I attended the 5th Annual EduTech National Congress and Expo at the Brisbane Convention and Exhibition Centre last week 2-4 June 2015. EduTech is the only event that brings together the entire education and training sector and is the largest education event in the southern hemisphere. This ICT Services Newsletter summarises the keynotes.

Michael Eggenhuizen | Director ICT

EduTech National Congress 2015 (#EduTechAU)

Keynote – Eric Mazur (@eric_mazur)

**Eric Mazur** (Harvard University) primarily a physicist, whose research is in experimental ultrafast optics and condensed matter physics, is well-known in education circles for his **peer instruction model** of teaching. The ‘flipped classroom’ approach to teaching is attributed to Eric Mazur. Mazur’s keynote titled ‘**Assessment: The silent killer of learning**’, highlights that schools have got it wrong when it comes to true learning. Mazur maintains that schools are driven by outdated assessment models that stifle creativity and innovation; that students are risk adverse and scared of making mistakes; that assessment creates a conflict: coach or judge? Current assessment models assess risk adverse and scared of making mistakes; that assessment creates a conflict: coach or judge? Current assessment models assess true learning.

Mazur maintains that schools are driven by outdated assessment models rather than mimicking real things because they are worried about what the few will do. Mazur says schools should move away from a model of teaching where there can be many blocks and banning of devices.

**Procedure > Answer model of teaching** which computers can do quite effectively to a **Problem > Solution > Outcome model where real problem solving takes place**, where there can be many approaches to the solution. He says that grading is incompatible with real problem solving. Mazur says schools should avoid the coach v judge conflict by using peer/self-assessment; external evaluators and **calibrated peer review**. Schools must rethink assessment in order to educate the leaders of tomorrow. **Mazur’s recent keynotes**.

Keynote – Sylvia Todd (@MakerSylvia)

**Sylvia Todd** (known as Super-Awesome Sylvia) is a 13-year old high-school student and girl scout who loves to tinker. At 7 years of age Todd visited a nearby maker faire in San Mateo California with her father and was energised by what she saw. This energy transformed Todd into a superstar of the maker world energising students worldwide to ‘**get out there and make something**!’ Todd’s keynote highlighted her maker career and the work she has done to promote the **maker movement**. Todd says that **making mistakes is part of learning** and that she has failed many a time during her tinkering and building career to date. For more information visit these websites:

- Sylvia’s Super-Awesome Maker Show
- Super-Awesome Sylvia Twitter
- Super-Awesome Sylvia YouTube Channel
- Sylvia’s Super-Awesome Books
- Super Awesome Sylvia’s Water Colour Bot
- Other maker spaces include: Qtecknow; Instructable; DIY

**Keynote – George Couros (@GCouros)**

**George Couros** (Divisional Principal, Innovative Teaching & Learning) spoke about ‘**Leading Innovative Change**’ in schools. Couros began by asking the question ‘why do schools block social media websites like Twitter and Facebook? Students are using these tools all the time outside school! Couros says that ‘we need to rethink schools’. He highlighted one school in Ottawa Canada where a sign out the front of the school clearly displays the school’s intentions. Technology can help students like Musharaf achieve transformational change … why then do schools block technology? Couros quoted Seth Godin saying ‘transformational leaders don’t start by denying the world around them. Instead, they describe a future they’d like to create instead’. The innovator’s mindset is a growth mindset, where a belief that abilities, intelligence, and talents can be developed. Schools ban things because they are worried about what the few will do. Leaders unleash power not control. Couros says that to innovate one must disrupt their routine. A master educator must be a master learner first! He asks the question, would we want to listen to ourselves in a classroom setting all day? Couros challenges us to embrace an open culture - everyone’s a teacher and everyone’s a learner! Schools are often digital-rich environments inhibited by school curriculum, filters, blocks and banning of devices. The biggest game changer in education is when educators begin to think as innovators. We need innovators with a growth mindset in our schools!

For more information visit these websites:

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The biggest game changer in schools and training sector and is the largest education event in the southern hemisphere! **Keynote – George Couros** (Divisional Principal, Innovative Teaching & Learning) spoke about ‘**Leading Innovative Change**’ in schools. Couros began by asking the question ‘why do schools block social media websites like Twitter and Facebook? Students are using these tools all the time outside school! Couros says that ‘we need to rethink schools’. He highlighted one school in Ottawa Canada where a sign out the front of the school clearly displays the school’s intentions. Technology can help students like Musharaf achieve transformational change … why then do schools block technology? Couros quoted Seth Godin saying ‘transformational leaders don’t start by denying the world around them. Instead, they describe a future they’d like to create instead’. The innovator’s mindset is a growth mindset, where a belief that abilities, intelligence, and talents can be developed. Schools ban things because they are worried about what the few will do. Leaders unleash power not control. Couros says that to innovate one must disrupt their routine. A master educator must be a master learner first! He asks the question, would we want to listen to ourselves in a classroom setting all day? Couros challenges us to embrace an open culture - everyone’s a teacher and everyone’s a learner! Schools are often digital-rich environments inhibited by school curriculum, filters, blocks and banning of devices. The biggest game changer in education is when educators begin to think as innovators. We need innovators with a growth mindset in our schools!
**Keynote – Eric Sheninger** (@E_Sheninger)

