CREATEWORLD 2016 THE CREATIVITY OF THINGS

Conference Guide



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Welcome

Welcome to **CreateWorld** - the product of a wonderful and ongoing partnership between the AUC and the Queensland College of Art at Griffith University, and now in its 10th year.

This is a unique event. Our goal is to create a space that explores the intersection of technology and creativity.

This year, our theme is "The Creativity of Things" - a play on the internet of things, and an exploration of how innovative people are using small, ubiquitous, connected devices to create art, to stimulate learning, to inspire, and to share.

The major conference tracks include peer-reviewed papers, presentations, workshops, an exhibition, and, new for this year, a hands-on area we're calling "The Shed" where you can interact with exhibitors on a range of technology that relates to our conference theme.

Another particular focus this year is the Scratch programming language, and we're thrilled to have Natalie Rusk, one of its creators, as a keynote speaker.

No AUC event would be a success without the hard work put in by the paper authors, session and workshop presenters, exhibition contributors, supporters and sponsors, and we thank them all for the many hours they've spent preparing, as well as the time they've given up to be part of the conference.

I'd particularly like to thank my co-chairs, Daniel Della-Bosca, Seth Ellis and Dale Patterson for the substantial work that they've done to bring everything together. Pulling together an event of this scope and quality is always challenging, and Danny, Seth and Dale have been a delight to work with.

I hope that you find that the next 2 days are inspiring, rewarding, and valuable, and provide you with new perspectives, new techniques, new and renewed friendships, and that you're inspired to do great things - perhaps you'll even consider running a session at next year's event!

I wish you a great conference!

Tony Gray, Chair, AUC

Our Code of Conduct

We aim to provide welcoming and professional environments so that people regardless of age, race, gender identity or expression, background, disability, appearance, sexuality, walk of life, or religion can work together to share experience in the use of Apple technology.

Please be respectful of others and be courteous to those around you. We do not tolerate harassment or offensive behaviour.

Complaints about harassment or offensive behaviour may be made to the conference organisers. All complaints will remain confidential and be taken seriously.

Any person asked by an organiser, convenor or moderator to cease harassing or offensive behaviour must comply immediately.

At the discretion of the organisers, a person violating our code of conduct may be excluded from the conference without refund.

Unacceptable behaviour includes, but is not limited to:

- offensive verbal or written remarks related to gender, sexual orientation, disability, physical appearance, body size, race or religion
- sexual or violent images in public spaces (including presentation slides)
- deliberate intimidation
- stalking or following
- unwanted photography or recording
- sustained disruption of talks or other events
- disruptive intoxicated behaviour
- inappropriate physical contact
- unwelcome sexual attention
- sexist, racist, or other exclusionary jokes

Our full code of conduct can be found at:

http://auc.edu.au/policies/code-of-conduct/

Supporters

Gold Sponsor - Adobe



Enhancing creativity in the teaching and learning process is a priority for Adobe. We believe that both students and educators can have a positive impact on a massive scale, if they have the ability to think, collaborate and communicate creatively. Industry is crying out to employ people who can creatively come up with solutions to problems that are yet to exist and Adobe have the tools to help make this a reality. Adobe is committed to supporting educators with a wide range of software and training support solutions to help improve learning outcomes.

Xcerio is a major Adobe business partner, and specialises in building and validating digital proficiency skills that lead to industry recognised certifications. They advise and educate



community, academic, industry and government organisations to demonstrate how digital literacy and proficiency can advance an individual and an economy.

Exhibitors





Visit our exhibitors in The Shed (S03 Grey St. Studios, Level 4) daily from noon. In addition to their presence in The Shed, our exhibitor partners are running the following sessions:

- Steve Iuliano from Mac1 will be giving a presentation on Hyperpad—a simple iPad programming environment—on Thursday at 11:30 in S07 2.16.
- Little Bird Electronics will be running a workshop on Makeblock (an educational programmable electronic robot kit building platform) on Thursday at 1:00 in The Shed.

Partners



Pakronics (pakronics.com.au) offers components, sensors, single board micro-controller platforms and kits for makers, inventors and students of all ages to realise their electronic projects.



ATOM QLD advocates for media education in Queensland by providing professional development opportunities for teachers, advising education authorities on policy and curriculum development, and providing students with opportunities to engage critically with the media.



