chriscolatos.com | 1510 326 8325 | chris@chriscolatos.com

## Curriculum Vitae

#### **Profile**

Accomplished interdisciplinary Artist, Sonologist, strategic Educational Leader and Educator with extensive Research, Instructional Design, Executive and Creative Direction experience. Expertise in game audio, AR/VR, post, studio practice, traditional and experimental composition, production, installation, interactivity and intermedia art. A dedicated practitioner and educator with acute focus on student success, efficient and effective project actualization, collaboration, and fostering high morale. Sensitivity and active attention to diversity and inclusivity. Currently, volunteer with After-School All-Stars, providing comprehensive music production after-school programs in underrepresented communities that keep children safe and help them achieve in school and life.

A passionate advocate for exploratory approaches to sound art, and developing innovative technologies to enable new forms of creativity and expression. Currently, Audio Lead on two multiplatform/VR games, sound design, composition, VO, adaptivity and implementation for 2018 release. Chris is the Academic Department Chair of the Sound Arts, Interactive Audio, and Audio baccalaureate programs, and the North America Chair of Instructional Design at SAE/Expression College, the Executive and Creative Director of THE STUDI/O, an Apple Certified Master Trainer, and Fellow of the Higher Education Academy – the UK Professional Standards Framework for teaching and learning in higher education. Chris completed a dissertation at The University of Edinburgh, researching the applications and efficacy of multimedia in interactive augmented reality environments.

For years, Chris worked closely with one of Billboard Magazine's Top Ten Producers of All Time, 57 #1 Hits, multi-Grammy, Emmy & multi-Platinum Producer & Artist Narada Michael Walden at Tarpan Studios. As a Producer, Engineer, Composer, Arranger, Music Supervisor, Sound Designer, Programmer and Performer, Chris has worked with artists and companies including Apple, Google, Legends The Game, Robot Invader, Eagre Games, LeapFrog, PETA, KSFR 90.7 FM, Twisted Tools, Sting, Elton John, James Taylor, Carole King, Billy Joel, Smokey Robinson, Siedah Garrett, Scientist, PSY, GQ, Vogue, Salvatore Ferragamo, and Katy Perry.

"A man for all seasons...from Ahmad Jamal to the hippest in contemporary music, Chris knows how it's done...a whiz with the computer and the drums. Chris has the genius touch." - Narada Michael Walden

#### **Education and Certifications**

[ 2017 ]	Avid Pro Tools Certification
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[ 2017 ] The University of Edinburgh, Moray House School of Education, College of Arts

> Edinburgh, Scotland, UK: Master of Science (MSc), Digital Education (Honours), AR, Games, HCI, and Multimedia Focus

Education Research/Education Theory/Instructional Design/Learning Technologies/Human-Computer Interaction/Machine Learning/Augmented

Cognition/Digital Games/Augmented Reality/Virtual Reality/Sonology Dissertation: Learning Efficacy of Multimedia in Interactive AR Environments External Examiner, Dr Rebecca Eynon, University of Oxford

[ 2016 ] Columbia University, Teachers College

New York, NY, USA: Learning Analytics: Process and Theory

Educational Data Mining/Intelligent Tutoring Systems/Artificial Intelligence

Professors Ryan S. Baker and Dragan Gašević

[ 2011 ] Stanford University, Center for Computer Research in Music and Acoustics

Stanford, CA, USA: Intelligent Audio Systems

Music Information Retrieval/Audio Data Mining/Human-Computer

Interaction/Machine Learning/C++/MATLAB/Nonnegative Matrix Factorization

[ 2011 ] Gray Area Foundation for the Arts

San Francisco, CA, USA: Creative Coding/Human-Computer Interaction

[ 2007 ] University of California, Santa Cruz

Santa Cruz, CA, USA: Certificate – (WACM) Algorithmic Computer Music (LISP)

