education using GarageBand, ProfCast, Keynote and other peripheral Macintosh applications. Attendees will learn how to create and use the following different types of media for podcast production: • Text • Music Notation Graphics • Music/Audio files and MIDI files • Spoken Text/Audio files • Video Files Iinstruction is provided on how to compile the media in GarageBand and ProfCast. Audio files will be created and mixed down using GarageBand and other audio and video files will be imported from iTunes and mixed into the composite podcast timeline.

Let BACH Help You Make Interactive Hypermedia Presentations Online

Timothy A. Smith--*Northern Arizona University*

9:45–11:45**,** *Idaho*

The BinAural Collaborative Hypertext (B.A.C.H.) is a project funded by the Hinkle Charitable Foundation of New York. The purpose of the project is to provide tools for creating Shockwave-based interactive hypermedia online (without need for ancillary software, programming, web-page layout, or knowledge of html). BACH's goal is to help teachers to assemble an online hypermedia presentation in comparable time to making a handout. The instructor who can upload and download files from a server can create a hypermedia presentation by linking to existing web resources, mp3 files, gif or png screen dumps of scores, etc. BACH "marries" up these elements in an interactive format. BACH includes an authoring tool, player, and documentation, available online for non-profit educational use. Content specific information created by means of the BACH authoring tool is stored in a .txt file that remains the property of its creator.

Annotating Digital Scores and Audio for Pedagogy, Research, and the Creation of Multimedia Lessons

Brent Yorgason--*Marietta College*

9:45–11:45**,** *Idaho*

As more and more schools of music are digitizing and streaming audio from their libraries, providing students and faculty with access to more and more content, it is important to consider the question: What can you DO with this content? The [projectName] project at [UniversityName] University has invested a great deal of time and resources into the consideration of this question, resulting in the creation of a number of very useful tools and applications that allow music instructors and students to meaningfully interact with digital

content, both inside and outside of the classroom. In this presentation, I will demonstrate a number of these tools, including a set of music-specific score annotation tools, an application for creating interactive annotated timeline diagrams, and a multimedia lesson editor that integrates all of these tools into a single framework.

Using Adobe Acrobat Connect Professional to Create Online Media-Rich Interactive Courses in Music

Steven Kreinberg--*Temple University*

9:45–11:45**,** *Idaho*

Adobe Acrobat Connect Professional (formerly called Macromedia Breeze) allows music faculty to work with students interactively in a cross-platform, real-time, media-rich environment that requires only a high-speed Internet connection and the free Adobe Flash player that is installed on greater than 97% of Internet-connected computers worldwide. Thus, matriculated students as well as faculty-invited course guests do not have to purchase special software to interact with and use the program. Faculty can create virtual classrooms in real time where students and invited guests interact with the instructor and classmates much as they would in traditional classrooms. Additionally, faculty can create self-paced courses, simulations, meetings, and tutorials that are available online and on demand at times and durations specified by the instructor.

Automated Concert and Rehearsal Recording, Archiving and Distribution

David Michael Cottle--*University of Utah*

11:15–12:00**,** *Arizona*

Digital music production 24/7: This discussion will cover basic digital editing techniques using intuitive, inexpensive programs to produce incipits for class, CDs and MP3s of private instruction, audition CDs, and podcasts. We will also demonstrate our system for automated recording, where five spaces, three concert halls and two rehearsal halls, are recorded 24 hours a day, 7 days a week, greatly facilitating compilation of audition CDs, regular concerts and convocations, and reviewing rehearsals in preparation for concerts. recorded 24 hours a day, 7 days a week, greatly facilitating compilation of audition CDs, regular concerts and convocations, and reviewing rehearsals in preparation for concerts.

Transcending Geography: Utilizing the Yamaha Disklavier, iChat and remote learning possibilities in Piano Instruction and Teacher Training

Jennifer Snow--*University of California Los Angeles*

George F. Litterst--*Private Piano Teacher and Yamaha Consultant*

1:00–2:30pm**,** *Idaho*

An interactive demonstration which highlights the use of video conferencing and digital piano remote learning technology as a creative and innovative approach to music instruction. The demonstration will involve a live Internet connection and cross-country teaching demonstration.

Can You Hear Me Now?: An Exploration of Online Trumpet Lessons

Rick Dammers--*Rowan University*

Bryan Appleby-Wineberg--*Rowan University*

1:00–2:30pm**,** *Idaho*

The increasing availability of internet-based video conferencing is opening new opportunities for music instruction. Through the experiences of an eighth grade student and her online trumpet teacher, the possibilities and limitations of this environment are explored. In this session, a portion of an online lesson will be recreated, and the themes and issues that arose over the three month study period will be discussed. Implications for further research and future practice will also be addressed.