The Queensland College of Art (QCA) is a specialist arts and design college and, founded in 1881, is the oldest arts institution in Australia. The South Bank facility comprises public exhibition spaces, a cinema, conference rooms, a multimedia art gallery and the most modern and versatile studio facilities in Australia.



Griffith University was created to be a different kind of university—challenging conventions, responding to trends and pioneering solutions. Ranking in the top three per cent of universities worldwide, its future-focused degrees are developed in consultation with industry, based on cutting-edge research, and taught by Australia's most awarded teachers.

Keynotes

9:40 Thursday - S07 1.23

Natalie Rusk

Natalie is a Research Scientist in the Lifelong Kindergarten group at the MIT Media Lab, where she develops creative learning initiatives. She is one of the creators of Scratch, a graphical coding language that enables young people to create their own interactive stories, animations, and games, and share them with others around the world in a creative online community.

Earlier in her career, she started the Computer Clubhouse, a creative out-of-school learning environment where young people design projects with support from mentors—which now has sites in 20 countries, including four Clubhouses in Australia.

Recently, she has been inspired to meet the growing international community of educators and young people offering opportunities for others to learn coding for creative expression.

10:30 Thursday - S07 1.23

Dr. Tim Kitchen, Adobe Update

Dr Tim Kitchen is the Senior Education Advocate at Adobe for Asia Pacific and the Vice President of DLTV (Digital Learning and Teaching Victoria). He is also the Co-Director of the Building Bridges interfaith dialogue program in Melbourne schools.

Tim is on the sessional teaching staff at Swinburne University of Technology in Melbourne where he teaches ICT in Education and also works casually with Wilkar Productions as a video producer, camera operator and editor. A passionate advocate for creativity in education, Tim is a regular writer and presenter for a wide range of national and international journals and conferences.

Tim will talk about Adobe's latest product updates, including announcements made at the recent Adobe Max conference in San Diego.

9:00 Friday - S07 1.23

Adam Jefford

Adam is the Head of Creative Industries at Pimpama State Secondary College and a past Queensland-Smithsonian (Cooper-Hewitt) Design Museum Fellow.

In 2016, Adam was awarded a Good Design Award (one of Australia's most prestigious and diverse design assessment programs) for Jump Start – a design thinking and social entrepreneurship program empowering school students to make a positive change in the world through design-led creativity and entrepreneurial endeavours.

Adam is passionate about opportunities to engage critically with contemporary learning experiences in Art & Design education in Queensland.

The Shed

The Shed is an iconic fixture of Australian backyards—a place to tinker, experiment, build, invent, and be creative, and at this year's CreateWorld we've used the shed as inspiration for a new kind of conference space.

Lunches and afternoon tea will be available in The Shed, as will our exhibition partners. But The Shed isn't a static space - it's a place to socialise, engage, interact and take a break from the main conference sessions.

Scheduled events in the shed include:

Thursday		
12:00	Lunch	
1:00	Workshop: Makeblock and Mbot by Little Bird Electronics	
3:00	Afternoon Tea	
3:30	Workshop: Build Your Own Guitar Distortion Pedal	

Friday

1:00 Workshop: iPad Game Development Using Pythonista

In addition, the following booths will be open from 12:00 until 5:00 Thursday, and from 12:00 until 4:00 Friday.

- ATOM Qld
- MAC1
- LittleBird Electronics (Thursday only)
- Xcerio, discussing Adobe, Microsoft & Autodesk Certification options.
- CJ Anderson, demonstrating AutoDesk Fusion.
- Paul Bardini, demonstrating AutoDesk Circuits.
- James Novak and Troy Baverstock hosting the Queensland College of Art student showcase.

Exhibition

Digital technology is moving beyond the digital ecosystem, off the screen and into the physical world. The work in the CreateWorld 2016 exhibition, *The Creativity of Things*, explores the way in which different practitioners have engaged with technology, objects, physical experience, and the limits of the seen and unseen worlds. Works range from interactive objects, to investigative photography of the microscopic world, to projects that combine the two.