Professor David Cope

[ 2006 – present ] **Apple** 

Boston, MA, USA: Apple Master Trainer Certification (ACT) T3

**▲** Apple Certified Master Trainer

Apple Certified Master Trainer Logic Pro X 10.3

Apple Certified Pro End User Logic Pro X 10.3

Apple Certified Master Trainer Logic Pro X 10.2

Apple Certified Pro End User Logic Pro X 10.2

Apple Certified Master Trainer Logic Pro X 10.1

Apple Certified Pro End User Logic Pro X 10.1

Apple Certified Master Trainer Logic Pro X 10

Apple Certified Pro End User Logic Pro X 10

Apple Certified Master Trainer Logic Studio 9

Apple Certified Trainer Logic Pro 9 Adv.

Apple Certified Trainer Logic Pro 9

Apple Certified Master Pro Logic Studio 9

Apple Certified Pro End User Logic Pro 9 Adv.

Apple Certified Pro End User Logic Pro 9

Apple Certified Master Trainer Logic Studio 8

Apple Certified Trainer Soundtrack Pro 2

Apple Certified Trainer Logic Pro 8 Adv.

Apple Certified Trainer Logic Pro 8

Apple Certified Master Pro Logic Studio 8

Apple Certified Pro Soundtrack Pro 2

Apple Certified Pro End User Logic Pro 8 Adv.

Apple Certified Pro End User Logic Pro 8

Apple Certified Trainer Logic Pro 7 Adv.

Apple Certified Trainer Logic Pro 7

Apple Certified Pro End User Logic Pro 7 Adv.

Apple Certified Pro End User Logic Pro 7

[ 2002 – present ]	USDOE, CADOE, BPPE, ACCSC Accreditation Emeryville, CA, USA: Ongoing Education Faculty Development and Certifications
[ 2001 ]	Ex'pression Center for New Media  Emeryville CA USA: Bachelor of Applied Science (BASc), Sound Arts (Honors)

Emeryville, CA, USA: Bachelor of Applied Science (BASc), Sound Arts (Honors) Acoustics, Sound Design, Signal Processing, Electronics, Recording Arts, Post-Production, Electronic Composition, Game Audio, Multimedia Programming

#### **Academic Awards**

[ 2017 ]	Honours, The University of Edinburgh
[ 2016 ]	<b>Fellow</b> , Higher Education Academy (FHEA) In recognition of attainment against the UK Professional Standards Framework for teaching and learning in higher education
[ 2001 ]	Honors, Ex'pression Center for New Media
[ 2000 ]	Artistic Merit Scholarship, Ex'pression Center for New Media

## **Educational Experience**

[ 06/02 – present ]	Academic Programs Chair – SAE Expression College, Emeryville, CA
[ 01/17 – present ]	North America Chair, Instructional Design
[ 05/16 – present ]	Chair, Audio, Dip, AAS, BAS
[ 05/16 – present ]	Chair, Sound Arts, BAS
[ 05/16 – present ]	Chair, Interactive Audio, BAS
[ 06/02 – present ]	Professor
[ 01/12 – 05/16 ]	Associate Director, Sound Arts, BAS
[ 04/10 – 05/16 ]	Associate Director, Interactive Audio, BAS
[ 09/08 – 06/14 ]	Executive Director, Expression PRO
[ 01/09 – 01/12 ]	Project Manager of Curriculum Development

- Direct education and operations of baccalaureate programs.
- Author/co-Author of three Audio baccalaureate programs.
- Instructor of Game Audio, Computer Music, Experimental Composition, Intermedia Installation, Interactive Environment and Audio Design, Recording Arts, Signal Processing, Post, Technical and Creative Project Development, Capstone Research and Thesis Advisor.
- Student review average: 4.86/5.0.
- Awarded 'Instructor of the Year'. Awarded 'Faculty Member of the Year'.
- Student success focused.
- Sensitivity and active attention to diversity and inclusivity, including race, ethnicity, religion, age, socioeconomic status, gender identity, sexual orientation, intellectual diversity, and ability.
- Chair, Instructional Design, North America (10 Campuses).
- Campus Instructional Technologist.
- Developed and managed the rollout of baccalaureate programs across campuses.
- Manager of curriculum development and implementation.
- Managed up to fifty faculty members.
- College representative for education and technology panels, conferences and workshops.