Sibelius Rhythm Section and Percussion Notation

Thomas Rudolph--*University of the Arts*

1:00–2:00pm, *Arizona*

In this hands-on workshop you will transform Sibelius scores into rhythm section notation including slashes, chords, and drum/percussion parts. Editing drum maps will be addressed. This workshop is an excerpt from the Berklee Music online course "Music Notation Using Sibelius."

musicXML: The Lingua Franca for Sharing Music Notation Files?

David Brian Williams--*Illinois State University, Emeritus*

2:15–3:45pm**,** *Arizona*

The musicXML file format offers universal sharing of music notation. This session will offer simplified descriptions of XML, XML projects for music, and the musicXML/Dolet plug-in for Finale and Sibelius. Translation of a variety of scores will be demonstrated along with an analysis of the results.

Roundup at the OCR Corral: MusicXML, Music Scanning and the Dictionary of North American Hymnology

Bill Clemmons--*Point Loma Nazarene University*

2:15–3:45pm**,** *Arizona*

The Dictionary of North American Hymnology is a large index of hymns and hymnals published in North America over the past 350 years. The index is moving from its current version as a CD-ROM to a web-based format, and in the process adding images and full text and music search utilities to the website. These tools were created through an extensive use of musical optical character recognition (music OCR) software and the results stored as MusicXML, a recently developed format for storing musical data. Four software packages were extensively tested with a variety of scanners, resolutions and image formats, and the results collated into tabular form. These results were then provided to the manufacturers for their comments. This

presentation provides the results of the study along with the manufacturer's comments, and guidelines for anyone wishing to pursue music scanning for a similar project.

Collaborative Learning Online: Does it Really Work? Research Perspectives in Teaching and Learning Online

Melissa McCabe--*University of Missouri-Kansas City*

2:45–4:00pm, *Idaho*

Collaboration forms the foundation of an online learning community; it brings students together to support the learning of each member of the group while promoting creativity and critical thinking. This session will present interactive activities that can be used in many different areas of online music instruction. Research examining the affects of collaborative teaching strategies on student achievement and perceived satisfaction will be presented. This session will also focus on developing teaching strategies that utilize communication technologies (both asynchronous and synchronous) that can be used to create a collaborative and highly interactive learning environment in the online setting.

Cognitive, Affective And Psychomotor Learning Through Online Music Instruction

Cyrus Ginwala--*San Francisco State University*

Wendell Hanna--*San Francisco State University*

2:45–4:00pm, *Idaho*

In this presentation we will demonstrate how online instruction in music classes can combine cognitive, psychomotor and affective experiences that provide novice music students with meaningful contextual learning in music. We will discuss how two online music education classesÑa large and small section--utilize online content, hands-on laboratory instruction, live performance experiences, and personal reflective practices. In addition, we will show how online instruction content is linked to cognitive, psychomotor and affective goals for each class. Examples include learning through the personal performance of music, understanding the intricacies of psychomotor application, and the peer assessment and critique of musical performances.

Creating Your Digital Portfolio

Daniel Gonko--Cullowhee, North Carolina

Robert C. Johnson--Western Carolina University

4:00–5:00pm, *Arizona*

In this hands-on session, Apple's DVD Studio Pro software will be used in conjunction with the iLife package to create a digital portfolio. The primary focus will be the development of materials in a digital format to make your portfolio more accessible to peers and potential employers. We will also provide suggestions for sharing this knowledge with your students so they can begin creating their own portfolios as they progress through their educational careers. This presentation will include simple photo and audio editing, document manipulation,

importing and assigning media, and the burning/duplicating process.

ELECTRONIC POSTER **Computer-Assisted Instruction in a General Music Classroom with Only One Computer**

Don Bowyer--University of Alabama in Huntsville

4:00–5:00pm, *Idaho*

Many general music teachers say they would like to use educational software, but "Our computer is lab is not available for music and I only have one computer in my classroom." While a full computer lab for music might be nice, there are educational ways to use Computer-Assisted Instruction in a classroom with a single computer. This presentation will demonstrate effective lesson plans using three readily-available educational music software titles with one computer, a data projector or television, and a sound system. The presentation will also include a discussion of required hardware and cabling.