The *Creativity of Things* features artists based in Brisbane and elsewhere, including several U.S. artists represented in video documentation. Artists include:

Robert Andrew	Matt Kenyon
Jenna Baker	Ross Manning
Paul Bardini	Phoebe McDonald
Troy Baverstock	Jane Prophet
Sophie Brueckner	Svetlana Trefilova
Chris Cassidy	Anastasia Tyurana
Roland Graf	Lee Walton and Derek Toomes
Louise Harvey	

The exhibition is open to the public 6-11 December in the Webb Gallery, on the 2nd level (ground floor) of building S02, the Webb Centre. The gallery's hours are 10-4pm daily.

An informal reception for the conference will be held in the gallery 8 December 6:00-7:15, ahead of the conference dinner.

Papers Track

Each session in the papers track is expected to last approximately 20 minutes, with up to 10 minutes of followup questions and discussion.

1:00 Thursday - S07 1.23

Interpreting Complexity

Daniel Della-Bosca

Three dimensional fractal forms are most often generated as point clouds and then converted to mesh objects. The resultant meshes are subsequently quite large in file size and irregular when viewed alongside similar parametrically derived forms. Mesh conversion to NURB curves and surfaces is a conventional process of reverse engineering from scan data but is unique when used to interpret algorithmically derived forms. This paper explores the process of translating the forms in a technical sense but is largely concerned with the conceptual issues of navigating software applications of shape grammar and of the issues regarding spatial reasoning within the Cartesian frame.

A Computational Approach to a Mobile Musical Structure

Andrew Garton

This paper presents a new method using open source software R and ImageMagick to create an animated graphic score for a musical composition entitled "Blue Mobile" that features a mobile structure inspired by Earle Brown's "December 1952".

The Power of Play Based Apps in Patient Self Management of Diabetes

Dale Patterson

Interactive animated 3D computer graphics provide a rich and engaging mechanism with which it is possible to enhance interactions with complex information. This research focused on the use of "flow", in the form of 3D animated movement of items through depth over time, to display changes in diabetes management and blood sugar levels. It also utilizes "play", in the form of interactive 3D game play, to demonstrate 3D systems to present complex health information for Type 1 diabetes in a more engaging form. The flow based "Diabetes Visualizer" interface described here uses circulating 3D graphical structures that flow around the users point of view to present information relating to diabetes management tasks. The Diabetes Visualizer utilizes complex diabetic blood sugar, activity level and insulin delivery information, and presents it in an interactive 3D time based animated game form. Utilizing the mechanism of the 3D flow interfaces, this 3D interactive form is quite different to other diabetes management tools (primarily 2D chart based and static) and shows potential in providing an improved interface to this complex condition and its management.

The Craft of Creating Accessibility in the Post-Digital Era

Pamela See

The elevation of traditional craft practice as a form of resistance against technological development is a key attribute of the post-digital era. In this paper, I posit a sympathetic relationship between Chinese papercutting and computer art (CA). An arts-based research methodology will be applied to analyze the outcomes of an international community art project titled The Float. Undertaken between January and June 2015, it engaged over 100 young people in traditional Chinese craft workshops across Australia, Canada, China, and the USA. The project culminated in a series of exhibitions that emphasized humanity's shared stewardship of the oceans. The artworks presented included both computer-assisted animation (CAA) and computer numerical control (CNC) cut paper. In this case study, the oft-polarized media of craft and CA were simultaneously engaged.

Papers Track (cont.)

9:45 Friday - S07 1.23

Seeking Spectacle – Digital Design & Construction of Interactive Physical Sculptures

Brad Atkinson

Three dimensional fractal forms are most often generated as point clouds and then converted to mesh objects. The resultant meshes are subsequently quite large in file size and irregular when viewed alongside similar parametrically derived forms. Mesh conversion to NURB curves and surfaces is a conventional process of reverse engineering from scan data but is unique when used to interpret algorithmically derived fractal forms. This paper explores the process of translating the forms in a technical sense but is largely concerned with the conceptual issues of navigating software applications of shape grammar and of the issues regarding spatial reasoning within the Cartesian frame.

Digital Disruption

Rae Cooper

The exposure of the 'real or alternative' has potential to be dangerous, social and interactive media allows society to communicate and share ideas that disrupt mainstream culture. Visually, these messages have potentially more power when they entertain and engage with an audience. This mode of creative communication isn't always sustained, progressive or democratic, however they act as an archive of resistant practices and representations of 'the other'. Practitioners such as Ministry of Agnes are exploring protest design within the context of social media and using interactive digital communication to disseminate visual messages. This process acts as both a springboard for conversation and discussion around this creative process and design methodology.