- Actively involved in improving KPIs including measurable student success, new enrollments, attrition and reentries.
- Responsible and direct support for thousands of students, collectively.
- Assisted and supported thousands of student projects.
- Direct multiple teams of advanced students in the production of audio projects, including collaboration with outside departments and clients.
- Produced hundreds of projects w/ SF Bay Area artists Recruit and manage client relationships.
- Apple, Avid, Adobe certification liaison. Audio Engineering Society (AES) Student Chapter Advisor.
- Original Accreditation and renewal experience.
- Experienced in U.S. DoE Gainful Employment regulations for Title IV eligible programs.
- Experienced in Title IX regulations. Experienced in ADA protections and accommodations.
- Maintain programs aligned w/ policies established by the Dean and Associate Dean.
- Maintain faculty teaching credentials in compliance with state and federal regulations.
- Extensive policy development experience.
- Design and execute annual department budgets and purchasing of \$XXM.
- Manage 124,000 square feet of audio/video facilities and equipment across two campuses, including direct supervision of purchasing for theater halls, lecture classrooms, music and post recording studios, computer labs, broadcast studio, radio station, live performance venues, and video production facilities.
- Diagnose and troubleshoot analog and digital audio systems and implement solutions to ensure the reliable functioning of 40 zero-downtime studios and production suites.
- Manage extensive analog and digital media archives.
- Hire and train faculty, manage and organize faculty training and development initiatives.
- Perform faculty observations and annual performance evaluations.
- Manage the recruitment, contracting and billing of all faculty.
- Design and implement faculty and course schedules.
- Advise, plan and support Facilities in the design and development of branch campus and multimillion-dollar build-out of main campus.
- Train Admissions Representatives to increase product knowledge; advise prospective students.
- Catalog production.
- Campus Audiovisual Technical Services Coordinator.

### [ 01/17 – present ] Chair, Instructional Design – SAE, North America

North America Chair of Instructional Design for 10 Campuses. Curriculum development, Diploma and Degrees Authorship. Curricula include: Audio Programming for Interactive Media, Game Audio, Electronic Music, Sound Design, Audio Electronics, Sound Art Installation, Projection Mapping, Programming for Sound Artists, Intermedia Composition, Recording Arts, Immersive Media, Post Production, Interactive Design, and Adaptive Audio.

## [ 04/10 - present ] Course Director of Research Methods, Thesis Advisor - Expression College

Emeryville, CA – Course author and Instructor. Collaborative experience for the research and development of a comprehensive creative technology project. Emphasis on roles and phases of the system development life cycle, execution of all stages of creative-technical project research and development – creation of an interactive, audio-based, intermedia project of the student's design.

### [ 04/10 – present ] Course Director of Interactive Design – Expression College

Emeryville, CA – Course author and Instructor. Interactive environment design, game audio programming, adaptive composition, sound design and implementation for non-linear interactive environments.

## [ 05/07 – present ] Course Director of Computer Music – Expression College

Emeryville, CA – Course author and Instructor. History of electronic music, MIDI spec, sequencing, sampling, synthesis, drum programming, graphical programming, audio editing, sound design, signal processing, electronic music, creating custom instruments, composing for multimedia applications and live performance, critically analyze electronic music principals and works.

## [ 10/12 – 10/15 ] Lead Instructor – San Francisco State University

San Francisco, CA – Lead Instructor and Curriculum Author: Advanced Recording & Production, Electronic Music, Game Audio. Undergraduate and Graduate level courses. Student review average: 9.63/10.