ELECTRONIC POSTER **Hearing Atonal Context: An Integrated Approach Using Interacitve Multimedia and Web-Based Dictation Drills**

Aleck Brinkman--Temple University

4:00–5:00pm, *Idaho*

I will present a systematic approach for teaching college students to hear/sing 20th century music. We do this in one semester, with students who are already fluent with tonal music using moveable DO solfege. Although I incorporate lots of rhythmic exercises in the curriculum, I will concentrate on the progression of exercises for learning 20th century pitch materials. The approach emphasizes hearing intervals--first isolated, and then in the context of various scales and pitch class sets. We sing with pitch class integers, relating the interval size in half steps to the numeric differences between the pc integers. I will also demonstrate a series of interactive web-based programs that I have developed to support this curriculum. These were written using Macromedia (now Adobe) Director, with Sequence Xtra to control MIDI devices or Quicktime. All programs are online for use of our students and are also availble to the public.

ELECTRONIC POSTER **Developing and Using CAI Applications to Teach Species Counterpoint**

Leon W. Couch III--*Converse College*

4:00–5:00pm, *Idaho*

Today, many undergraduate theory textbooks incorporate rudimentary species counterpoint. This pedagogy intended for mid- and large-sized classrooms was designed for online delivery in order to increase the efficiency of student learning while simultaneously decreasing instructorÕs time input. Rather than relying solely on traditional master-student, trial-and-error models, this approach employs highly organized sequences of handouts, sample solutions, grading rubrics, and quizzes. With visual & aural CAI at initial stages, students progress at their own pace and master required competencies. Student responses provide real-time data on the effectiveness of instruction. Because instructors spend less time at routine drill, they devote more class time to

artistic and stylistic issues, as well as demonstrating perceptual concepts. I.e., students appreciate the methodical presentation and getting to the ÒmusicalÓ part of the topic faster. In addition to showcasing the pedagogy behind this electronic resource, I will share experiences at adapting music-theory handouts into truly efficient learning tools.

ELECTRONIC POSTER **How to Design A Digital Portfolio for A Music Education Program**

Cheryl Frazes Hill--*Chicago College of Performing Arts at Roosevelt University*

4:00–5:00pm, *Idaho*

In recent years, there has been a tremendous amount of literature surrounding educational portfolios including digital portfolios. The history and evolution of the educational portfolio will be explained. From this discussion, a design well suited for a college music education program will be demonstrated. Elements of three portfolio types, including Learning, Assessment, and Showcase models will be utilized to help create this model The presentation will include guidelines for students to collect, select, and organize materials which demonstrate knowledge, skills, and dispositions they have attained throughout their course of study. Construction of artifacts as they connect to standards will also be demonstrated. Checklists, rubrics and schedules for assessment including collaboration amongst students and faculty along with digital resources will also be displayed. Samples of student digital portfolios will be shown.

ELECTRONIC POSTER **The META-EVI--New Performance Paths with an Electronic Wind Controller**

Tomas Henriques--*University of Lisbon*, *Portugal*

4:00–5:00pm, *Idaho*

The META-EVI is a project in electronic instrument building and instrument enhancement whose main objective is to achieve a performance tool of greater and wider expressive and technical capabilities. The META-EVI is a heavily modified STEINER MIDI EVI, a brass style Ôelectric valve instrumentÕ (EVI), to which was added a whole new set of controllers based on sensor technologies. These clearly succeed at stretching the expressiveness and the range of musical gestures possible on the original instrument, allowing the musician to have a more complete, more complex and far reaching control of a great variety of meaningful musical parameters.

ELECTRONIC POSTER **The VoxBook Project: Multi-Media, Multi-Campus, Collaborative Database for Solo Voice**

Margaret Kennedy-Dygas--*Hope College*

4:00–5:00pm, *Idaho*

The VoxBook Project is a collaborative database project begun in 2003. Several colleges are members of the project, with one campus hosting the project on its server, and providing primary support for the development of the project. The goal of the project is to assemble and present via web pages a broad range of classical solo vocal recordings with related scores, texts/translations,

commentaries, and bios of performers, composers, and poets/librettists. The recordings are digitized from archived concerts presented at the member colleges, or donated by performers interested in the project, or digitized from older vinyl records held by the member colleges. This presentation will explore the challenges and benefits of this project, along with the enhancement of student learning provided by opportunities for students to research and prepare materials, as well as using the VoxBook as a textbook in studio and classroom situations.

ELECTRONIC POSTER **Atonal Dictation: Extending MacGamut**

Brian Kershner--*Central Connecticut State University*

4:00–5:00pm, *Idaho*

The twentieth century has come and gone and the vast majority of its music exists in the new standard repertory. A large portion of this music functions outside of the tonal system, and yet teaching techniques in the areas of ear-training, sight-singing and dictation skills do little to prepare the musicians of the future to deal adequately with its challenges or to fully appreciate its unique aesthetic value.