11:00 Friday - S07 1.23

Virtual Reality Rehabilitation for Special Needs

Anjelica Hazlewood

This paper is a research document outlining if the use of Virtual Reality devices could become a new way of learning or rehabilitation for children with special needs. This document includes a test survey and implementation towards this research question.

3D Scanning of Heritage Artifacts as an Interactive Experience - Creating a Window into the Past

Chris Little

This paper uses Mephisto, the only remaining German tank from the First World War, as a case study to examine the methods available to accurately record this iconic piece of war history. It introduces 3D scanning workflows as a method to create an accurate three dimensional model of Mephisto and how to use this complete, to scale, colour model of the tank to preserve, analyse and present Mephisto in ways never been seen before. Combining 3D scanning workflows with forensic analysis and historical war records, this paper explores the possibilities of how to best communicate and present this 3D information through Interactive Realities. It describes how augmented and virtual realities can create the window into the past, possibly answering some of the questions surrounding the tank and allowing visitors an interactive user experience to give people's memories of Mephisto even more meaning.

Papers Track (cont.)

2:00 Friday - S07 1.23

Collaborative Design of a Virtual Community: Engaging Students through Online Simulation

Caroline Robinson

Riverina Shore' is a virtual community which has been developed within the School of Community Health at Charles Sturt University as an online learning resource for students. The virtual community is presented as an attractive webpage in which client scenarios are embedded in a range of community places and spaces.

This project used activity theory to inform the process of interdisciplinary collaboration between diverse groups of practitioners to create this virtual community. A reimagining of the academic hierarchy facilitated effective collaboration between media technologists, educational designers, practitioners and academics to enable the development of authentic resources. The value of Riverina Shore as a virtual community is the participation of real people in the development of the audio-visual resources. Real people, telling their unscripted story in authentic contexts, ensures that the 'messiness and complexity' of their lived experience is not diluted. Simulation scenarios must be truly contextual, reflecting effectively the real life tensions and issues which people cope with on a daily basis.

The evaluation feedback from students, practitioners and academics demonstrates clearly the value of these authentic narratives in facilitating critical thinking, clinical reasoning and visualising opportunities for inter-professional practice. The learning benefits of these scenarios in which students can see clearly the connections between person – family – environment – occupation, may be more extensive than is possible through the use of digital stories. This virtual community could be used effectively to help prepare students for workplace learning experiences, especially in terms of empathy development and holistic person-focused care.

Dancers & Technology, a Collaboration Celebrating "corporeal difference"

Sonia York-Pryce

This paper examines the role of dancers who extend beyond the paradigm of age and their contribution to current dialogues in the field of dance through film documentation. This project aims to make visible the older dancer through film giving new materiality and value by celebrating the older body on screen. The research seeks to investigate which is the preferred performing body, the youthful or the mature? These older dancers choose to ignore the rationale and perform which In turn could be considered inappropriate behaviour by the western dance world. There is a need for the mature dancer to be acknowledged not only for their 'corporeal difference' but recognition that their practice rather than their age defines them.

Presentations Track

11:30 Thursday - S07 1.23

Cloud-based Data Collection in Academic Research

Stoo Sepp, University of Wollongong

This presentation will cover a novel experimental design that uses cloud computing that Stoo is using for his PhD, specifically BaaS (Back end As A Service) to remotely collect and analyze data. Using Google's Firebase Real-time database, an app designed for learning geometry will track user interactions, record scores and automatically upload the data, immediately ready for collection and analyzation. By taking this approach, data collection and data analysis is drastically reduced, giving the researcher realtime results, instead of having to wait for it.

11:30 Thursday - S07 2.16

HyperPad – Coding & Game Design

Steve Iuliano, MAC1

Use simple block and visual based coding techniques to do amazing game design including creation and inclusion of original art work, music, sound effects, animation, and more. Line coding can be incredibly complex if you are new to coding, but imagine creating a professional looking game that you can sell on the App store in an incredibly short period time using your own creations, media and materials instead of relying on inbuilt images and sounds. Coding seems to be in fashion, but many find it hard to use coding across multiple KLAs (outside of Maths and Science) in educational institutions – and this can all be done from an iPad... and for FREE!