### [ 02/11 − 06/15 ] Executive Director – **É** Apple Training Hawaii

Kilauea, HI – Founder and developer of the professional certification training centers from the ground up. Director of operations, facilities and infrastructure, maintained brand consistency across campuses and programs. Complete P&L accountability. Created and maintained web and social presence, and marketing. Managed/hired/trained program directors/faculty, developed and managed budgets, developed courses/curricula/policy.

## [ 09/08 – 06/14 ] Founder/Executive Director – Expression PRO

Emeryville, CA – Independently developed and managed the professional training/certification branch of Expression College from the ground up. 221 unique students in the first year. Complete P&L accountability. Authorized Training Center/Partner initiation experience. Courses/certifications in Apple (AATC), Avid (ALP), Ableton (ACTC), Adobe, social media, animation/visual effects, game design, filmmaking, creative coding, electronic music, synthesis, electronics, projection mapping, and installation. Ongoing training of 40 Pixar artists, Apple Gold Level distinction. Accreditation compliance. Hired/developed/managed faculty/staff, developed curricula, instructional designer, scheduling, budget, student advising, social media, online course developer.

### [ 01/09 - 01/12 ] Project Manager of Curriculum Development - Expression College

Emeryville/San Jose, CA – Project Manager of Curriculum Development. Authorship and rollout of Bachelor degrees in Sound, Recording, & Interactivity.

#### [ 04/03 – 04/10 ] Course Director of Game Audio – Expression College

Emeryville, CA – Course author and Instructor. Environment design, interactive audio programming, nonlinear composition, sound design and implementation.

## [ 06/02 – 05/07 ] Course Director of MIDI I & II – Expression College

Emeryville, CA – Courses author and Instructor. History of electronic music, MIDI spec, sampling, synthesis, graphical programming, signal flow, electronic music, live performance.

#### **Honors and Awards**

## [ 2009 ] Faculty Member of the Year

Expression College – Staff Selection

#### [ 2008 ] Instructor of the Year

Expression College - Students' Selection

### **Professional Experience**

## [ 07/93 – present ]

### Executive and Creative Director – THE STUDI/O

International – Design, production and consulting. Intermedia experts, audio/visual/interactive production, software design, AR/VR, installation, performance engineering, design and consulting for hundreds of artists and companies including Apple Inc., Imagine Research, Google, WorkforceLogic, Bag End, Universal Audio, Ableton, LeapFrog, Honor Code, Legends The Game, Robot Invader, Eagre Games, Twisted Tools, iZotope, (dub legend) Scientist, PETA, Tarpan Studios, Narada Michael Walden, Peachpit Press, Focal Press, KSFR 90.7 FM, Shure, SMACNA, 1Light Media, Harbor Picture Company, Stardust Brands, Alsiona, Mazrine, Massimiliano Giornetti, Salvatore Ferragamo, 200+ recording, mixing, and mastering credits. Currently, Audio Lead on two multiplatform/VR games, sound design, composition, VO, adaptivity and implementation; release 2018.

## [ 03/91 - present ]

## **Independent Contemporary and New Media Artist**

International – Electronic and electroacoustic music and sound design, physical structures, electronics, alternative controllers, self-constructed instruments, nontraditional and jazz drumming, studio, live performance, mixed media, installation.

## [02/11 - 08/15]

## Composer/Producer/Music Supervisor – Country Road Films

Los Angeles, CA – Multimedia production, mastering, composition and performance for clientele including GQ, Playboy, Vogue, PSY, and Katy Perry.

### [07/01 - 09/04]

## Producer/Songwriter/Engineer/Mixer/Programmer – Narada Michael Walden, Tarpan Studios

San Rafael/Los Angeles, CA – Worked closely with one of Billboard Magazine's Top Ten Producers of All Time, 57 #1 Hits, multi-Grammy, Emmy and multi-Platinum, Producer and Artist Narada Michael Walden. Worked on countless projects, including work for artists James Taylor, Carole King, Smokey Robinson, Greg Phillinganes, Siedah Garrett, Billy Joel, Sting, and Elton John.