It is the purpose of this paper to describe a recent project which goes beyond singing and performance skills, and develops skills in dictation with atonal music. The process is explained from its exception to its implementation. The popular software, MacGamut is the platform used to enter the examples. As the educators of young musicians we are obligated to take a fresh look at our teaching methods and goals. They will be the caretakers of the music of our time, and we must give them the tools to perform it musically and to carry its traditions on to their students, lest an entire corpus of repertoire die a slow, painful death.

ELECTRONIC POSTER **Building better Support for Student Success when Using Technology in Music History Courses**

Stanley C. Pelkey II--*Western Michigan University*

Kenneth Smith--*Western Michigan University*

4:00–5:00pm, *Idaho*

Students in three music history courses were asked to complete research and present their findings in the form of a PowerPoint presentation that included a listening guide and a non-linear presentation of multimedia materials. After completing the presentations, students were given surveys to discern their attitude toward the projects and their strategies for completing the projects. Results revealed that students lacked the necessary software skills to complete the assignments and that students approached the projects in the same linear manner as a paper. In response to these findings, instructional materials were provided to teach students the needed software skills and to demonstrate the use of menus and hyperlinks to present material in a non-linear manner. Findings from the third semester reveal the effectiveness of the tutorials and provide further direction for developing a scaffold of support for the continued and increased inclusion of technology into future music history courses.

ELECTRONIC POSTER **Creating a Podcast of Enhanced Episodes**

Robert Willey--*University of Louisiana at Lafayette*

4:00–5:00pm, *Idaho*

A variety of assets can be combined in an enhanced podcast episode, including video, music, narration, graphics, text, and links to web pages. In this workshop participants will see how materials are prepared using iMovie and iTunes, and then assemble those assets themselves to create two episodes in GarageBand. These episodes will be moved into iWeb to create a podcast, and then tested with the Safari browser.

PERFORMANCE **Dreams and Disasters: Natural or Not**

Marie Grudzien--*Salt Lake City UT*

4:00–5:00pm, *Idaho*

Dreams and Disasters: Natural or Not is a multi-media electro-acoustic composition scored for vocal quartet, string trio, percussion, electronics, projected text and theater. Complex realities of dreams/nightmares, and their counterpart in a modern world are explored, along with issues of reality/illusion, conflict, displacement/identity, and the integration (or not) of positive and negative aspects of technology. What universal components can it contain Ð in an effort to balance the universal problems it can (and does) create? Phonemes from world languages interweave with the use of generated and manipulated sounds (from programs such as MAX and Logic). Analyzed human voice samples aid in the creation of generated sound and recorded sounds (mainly human) are manipulated and re-invented, at times mixing with white noise. Live acoustic instruments and voices play together with electronics at points. Throughout the piece, there are links provided between man and technology. Voices from people of different races, countries, and genders, have been recorded, in an attempt to employ technology as a transcendent medium for all.

PERFORMANCE **Fandango**

Rodney Oakes--*Los Angeles Harbor College*

4:00–5:00pm, *Idaho*

Fandango is a work created for the MIDI trombone. The electronic accompaniment was created with the software programs MetaSynth and Digital Performer. MetaSynth allows for the creation of sounds using digital images. The images for Fandango were created with pictures of Spain. The live performance consists of a trombone utilizing a pitch-to-MIDI converter controlling a software synthesizer, a MOTU MACH 4.

PERFORMANCE **The Plack Bage**

Alan Lechusza--

4:00–5:00pm, *Idaho*

Plack Bage is an ongoing series for multi-instrumentalist which involves both acoustic and electronic instruments noting how they balance and negotiate the spaces between composition and improvisation. A truly interactive work, The Plack Bage can never reveal the same

realization with any given performance.

PERFORMANCE **Video Made the Radio Star**

Christopher Barrick--*University of Nebraska-Lincoln*

4:00–5:00pm, *Idaho*

This presentation includes a multimedia performance of Jacob Ter Veldhuis's Billie, a work for alto saxophone and soundtrack. Ter Veldhuis's piece combines the sound of the saxophone with the voice of jazz singer Billie Holiday. The composer utilizes phrases from interviews with Holiday as compositional motives. The video, compiled by the presenter, accompanies the music with a chronology of Billie Holiday's exciting life as a jazz vocalist.

PERFORMANCE **"Strength" for Video, Saxophone, and Live Audio Processing**

Julia Nolan--*University of British Columbia*

Robert Pritchard--*University of British Columbia*

4:00–5:00pm, *Idaho*

Strength, for alto saxophone, sound files, and interactive video/audio processing (Max/MSP/Jitter). Strength is a convergence of the metallic and the human, the durable and the impermanent, combining audio and visual domains. The saxophoneÕs processed sound reflects upon, joins, and contrasts the processing of male body images and the sounds of machinery. The workÕs three-part form can be experienced as binary contrasts such as life/death or love/loss, or ternary structures such as Approach, Engagement, and Reflection, or Belief, Experience, and Transformation. Strength was premiered at the 2006 World Saxophone Congress in Ljubljana, Slovenia.