3:30 Thursday - S07 1.23

Developing Students' Thinking Skills through Coding in the Primary School

Garry Falloon, University of Waikato

Coding and computational learning activities are becoming integral components of school curriculum in many countries. Often arguments for this centre on the need to develop what are seen as future-focused skills and competencies, and to engage more young people in ICT-related careers or study. These competencies comprise more than technical skills, encompassing dispositional elements such as creativity and innovation, and general cognitive capabilities such as complex and higher order thinking. Indeed, the development of a digitally literate, innovative and flexibly-skilled workforce is seen by many governments as key to future economic prosperity and social well-being. However, while these goals are admirable, limited empirical evidence presently exists that computational activities like coding actually support young students to develop these capabilities.

This presentation summarises findings from a two year New Zealand Government-funded study into the nature of thinking skills students apply when engaged in coding activities. It used an innovative recording tool installed on class sets of iPads to capture video and audio data while 5 and 6 year old students were completing a range of coding tasks that were integrated into a Geometry topic, using Scratch Jnr. Data were analysed against a thinking skills model based on Krathwohl's (2002) adaptation of Bloom's Taxonomy (cognitive domain) and Brennan and Resnick's (2012) framework for evaluating computational thinking, to discover the extent to which coding provided a useful means of building general and higher order thinking skills. Data will be presented and discussed highlighting key outcomes from the study, and useful guidance provided for teachers wanting to explore coding as a means of building thinking competencies in their students.

Presentations Track (cont.)

4:15 Thursday - S07 1.23

Podcasting for Fun and (sometimes, but rarely) Profit

Peter Wells, UNSW Australia

Join the podcast renaissance with this fun talk from Peter Wells, who's been podcasting now for almost 10 years. This will be a hands on demonstration on the tools to use to get your lecture series turned into a podcast – or to create a show for your faculty, school or department. Or maybe just for yourself.

5:00 Thursday - S07 1.23

Using the Smithsonian Learning Lab to Promote Innovation Thinking

Chris Campbell (UQ) and Kathy Mackey

Innovation Thinking is a broader cycle of inquiry that allows teachers and students to use and embrace STEAM problem solving across a range of curriculum areas. This builds on the traditional design cycle and explores economic and historical applications including the pre-conditions for invention, how we learn to recognise the unusual and to see new connections and possibilities. This presentation will combine the innovation thinking and the Smithsonian's new Learning Lab. Participants will work to remix and repurpose resources to form digital collections online in the Learning Lab and will plan how to draw from museum resources to design an innovative solution, product or service. The Smithsonian Learning Lab is a new online platform that allows educators and students to discover the 1.5 million resources, as well as create their own collections using a variety of resources including the Learning Lab's. Participants will also share their created collections with others such as other teachers and potentially their students.

This presentation is hands on with participants completing activities on the cycle of inquiry and also using the learning lab to enhance their knowledge of Innovation Thinking.

9:45 Friday - S07 2.16

Designing Meaningful Interactions for 3D Touch

Stoo Sepp, University of Wollongong

This presentation will cover the visual design of interactive objects intended for 3D Touch on the iPhone 6S and later. Given that depth is a new way users can interact with apps, developers and designers need new ways to demonstrate these affordances. As part of this presentation, we'll look ways to indicate depth visually, as well as demonstrate ways to indicate to the user how 'deep' they are pressing, as well as going into the basic APIs that allows this sort of functionality using Xcode.

10:15 Friday - S07 2.16

Final Cut Pro X: Way Better Than You've Heard

Iain Anderson

Since its release, Apple's flagship non-linear video editing app has battled the internet hive mind's collective opinion. While the initial release had its rough edges, today it's a professional package used far more widely than the herd suspects. The latest 10.3 release adds in new features for professional workflows, like roles-based audio mixing and MXF export for broadcast, along with a clean new UI for everyone and countless handy little features besides. This session is for anyone who's heard of Final Cut Pro X but never really seen it in action, for anyone working with video or teaching editing, and for experienced users who want to know what's new. After a quick look through the UI and all the new features, I'll show how fast it really is to import, organise, edit, add titles, color correct, and export in FCP X. Bring your questions and I'll do my best to answer them honestly. Pretty pictures promised.

Presentations Track (cont.)