"A man for all seasons...from Ahmad Jamal to the hippest in contemporary music, Chris knows how it's done...a whiz with the computer and the drums. Chris has the genius touch." - Narada Michael Walden

## [09/97 - 05/98]

## Producer and Host - KSFR 90.7 FM, Santa Fe Public Radio

Santa Fe, NM – Producer and Host for prime time radio shows 'Artist Portrait', 'Stereo Jelly', 'Eclecticism', and 'All Talk Don't Bounce'.

## **Professional Associations**

Acoustical Society of America (ASA)

Association for Computing Machinery (ACM)

**Audio Engineering Society (AES)** 

Center for New Music (C4NM)

**Fractured Atlas** 

**Game Audio Network Guild (GANG)** 

**Higher Education Academy (HEA)** 

Institute of Electrical and Electronics Engineers (IEEE)

Interactive Audio Special Interest Group (IASIG)

International Society for Music Information Retrieval (ISMIR)

**Society of Professional Audio Recording Services (SPARS)** 

**Special Interest Group on Computer Graphics (SIGGRAPH)** 

## **Selected Works and Exhibitions** (abridged)

[ 2018 ]	<b>Dead Secret Circle</b> , Robot Invader Audio, multiplatform/VR game, sound design, composition, VO production, adaptivity and implementation.
[ 2018 ]	<b>ZED</b> , Eagre Games Audio, multiplatform/VR game, sound design, composition, VO production, adaptivity and implementation.
[ 2017 ]	<b>Stratum</b> , Sonology, Center for New Music, San Francisco, CA.
[ 2016 ]	Salvatore Ferragamo, Composer, Lo Splendore Della Vita, International.
[ 2016 ]	St0cHastAk0v1Ch, autocomposer A fully programmable sequencer application developed in a graphical environment. Probability distribution autocomposer functionality with Dmitri Shostakovich homage-scale constraint. Controls for independent and global pitch and velocity, independent and vector linear pitch and modulation, independent and global note on/off, and quick-drum-sequencer.
[ 2015 ]	Electroacoustic Compositions for Guitar featuring Mike Keneally
[ 2015 ]	<b>Nightingale</b> , sonification of Phaedrus Plato's dialog Phaedrus, represented by sound and musical traits; morphology; phonology.
[ 2015 ]	<b>Skeuomorph</b> , algorithmic concatenation Atmospheric story generated from a narration library employing corpus-based concatenative synthesis.
[ 2015 ]	<b>Art Walk</b> , Interactive Audio Open Studios, Expression College, Emeryville, CA. Interactive Multimedia Exhibitions.
[ 2014 ]	Simulacrum, formant transformations with Kyma.

[ 2014 ]	<b>Designing Musical Software</b> , San Francisco State University, A.S. Theater, San Francisco, CA. Presentation of live audio coding in a graphical environment, followed by an interactive performance utilizing original music software.
[ 2014 ]	Earthquakes (Remix), The Candle Thieves.
[ 2013 ]	PSY, Composer, Vogue Italia feature, International.
[ 2013 ]	$c^2$ , Boulevard, Chicago, IL. Electronic performance, laptop, physical objects, electronics, controllers.
[ 2013 ]	Face2Phase, facial-tracking gestural controller for audio and visual synthesis.
[ 2012 ]	Katy Perry, algorithmically produced composition, Vogue Italia, International.
[ 2012 ]	<b>Adaptive Systems Toolkit</b> , development in Kismet, graphical environments for interactive design.
[ 2011 ]	GQ, Composer, International.
[ 2011 ]	PETA, Composer, Save the Seals campaign, International.
[ 2011 ]	Laptop Quintet, Impromptu, CCRMA, Stanford University, Stanford, CA.
[ 2010 ]	Playboy, Composer, features, International.
[ 2010 ]	<b>Twisted Tools</b> , Sound Designer and Drum Programmer for Vortex, Scapes, Rolodecks, S-Layer, and Buffeater instruments.
[ 2010 ]	SynthesImage, spectral synthesis, audio sonification of imagery.
[ 2009 ]	CodeTrain, algorithmic analysis and performance Algorithmic compositional tool written in LISP to create new performances in the style of John Coltrane. The software is designed to recognize patterns in rhythm, note order, and melodic, harmonic and contrapuntal movements and progressions, producing new music in the style of the recorded data set.
[ 2008 ]	$c^2$ , Tonic Room, Chicago, IL. Electronic performance, laptop, physical objects, electronics, controllers.
[ 2008 ]	<b>Glitch Machine</b> v1.2 LISP-coded system used to analyze and modulate rhythm data sets and create rhythmically new, complex and polyrhythmic patterns.
[ 2007 ]	<b>eLiS</b> , list sonification Data analysis tool written in Common LISP. Originally intentioned to provide an auditory representation of inaudible information such as earthquake activity, populations across locations, weather patterns, and extraterrestrial storms. eLiS scales and translates lists of information into MIDI pitch, velocity, ontimes, duration, and channels, among other parameters, to audibly observe.