Friday, 16 November

Facilitating Rhythm: An Interactive Tool for Practice and Composition

Jay Alan Jackson--*Rochester Institute of Technology*

Andy Jaffe--*Williams College*

This talk will demonstrate an interactive multimedia application developed by the authors to facilitate composing and practicing with polymetric and other intricate rhythms. The application's functionality includes novel methods for constructing patterns and exploring variations of them, including a highly versatile spreadsheet type input mode representative of a player-piano roll but that can be expanded and contracted to accommodate changing subdivisions of time. The application can utilize external MIDI devices, as well as export patterns to files in either standard MIDI or MusicXML format. Several interesting examples that have been produced from the use of this application will be presented to show its capabilities for creating interesting musical sequences and generating challenging practice exercises

Experiencing Rhythm through Rap: Rap composition and recording as a tool for developing and assessing rhythmic understanding.

Alan Kaschub: University of Southern Maine School of Music

60 College freshmen are given a project during the second week of classes: Compose, notate and record a Rap composition. This project teaches the students about the challenges of notating rhythms, joining text with rhythm and recording themselves in multiple tracks. This project also teaches the instructor that college freshmen are more adaptable, creative and profoundly fluent with rhythm than anyone could have guessed.

Podcasting Prowess for Music Educators

Raymond Riley, Alma College

Podcasting is a method for distributing audio or video files over the Internet for listening and viewing on personal computers or mobile devices (hence "pod" for iPod). Podcasting differs from normal downloads or streaming media delivery by utilizing a subscription "feed" protocol that makes it possible to automatically update content and deliver new media "episodes". The podcasting studio in GarageBand 3 presents a comprehensive yet simple set of tools for creating and encoding audio podcasts as well as "enhanced" podcasts that include images and chapters. This hands-on workshop will lead participants through the steps of recording, editing, and publishing podcasts using GarageBand and iWeb (included with iLife 06). In addition, some alternative methods for publishing podcasts will be explored.

Basic Techniques of Scoring To Picture Using the Digital Audio/MIDI Sequencer and Quicktime Movies

Richard Sussman - Manhattan School of Music

The focus of this presentation is to demonstrate a simple and straightforward method for acquiring the technical skills necessary for "Scoring to Picture" , while maintaining your perspective in terms of the creative process. Specific attention will be given to the process of "hitting" visual cues in a musical manner, using Markers, Tempo Changes, and other software functions. Emphasis will also be given to some of the unique musical considerations necessary for a successful score. Examples of successful student projects will be shown.

Using Pictures to Compose: Gesture-oriented Pitch Mapping Techniques in Hyperupic

Bonnie Miksch, Portland State University

Inspired by the UPIC system for realizing sounds from graphic tablets envisioned by Xenakis, Christopher PenroseÕs application Hyperupic provides a flexible and accessible environment for gesture-oriented electroacoustic composition. While there are many other computer music applications which influence users away from note-oriented models of composition, these applications do not tend to allow the composer to control frequency parameters with a high level of specificity. It is precisely this union of pitch mapping and gesture-oriented capabilities which make Hyperupic a compelling application for computer music composition. Following an overview of functionality, I will demonstrate various approaches to pitch mapping, using an assortment of digital images and sound samples to help create large, orchestral sounds with a variety of precise frequency relationships. I will close with excerpts from two electroacoustic compositions which were built in large part from sounds created in Hyperupic.

Teaching Tuning Theory with SuperCollider 3

Reginald Bain, University of South Carolina

SuperCollider 3 (SC3) is a real-time audio synthesis programming language and environment for algorithmic composition by James McCartney. A former commercial product for Mac only, it is now a free program that is being developed by the open source community under a GNU General Public License. A beta version for Windows has recently been released under the name Psycollider, making it a much more attractive tool for educators. This paper will begin with a brief introduction to the SC3 application, which will be followed by a step-by-step demonstration of how to use SC3 to create a simple interactive tuning theory application with explanatory text and other media elements. The paper will conclude with a demonstration of some of the instructional materials for tuning theory that I have recently created with SC3. These materials are all organized around a single theme: the harmonic series.