11:00 Friday - S07 2.16

Creating Apps and eBooks for Education with Adobe Experience Manager Mobile and the Adobe Creative Cloud Suite

Hohepa Spooner, Auckland University of Technology

Mobile applications and eBooks can be built in number of ways. At AUT University we have chosen to use the Adobe Experience Manager Mobile system, the Adobe Creative Cloud Suite. Using iMacs and MacBooks with Adobe InDesign and Adobe Muse and other Adobe Creative Cloud applications the process concentrates on the design, layout and functionality of the app and eBook without the need to code.

This presentation will look at the Mobile Apps and eBooks that we have created at the AUT Centre for Learning and Teaching, and the Faculty of Māori and Indigenous Development – Te Ara Poutama and how they are used in teaching and learning in various faculties and departments within the university, and AUT University events on our three campuses.

The use of the Adobe Experience Manager Mobile system and Apple iBooks Author for producing student assessment work will also be presented.

11:30 Friday - S07 2.16

Arduino + Music

Matt Gray

Arduino is an open-source electronics platform based on easy-to-use hardware and software. It's intended for anyone making interactive projects. This session will take you through using Arduino as the basis for various music projects.

We will cover MIDI interfaces and how to code an Arduino to be the bridge between your instrument and the real world. You'll learn how to either take input from the physical world and turn that into music, or how to play music and have that affect real world objects.

Hardware requirements will be covered, so you will learn what you might need to purchase to get started. We will also go through some of the cool music related projects that the Arduino community has put together.

3:00 Friday - S07 1.23

Human-machine Agency in Interactive Music Systems

Andrew Brown, Griffith University

Much of my creative work involves the design and use of algorithmic music systems intended to facilitate a close creative partnership between musician and machine. But what does it mean to design and construct such instruments, to make an interactive music system with a sense of creative agency that evokes a rich sense of creative interplay? In this presentation I will discuss some of the issues that arise for me in this activity; examining both conceptual and design perspectives in the context of making and playing original interactive musical systems and devices.

Workshops

1:00 Thursday - S03 4.18 The Shed

Makeblock and Mbot

Marcus Schappi, Little Bird Electronics

Makeblock and the Mbot range are not just your regular off the shelf STEM project in a kit form. Makeblock, which is the programming environment based upon the Scratch framework and the Mbot range offer true creativity with robotics. Using precisely made and interchangeable chassis, mechanical and electronic components, there is no limit to what can be created and explored from all terrain robots to drawing machines. Makeblock and Mbots are designed to make learning and understanding the underlying technology and engineering pleasurable and that makes them the perfect tools for creative expression.

1:00 Thursday - S02 3.06

Adobe's 3D Solutions with Photoshop, Fuse and Project Felix

Richard Turner-Jones, Adobe

Creative content has evolved from the two-dimensional space of the printed page to an immersive experience of rich media. 3D tools have traditionally had a steep learning curve and difficult to quickly achieve results. With that in mind Adobe's design apps brings a rapid and intuitive workflow to the third dimension, whether generating images, characters for games and videos or 3D printed objects.

This workshop, which will be run by Richard Turner-Jones (Adobe Solutions Consultant across all three Clouds) will demonstrate adding extra dimensions to the creative work flow with Adobe Fuse (Preview) for creating humanoid characters, Photoshop's box of tools for creation, texturing, rendering and 3D printing as well as the recently announced Project Felix (Beta).

2:00 Thursday - S02 3.06

Great looking Websites without coding using Adobe Spark Post, Spark Page, Photoshop & Adobe Muse

Dr. Tim Kitchen, Adobe

Most people who are serious about website design and development have Adobe Dreamweaver as their tool of choice however, there are other options, especially for those designers who are not so keen on coding. Adobe Muse is an HTML development tool that requires no coding knowledge. It builds great looking and very functional websites that are responsive aware for all screen sizes.

This workshop, which will be run by Dr Tim Kitchen (Adobe's Senior Education Specialist for Asia Pacific) will go through the workflow of building site assets via the free Adobe Spark Post app as well as Photoshop, then linking them to an Adobe Muse website. It will also demo the simple free Adobe Spark Page app that makes free web pages in seconds that are hosted for free by Adobe.

Workshops (cont.)

3:30 Thursday - S03 4.18 The Shed

Build Your Own Guitar Distortion Pedal – an Introduction to Electronics

Matt Gray

This workshop will get decidedly old school, showing how to make your own guitar effects using actual hardware (rather than clicking buttons in Garage Band). Bored with the two billion transistors in your Macbook? Come see how creative you can be with two transistors instead.