[ 2007 ]	a-morph-ous, algorithmic composer Transformative algorithmic compositional software written under the mentorship of David Cope and his Experiments in Musical Intelligence, with the original intent to produce new symphonic works in the styles of Gustav Mahler and Béla Bartók. Developed as a model, the software recognizes patterns in rhythm, note order, and melodic, harmonic and contrapuntal progressions, producing new music in the style of the input data set. Developed as three analysis systems: polyphonic without rhythm for intractability, polyphonic with rhythm utilizing a Markov decision model, and polyphonic with rhythm and measure structure utilizing a Markov model while constraining analysis to smaller segments for less divergent composition.
[ 2006 ]	Legends The Game, complete sound design.
[ 2006 ]	<b>IMPULSION</b> , electroacoustic improvisation and field recording soundscape Multi-channel installation of an improvised performance of a self-designed percussion instrument and found sounds processed by self-designed impulse responses captured at their original recording location.
[ 2006 ]	<b>Viriconium</b> , Muse Gallery, Chicago, IL. Autonomous and interactive prepared percussion and synthesis installation utilizing a recursive feedback instrument.
[ 2005 ]	Scientist, Dub Producer Hopeton Brown, Engineer.
[ 2005 ]	<b>Girl on a Train</b> , McGonigal's, Barrington, IL. Live electronics, sound and light experiments with live electronic ensemble 7 League Boots.
[ 2004 ]	Explorer Smart Globe, LeapFrog, Sound Designer and Editor (contract).
[ 2004 ]	<b>Colour and Silence</b> , The Onion, Chicago, IL. Electronic performance, live electronics, sound and light experiments, noisemakers, controllers, drum kit.
[ 2004 ]	<b>String diSection</b> , interactive music concatenation system developed within a game engine.
[ 2003 ]	$c^2$ , Lilly's, Chicago, IL. Electronic performance, laptop, physical objects, electronics, controllers, drum kit.
[ 2002 ]	$c^2$ , Ex'pression Center for New Media, Emeryville, CA. Installation of electronic music, tape experiments and live performance.
[ 2002 ]	<b>Sting</b> , Arranger, Rock for the Rainforest, Rainforest Foundation Concert, Carnegie Hall, New York, NY. Reconceptualization of previously composed work. Worked with Musical Director Narada Michael Walden on high profile conversancy benefit spearheaded by Sting and Trudie Styler.
[ 2002 ]	Carole King, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.
[ 2002 ]	Smokey Robinson, Arranger, Rock for the Rainforest, Carnegie Hall, New York.
[ 2002 ]	Billy Joel, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.