Technology Reforming Music Teaching through Comprehensive Musicianship

Kimberly C. Walls, Robert Lyda, Jennifer Canfield, & Claire Burns, Auburn University

This session demonstrates how a variety of technologies was utilized to promote comprehensive musicianship in school choirs, bands, and general music. A team of course developers created and delivered a graduate-level distance learning course in comprehensive musicianship that enrolled in-service school band directors, general music teachers, and choir directors. A distance learning practicum course required the in-service teachers to develop, implement, and evaluate comprehensive musicianship units that included multimedia materials in their school music settings. In this session, the course developers will show how technologies were used in course delivery and in support of the practicum. Examples of the media that the in-service teachers created and tested will be shown, along with evaluation of the 3-semester long project (Spring 2007, Summer 2007, Spring 2008). Media shown will include web sites, multimedia listening guides, and digital video evaluations.

Technology-enhanced Music Learning and Teaching: i-Maestro Framework and Gesture Support for the Violin Family

Kia Ng, Bee Ong, Oliver Larkin, Thijs Koerselman (ICSRiM - University of Leeds)

The paper presents an European collaborative project to develop interactive multimedia environments for technology enhanced music education. The project explores novel solutions for music training in both theory and performance, building on recent innovations resulting from the development of computer and information technologies, by exploiting new pedagogical paradigms with cooperative and interactive self-learning environments, gesture interfaces, and augmented instruments. This paper discusses the general context along with the background and current developments of the project, together with an overview of the framework and exploration of 3D motion data for posture and gesture support to musical instrument learning and playing.

Hands-on Evaluation of Virtual Instruments

Thomas Rudolph (University of the Arts)

This hands-on session explores in depth a wide variety of software synthesizers for Mac and Windows, including the Korg Legacy Collection, Ultimate Sound Bank PlugSound Pro, Propellerhead Reason, and more. Participants will play and evaluate instruments, and share assessments with others.

Digital Video Basics for Musicians: Exploring Final Cut Pro

Dr. Bruce H. Frazier-Western Carolina University

A hands-on, introductory session for musicians and media composers demonstrating techniques for blending audio with digital video using Apple's Final Cut Pro digital video production software. A sample project will illustrate media capture, importing, editing, adding transitions, applying plug ins, mixing, synchronizing, and exporting audio with video for the DVD and the web.

Active versus Passive Learning: On the Effectiveness of Student Tasks in the Online Teaching of Music Fundamentals

Nico SchŸler, Elizabeth Lee (Texas State University)

While active learning (higher-level task) can be expressed in verbs such as Òconstructing,Ó passive learning (lower-level task) can be expressed in verbs such as Òidentifying.Ó Based on collected experimental data, this presentation shows that students with less training can complete the lower-level task better than the higher-level task and that the student success in completing both tasks is close to identical when the subject matter has been thoroughly introduced and practiced. Conclusions for online placement tests, the instructional course design, and the design of final proficiency exams will be discussed and examples will be provided. Most importantly, this presentation will demonstrate such a design in a NEW fundamentals online course. While most online tools use lower-level tasks only (because they are easier to program), the ultimate goal should be to proceed from lower-level to higher-level tasks. Numerous examples from the new online course will be given.

Teenaged girls and technology-based composition: Outreach, products, and reflections

Betty Anne Younker and Mary Simoni (University of Michigan)

The problem, as formulated for this study, is three-fold: (1) the minority of females in the field of music technology as made evident in the literature, (2) the minority of students who participate in school-based music programs at the high school level, and (3) related to the second, the lack of variance in the kinds of music making for students in high schools.

The purpose of this study was to (1) design, develop, deliver, and evaluate co-curricular (non-credit) learning modules; and (2) investigate teenage girlsÕ attitudes towards technology-based composition.

During the paper presentation, the literature that reveals the gap between male and femaleÕs participation in technology-based activities will be reviewed, four modules that include technology-based music learning will be shared and the experiences of the girlsÕ experiences as

reflected in their verbal response to questions posed in a semi-structured interview will be presented.

On Using Video Direction as an Application of the Study of Music Theory

Robert Willey (University of Louisiana at Lafayette)

Involving music theory classes in the video recording of concerts provides opportunities to approach analysis from a new perspective. The process of translating scores into instructions for camera operators and editors invites students to apply theoretical knowledge to a new field, and involves experiences and intuitions from other domains that are not traditionally engaged. A methodology for making and editing multi-camera video recordings is presented, incorporating comments on philosophy, technique, and style obtained from interviews with professional directors.