We will start with electronics basics, including resistors, capacitors, diodes and transistors, and move on to how to stick them in a box to make your guitar playing sound just like Hendrix.* We will talk about sourcing your components, including hard to find 'mojo' parts for that special unique sound.

For those who are interested in creating stuff other than guitar stomp boxes, this workshop will cover basic electronics and hardware prototyping. If you have been interested in electronics but didn't know where to start, this workshop will get your diodes pointed in the right direction.

(*Workshop may not result in you actually sounding like Hendrix.)

3:30 Thursday - S02 3.06

HTML Animations & Mobile App Development with Adobe Animate CC

Richard Turner-Jones, Adobe

Adobe Animate CC (formerly known as Flash Professional CC) is an application with a rich history of animated and interactive content creation. Whilst Flash output is still forefront it shares that stage equally with additional content types. Mobile friendly formats including HTML5 and WebGL, video export up to 4K and iOS & Android mobile app development, testing and deployment are all part of this creative tool box.

This workshop, which will be run by Richard Turner-Jones (Adobe Solutions Consultant across all three Clouds) will demonstrate core functionality of Animate CC, including HTML5 and Video output as well as Mobile App publishing. In addition the workflow for content creation and enhancement with the Creative Cloud tools will be exhibited.

4:30 Thursday - S02 3.06

Simple Video Solutions with the free Adobe Premiere Clip (iOS & Android) & Adobe Spark Video

Dr. Tim Kitchen, Adobe

Adobe are the industry leader in video editing software. Premiere Pro & After Effects are standard tools in TV, video and film production. Most students and teachers however don't need the full functionality of Adobe's professional video making tools so a great alternative is the free Adobe Premiere Clip (iOS & Android app) and the free Adobe Spark Video app (iOS and Web based).

Clip & Spark Video allow the user to make a great looking and sounding video in minutes. This workshop, run by Dr Tim Kitchen (Adobe's Senior Education Specialist for Asia Pacific) will show how easy video production has become.

Workshops (cont.)

1:00 Friday - S03 4.18 The Shed

iPad Game Development Using Pythonista

Chris Robinson, Aberfoyle Park High School

Would you like to write an entire app or game on your iPad using nothing but Python code? This beginner workshop is based around using the Pythonista app to rapidly prototype an iPad game right on the iPad. No computer required!

Participants do not need to have any prior Python or app development knowledge. This workshop will also showcase some of the work I am currently doing with my student app developers and feature a how-to on packaging the finished code ready for distribution on the App Store.

1:00 Friday - S02 3.06

Introduction to Robotics with Arduino and Scratch

Alex Jacobs and William Douglas, Coder Kidz

A lot of people label Arduino as "Lego for techy adults", and it's true, at least in the sense that it lets you create amazing things by combining a bunch of tiny little components together into all kinds of arrangements. But it's much more than that, too. Not only is it a lot of fun, but along the way you'll sharpen your mind, pick up several useful real-life skills, and build a bunch of satisfying stuff.

You don't have any coding experience? No problem, you don't need to! Using our Scratch Extension called Eve you can start working on your first Arduino project within few minutes and learn how to control servos, motors, LEDs as well as reading and using data from sensors.

1:00 Friday - S02 3.05

TouchDesigner; Audio-reactive Visuals for Performance

Jason Haggerty

Join Jason in creating audio-reactive visuals and a custom made control-panel in the procedural programing platform, TouchDesigner. Perfect for artists, developers, and all kinds of tinkerers, TouchDesigner allows for very flexible programing from user-interfaces and complex real-time geometry, to data visualisation and interactive environments.

3:00 Friday - S02 3.06

Mobile App Design with Adobe Experience Design

Richard Turner-Jones, Adobe

Up until now UI and UX designers have had to juggle multiple tools to plan, develop and review their mobile apps. Looking to address the need for a single streamlined application, Adobe Experience Design (XD) has been released. Designed and developed from the ground up and actively involving the creative community, it brings wireframing, design and rapid prototyping of desktop and mobile app development under one application.

This workshop, which will be run by Richard Turner-Jones (Adobe Solutions Consultant across all three Clouds) looks to develop an application from idea to interactive review, highlighting tools and workflows that bring the rapid to RAD (Rapid Application Development).