[ 2002 ]	Elton John, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.
[ 2002 ]	James Taylor, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.
[ 2002 ]	Siedah Garrett (Michael Jackson/Madonna), Engineer, Siedah, Los Angeles, CA.
[ 2001 ]	<b>About Time</b> , tape effects study. Ex'pression Center for New Media, Emeryville.
[ 2000 ]	<b>Jacked Kerowack</b> , recursive music composed by transforming recordings of Jack Kerouac reading his work. Conversely, the spoken word is effected by parameters unique to the newly generated composition.
[ 1999 ]	इंडिया, field recording library created throughout Australia and India.
[ 1998 ]	Duets, J. Angelo (saxes, flute) C. Colatos (drums/electronics) live 90.7 FM SFPR.
[ 1997 ]	صلح, Improvised processed drone ensemble. Whispering Dove, Santa Fe, NM.
[ 1997 ]	Blight, Cerrillos Historical Society, Duet, w/ J. Angelo. Cerrillos, NM.
[ 1997 ]	Inharmonique, Michael Wilding Gallery, Santa Fe, NM. Installation, drone, two reel-to-reel tape machines and electronics, experiments in equal temperament, alternative tunings and beating.
[ 1996 ]	Percussion Ensemble, International Community School, Addis Ababa, Ethiopia.
[ 1996 ]	ጫጫታ, field recording library created throughout East Africa.
[ 1996 ]	<b>Baroque Ornaments</b> , Santa Fe Art Institute, Santa Fe, NM. Artist-in-residence, soundscape installation for tape and projection of reimagined and recorded historical and contemporary local sound.

## **Selected Writings**

## [ 2017 ] LEARNING EFFICACY OF MULTIMEDIA IN INTERACTIVE AUGMENTED REALITY ENVIRONMENTS

Augmented Reality is an incipient technology rooted in traditional multimedia with attractive applications for education. Mobile devices travel with billions of people globally, and the inherently mobile nature of AR, with its simple and inexpensive implementation relative to the potentialities exhibited for pervasive, personal and connected learning, indicate that it is poised to supplement the future of multimodal educational dissemination. In the present study, the learning efficacy of multimedia forms within interactive augmented reality environments was explored. The results are of importance for identifying educational quality when employing emergent practices. This information may be of value for educators, instructional designers, and learners seeking to utilize empirical evidence as the basis of educational design decisions and learning strategies. The study isolated media types within AR experiences and evaluated their efficacy for learning.

# [ 2016 ] ADAPTIVE LEARNING DESIGN IMPLICATIONS: EFFECTS OF MULTIMEDIA ON LEARNING EFFICACY AND COGNITIVE LOAD

An experimental and data-driven study to inform effective adaptive learning domain model development decisions with an incipient exploration of cognitive load and learning efficacy when utilizing multimedia stimuli. The systems underlying these platforms rely on sophisticated feedback of human interaction, educational theory, learning analytics and educational data mining. The pilot is comprised of an overview of the proposed research, relevant literature of orthogonal and intersecting agendas, imbricated methodological experimentation, data processing and anticipated challenges. Results demonstrate that media types and combinations of media exhibit varying cognitive load, consequently impacting learning efficacy.

### [ 2016 ] EFFECTS OF ARTS EDUCATION AND UNDERSERVED COMMUNITIES

This article explores the potential of arts education access and practice, and advocates that arts education is integral to human rights, social justice and academic, democratic and cultural inclusivity with qualities of importance to the empowerment and equity of underrepresented communities.

[ 2009 ] APPLE PRO TRAINING SERIES: LOGIC PRO 9 AND LOGIC EXPRESS 9: PROFESSIONAL AUDIO PRODUCTION, Peachpit Press, Technical Reviewer.