Beyond Paper and Pencil with "Exposition" - An Online, Customizable Assessment Tool for Music Theory

The presentation will guide participants through the unique range of customizable possibilities in the online music theory skills assessment software "Exposition." The server-based program includes 12 categories of both written and aural theory components including notes, intervals, rhythm, error detection, dictation, triads, cadences, and Roman numeral analysis. Question formats include fill-in-the-blank, multiple choice, drag-and-drop notation, inserting pitch/rhythmic options, pull down menus, and listening/response questions. The online server based application creates questions in every possible key resulting in an infinite number of possibilities. The lead programmer will provide an introduction to the programming, graphic design, and database structure. The software was designed with mySQL, JAVA, Google Web Tools, The Hibernate Interface, Sibelius, Photoshop, .PDF and .mp3 files. We will close with results from beta testing at New England Conservatory, the Ohio State University, and Grand Junction High School (Colorado), and a discussion of possibilities for integration into the classroom.

Creating Interactive Listening Guides: A Workshop with iMovie and Flash

Cynthia I. Gonzales, Texas State University-San Marcos

This hands-on workshop will teach music teachers how to create interactive listening guides using iMovie and Flash. Designed for the novice computer user, the training session will begin with a presentation of two similar listening guides (one created with iMovie, the other with Flash) that include synchronized text, graphics, and audio. The iMovie version (exported as a QuickTime movie) will demonstrate the ease with which instructive listening guides can be created. The Flash version will also include basic interactivity, giving the user the ability to make choices and get feedback on those choices. The main part of the session will walk participants through the step-by-step process of how to create these projects in both iMovie and Flash. This juxtaposed comparison will provide participants with the overall limitations and challenges of these two flexible programs.

ELECTRONIC POSTER: Free internet applications that support fundamental skills in lower-level music theory and ear training classes

Shane Anderson, Texas A&M University at Corpus Christi

As an instructor of freshman and sophomore music theory and ear training, I have spent many hours searching the internet for free, web-based programs that my students can use for practicing music fundamentals. However, many excellent sites do not meet my studentsÕ needs, because they do not ask the students to solve a particular problem the same way I would like my students to solve it. For example, I may want my students to practice building seventh chords, given the roman numeral and a key signature. While there are many websites that offer practice building seventh chords, only a few are associated with a particular key. Most simply give a starting note and chord quality, but not a roman numeral. The following is a list of active websites that offer practice in music fundamentals: the websites are classified according to how the student interacts with the material.

ELECTRONIC POSTER: CocoaCollider

Ryan Brown (University of Washington)

CocoaCollider is an Objective-C bridge for the SuperCollider audio programming environment. It bridges the best environment in the world for building user interfaces with the best environment for doing sound synthesis. With it, SuperCollider gains access to the wealth of tools Apple has made available for free, such as Quartz Composer, QuickTime and Interface Builder. The project is licensed under the GPL and has been in active development for over a year.

ELECTRONIC POSTER: Survey of Commercial Musical Software for the Creation of Music

Sanford Hinderlie (Loyola University New Orleans)

The proliferation of music software, especially in virtual synthesis and effect plug-ins has created an almost overwhelming amount of choice. This survey of commercial musical software for the creation of music is not only a listing of software, but provides a logical order and placement into categories of types of software. A brief background about each category is included, some with the history about the category. All compositional genres (pop, art form, and music for video) are listed.

The categories include: Sequencing/Recording/Production, Groove and Loop-based Programs, Post Production Music, Plug-in Effects, Virtual Synthesizers, Samplers and Libraries, Synthesis Software, Libraries, Notation, Synthesizer Editor/Librarian, and Editor/Mastering are the categories.

This survey is by no means a complete listing of all software. It consists mostly of higher end professional products that can be purchased at retail music stores or at the manufacturers web sites, and some items are shareware available on the Internet.

ELECTRONIC POSTER: Piano Instruction and Performance without Boundaries: Real-time Linking of Acoustic Pianos over the Internet is Now a Reality

George F. Litterst (Private Piano Teacher, Yamaha Consultant)

This session will demonstrate that real-time, long distance piano performance and instruction are no longer hypothetical concepts. Using off-the-shelf technologies, you can now (1) perform on acoustic pianos in several venues simultaneously, (2) conduct master classes with participants in multiple locations, and (3) teach lessons over the Internet. Join us as we connect the MIDI output of two Disklavier pianos over the Internet and visually coordinate the MIDI transmission and subsequent playback with video conferencing software.

ELECTRONIC POSTER: Virtual Ensembles for Chamber Music and Concerto Performance in the Piano Studio: The Use of Virtual Instruments and Automated-Synchronization Software

David R. Montano (University of Denver)

Pieces for chamber ensembles and concertos for solo instruments with orchestra represent vital parts of the Western art-music repertories of many instruments, including keyboards (harpsichord, fortepiano, and pianoforte). It is arguable that, in large part because of the daunting logistical challenges involved for individual student and professional instrumentalists in obtaining or providing sufficient opportunities to practice playing such ensemble pieces with other players, those parts of the repertories have received less attention than they deserve in pre-college and college music performance curricula as well as in professional performance.