General Information

Registration Desk

The registration desk will be based inside the entrance to S07 The Graduate Centre.

Meals & Refreshments

Lunch and afternoon tea on Thursday will be served in "The Shed" on level 4 of S03 (Grey St. Studios).

The **conference dinner** will be held on Thursday night at the Ship Inn, a short walk from the S07 (The Graduate Centre). Spaces are limited to people who indicated they would be attending at the time of registration.

Friday morning refreshments will be on the ground floor of S07 (The Graduate Centre).

Friday lunch will be in the board room on level 7 of S02 (The Webb Centre).

Caterers have been provided with special dietary requirements as specified by delegates at registration time. Please understand that it may be impossible for caterers to address any special requirements not notified at least 7 days in advance of the event.

Please note that QCafé in the Grey St. Studios building is privately owned and operated, and not part of the catering for CreateWorld. You are welcome to purchase food and beverages at your own cost.

Internet Access

Wireless internet access is available and access details will be provided at registration time. If you are from an institution that supports **Eduroam**, you can use your originating institution credentials to connect.

Emergency Contacts

QCA Campus Security - dial 7777 (from internal telephones) or call 3735 6226.

For all emergencies, call triple zero, 000 or 112. Most mobile phones will call 000 (for Emergency Services) even when no credit is on the SIM card.

Conference Contacts

Tony Gray - 0432 018 441 Daniel Della-Bosca - 0419 735 095 Seth Ellis - 0490 220 740 Dale Patterson - 0402 817 403

Conference Chairs

Daniel Della-Bosca is a lecturer in fine art, design and interactive media at the Queensland College of Art, Griffith University. He has worked and exhibited nationally and internationally as a designer and artist and is committed to the advancement of art and design education. Daniel's primary research focus is the application of fractal mathematics to the field of aesthetics, and his specific skillsets are the interdisciplinary bridges between art, design, CAD software and algorithmic generation of image and form. Daniel has a portfolio that spans public sculpture, exhibit design, jewellery and animation, all for the purpose of engaging in visual and haptic discourse.

Seth Ellis is senior lecturer in interactive media program at the Queensland College of Art, Griffith University, where he is program director of the Bachelor in Creative and Interactive Media. He is a narrative artist and interface designer; his work draws upon local history, allegorical narrative, and experience design to create stories both historical and fictional in new, experiential forms. Seth as worked with local museums and galleries on their collections and exhibitions; his own projects have shown in galleries, streets, symposia and festivals throughout the U.S. and Europe, and at a few places in the Atlantic Ocean.

Dr. Dale Patterson is a computer scientist and lecturer in Digital Design, Visualization and Interaction. Dale has worked in the field of computer science both commercially, in education and research for more than 20 years (focusing on 3D computer graphics and its applications). Dale's primary areas of interest include human computer interface design, VR & AR, 3D computer animation, visual effects and games. Dale also has strong research interests in computing as applied in bio-medical applications (e.g., scientific visualization, applied games & learning, artificial intelligence).

Tony Gray has been Chair of the AUC since late 2010. He is a software developer and educator with over 25 years of experience providing IT support in the University sector, and is co-chair of the AUC's other two conferences–/dev/world for software developers and X World for system administrators. Tony also writes for O'Reilly Media on the Swift programming language.

About the AUC

The AUC was established towards the end of 1984 as a partnership between Apple Computer and nine Australian universities.

At the heart of the relationship was the ability for departments, staff and students to obtain Apple technology at reduced prices and to enable the development of innovative solutions using the Macintosh. The AUC grew to form a network of educational technologists across the universities of Australia and New Zealand, growing to 37 member universities by 2012.

The history of the AUC is one of adapting to change, and in 2013 we reinvented ourselves as a not-for-profit association with no formal relationship with Apple. Our mission is to support and build communities around the use of Apple technologies by sharing experience, insights and know-how amongst members, developing people as leaders, and inspiring and fostering innovative use of technology.

Each year, we hold three conference events for specific subsets of our community. **X World** is for system administrators and support staff, **CreateWorld** is for performance artists, teachers, and those working in the creative spaces, and **/dev/world** is for software developers. Our conferences are open to all.

Learn more, including how to become a member, at <u>www.auc.edu.au</u>.