#### **Selected Broadcasts, Radio** (Producer and Host)

[ May 31, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Steve Reich
[ May 24, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Grisey and Murail
[ May 17, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Alexander Scriabin
[ May 10, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Morton Feldman
[ May 3, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Daphne Oram
[ April 26, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Prince Far I
[ April 19, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: King Tubby
[ April 12, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: François Bayle
[ April 5, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Pierre Schaeffer
[ March 29, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Edgard Varèse
[ March 22, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Éliane Radigue
[ March 15, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Laurie Spiegel
[ March 8, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Pierre Boulez
[ March 1, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Bernard Parmegiani
[ February 22, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Mathews and Risset
[ February 22, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Pauline Oliveros
[ February 15, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Earle Brown
[ February 8, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: David Bowie
[ February 1, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: R. Stevie Moore
[ January 25, 1998 ]	Co-Host KSFR 90.7 FM, 'Stereo Jelly', Punk, Noise, Avant-Garde
[ January 25, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, 'All Talk Don't Bounce'
[ January 25, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: La Barbara and Monk
[ January 18, 1998 ]	Co-Host KSFR 90.7 FM, 'Stereo Jelly', Punk, Noise, Avant-Garde
[ January 18, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, 'All Talk Don't Bounce'
[ January 18, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Coltrane, Jones, Ali
[ January 11, 1998 ]	Co-Host KSFR 90.7 FM, 'Stereo Jelly', Punk, Noise, Avant-Garde
[ January 11, 1998 ]	Host KSFR 90.7 FM, 'Eclecticism', Reggae, Rap, Jazz, Electronic, World

[ January 11, 1998 ] [ January 4, 1998 ] [ January 4, 1998 ] [ January 4, 1998 ] [ December 28, 1997 ] [ December 28, 1997 ] [ December 28, 1997 ] [ December 21, 1997 ] [ December 14, 1997 ] [ December 7, 1997 ] [ November 30, 1997 ] [ November 23, 1997 ] [ November 16, 1997 ] [ November 9, 1997 ] [ November 2, 1997 ] [ October 19, 1997 ] [ October 19, 1997 ] [ October 12, 1997 ] [ October 5, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Pérotin and Arvo Pärt Co-Host KSFR 90.7 FM, 'Stereo Jelly', Punk, Noise, Avant-Garde Host KSFR 90.7 FM, 'Eclecticism', Reggae, Rap, Jazz, Electronic, World Host KSFR 90.7 FM, Santa Fe PR, AP: Ayler, Coleman, Dolphy, Gilmore, Braxton Co-Host KSFR 90.7 FM, 'Stereo Jelly', Punk, Noise, Avant-Garde Host KSFR 90.7 FM, 'Eclecticism', Reggae, Rap, Jazz, Electronic, World Host KSFR 90.7 FM, Santa Fe Public Radio, AP: The Velvet Underground Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Iannis Xenakis Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Terry Riley Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Scelsi and Schnittke Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Berg and Webern Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Aphex Twin Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Autechre Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Negativland Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Alvin Lucier Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Christian Wolff Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Christian Wolff Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: David Tudor Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: David Tudor Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: La Monte Young
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[ October 5, 1997 ] [ September 28, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: La Monte Young Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: John Cage
[ September 21, 1997 ] [ September 14, 1997 ] [ September 7, 1997 ] [ March 1992 ] [ February 1992 ] [ February 1992 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Messiaen and Satie Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Fela Kuti Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: KRS-One Guest Co-Host WZRD 88.3 FM, Northeastern Illinois University, Chicago, IL Guest Co-Host WZRD 88.3 FM, Northeastern Illinois University, Chicago, IL Guest Co-Host WZRD 88.3 FM, Northeastern Illinois University, Chicago, IL
[ January 1992 ]	Guest Co-Host WZRD 88.3 FM, Northeastern Illinois University, Chicago, IL

## References

#### **Brian Andrews**

Associate Professor at DePaul University School of Cinematic Arts, College of Computing and Digital Media brian.andrews@depaul.edu | 415.937.4414

#### **Eric Arvai**

AV/IT Engineer | Senior Producer at University of California, Berkeley Emmy Award Recipient earvai@berkeley.edu | 510.590.8482

## Jay LeBoeuf

Lecturer at Stanford University Center for Computer Research in Music and Acoustics Executive Director at USRCA / Real Industry jleboeuf@stanford.edu | 415.596.5392