This electronic poster presentation is designed specifically to show how a Mac Pro computer by Apple, and other currently available electronic technology, can be used within a piano studio to provide students with especially high-quality opportunities for the practice of the piano parts of chamber-music works and concertos, with virtual performers, in lieu of other human performers, playing the other parts.

ELECTRONIC POSTER: PoŽme Electronique In Music Appreciation Textbooks: A Case Study of Electronic Music Reception

Joo Won Park (University of Florida)

This presentation evaluates studentsÕ reception of technology-based compositions by analyzing the sections devoted to electronic music in leading music appreciation textbooks. The common, and often only, example used in many of these books is Edgard Var❹seÕs PoŽme Electronique. Unfortunately, the readers are often given incomplete and misleading descriptions of the work, resulting in outdated images of technology-based compositions. The presentation concludes with possible solutions to this dilemma with a proposal for updated listening guidelines and repertoires.

ELECTRONIC POSTER: Learn How College Students in America Teach Music to Children in Mexico Through Video-Conferencing Technology

Patricia Riley - The University of Vermont

This session demonstrates and provides information regarding how pre-service teachers at a university in the United States teach music to students at a residential elementary school for underprivileged children in Puebla, Mexico through video conferencing using the Internet.

Videos will be shown, and use of the technology will be explained and demonstrated. Participants will also brainstorm ideas for using this exciting technology in their own teaching.

ELECTRONIC POSTER: Piano Wonderland: A Fun Interactive Educational Website for Beginning Piano Students

Megan Walsh, Diana Limeres (University of Miami)

Piano Wonderland is a website dedicated to beginning piano students. The site is meant to compliment and enhance a studentÕs weekly piano lesson. Piano Wonderland is a project inspired by students of a Piano Preparatory Program at a major university. The creators have taught in the program for many years and have watched how the internet has increasingly been a major attraction to the young students. The creators are working to create a more pedagogically sound website that corresponds to a studentÕs weekly piano lessons. To the creatorsÕ knowledge, Piano Wonderland is unique in that it follows lesson plans mirroring current beginning piano method books.

The website is divided into a variety of sections that progress gradually covering topics corresponding to the studentÕs piano lessons. The sections include: Music Theory, Music Appreciation, Rhythm, Composition and Practice and Performance Tips. In order to match units on the website with lessons being taught in piano classes, the creators have reviewed current piano method books and incorporated the topics into the website.

ELECTRONIC POSTER: Electronic Realizations of Conlon Nancarrow's Studies for Player Piano

Robert Willey (University of Louisiana at Lafayette)

Conlon Nancarrow devoted nearly all of his composing to the creation of a series of Studies for Player Piano, an instrument chosen in part for its ability to precisely perform rhythmically intricate music. While it was capable of super-human glissandi and arpeggios and complex tempo relationships, the composer wished at times that it had more timbral resources. Ten years after the composerÕs passing, a series of electronic realizations have been made combining electronic synthesis with DVDÕs visual display and surround sound capabilities, making possible new understanding and appreciation of his work.

Saturday, 19 November

Implementation of a University Music Technology Distance Learning Course

Richard Repp--

3:45–5:00**,** *Idaho*

A university-level Introduction to Music Technology course was converted from a traditional lecture to a distance-learning format. Student's test scores, final grades, answers to questionnaires, instructor feedback, and responses to University course evaluations were all

analyzed to evaluate the procedures. An ANOVA test showed that members of the live lecture group scored significantly higher on course averages than the all podcast group ($F=3.6$, $df=2$, $p<.034$). Further tests showed that the difference was because of improved test scores ($F=7.7$, $df=2$, $p<.001$), with no differences in scores on projects. This study does NOT prove that distance learning is inferior to classroom instructions; it does prove that simply recording class lectures does not provide an adequate learning experience.

"Social Computing" and Music Teaching/Learning: Roots, Realities, and Reasoned Speculation

Peter Webster--*Northwestern University*

David Brian Williams--*Illinois State University Emeritus*

This session will explore the past, present and future of the "social computing" movement and its implications for music teaching and learning. We will explore just what social computing is, how it is rooted in the way young people think about technology, and what linkages there might be between this phenomenon and music education in the broadest sense. We will define terms and ideas about social computing and offer perspective on the traditions in our field that lead up to today. We will provide perspectives and examples from in and outside of music. We will end our presentation with some audience participation via the Turning Point clickers and present our collective speculations about the future.