**Eric Sheninger** (Senior Fellow / Thought Leader on Digital Leadership) spoke about ‘Digital Leadership’. Sheninger began by saying ‘stop making excuses and start making changes.’ Leadership is action not position. Leaders must let teachers innovate and remove all blocks to innovation. *Minecraft, ‘Lego on steroids’*, is one such innovation that schools block. Minecraft involves coding, solving problems and is fun! If leaders don’t get it then it’s not going to happen! Sheninger asks, how can you prepare students for the future if you are stuck in the past? For Sheninger, social media is a game changer. He says social media is like water, it is everywhere. We can ignore it and watch kids drown or we can teach kids how to swim. Leaders should give up control and trust the students! Schools should be all about empowering students to shape learning. Leaders should engage with networked teachers, personal learning networks and collaborative teaching and learning. Sheninger on TEDx: Schools that work for kids.

**Keynote – Heidi Hayes Jacobs** (@HeidiHayesJacob)

**Heidi Hayes Jacobs** (author and internationally renowned leader in curriculum mapping) spoke about ‘Future Schools now: Bold moves / thoughtful leadership’. Jacobs began by talking about old and new pedagogies and that schools are yet to adapt to a new kind of learner / teacher (contemporary learning environment). She spoke about the new literacies: digital; media and global; creating contemporary curriculum quests; and that whilst students may be able to access and use digital tools they may not be able to deep dive. She said that teachers need to teach deeply and that in many cases this will involve the use of technology. Jacobs vented frustration with teachers who complain about there being too much technology out there and where to start. Do teachers say there are too many books out there where do I start? Do doctors say I know there are a lot of medical breakthroughs out there but I’m overwhelmed? No! Jacobs says that teachers need to step up and get on with it! She said that today’s learners create and share knowledge differently from previous generations. Schools need to review pedagogy by removing antiquated teaching methods and provide a new kind of learner with the very best of classical and contemporary teaching. Schools need to move away from the old receptacle model and cultivate personalised learning experiences. Schools need to build all types of spaces big and small to support contemporary teaching and learning ... not classrooms but coaching and feedback centres. *Every school needs green rooms and maker spaces*. Jacobs plays a video that shows how old and outdated school buildings can be brought back to life to create new contemporary learning spaces. Modern learning environments foster a sense of purpose and a sense of belonging. Jacobs highlights three big shifts in pedagogy & curriculum: coding; gaming and personalised learning. She spoke about Nordic countries and their changes in teaching and learning where schools will back off teaching subjects and that students will be grouped differently not by age but by topic / project. A teacher’s role will be based on talent / interest rather than subject and year. Jacobs spoke about the increase in cyber faculties and highlighted the *American School of Bombay* as an example of a contemporary learning environment. The school’s motto ‘*rigorous and inventive*’ is complemented by other statements such as ‘school for the future’ and ‘learning with intent’. Jacobs says that schools should be held accountable for innovation and that teachers need to agree that they don’t know everything and that we all need to learn. Schools should follow business and their approach to innovation, where they reward and own innovation. Jacobs finishes by saying that modelling is the greatest of all teaching exercises.

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**Keynote – David Price OBE** (@DavidPriceOBE)

**David Price OBE** (Learning Futurist) and **Larry Rosenstock** (CEO High Tech High) spoke about ‘open schools & globally-connected learning’. *Autonomy is the new mantra*. The world is changing – machines are already doing the physical work and now the thinking work *(Watson)*. **Autistic students are preferring robots to people**; robots are working in hotels, restaurants (NAO). Global youth unemployment will rise to high levels - freelance work will become the new norm (50% in 2050). Schools should be about open learning: outward facing; highly creative; done with not to students; and driven by purpose. **High Tech High** develops and supports innovative public schools where all students develop skills for post-secondary success. *These are making, doing and shaping schools focussed on project-based learning*. Expectations are the norm rather than standards! Standardisation is the death of innovation! At High Tech High students are presented with a problem and then allowed to solve it. Projects are shared through public exhibitions & schools are open to the public. Watch a **maker space called school** where Rosenstock describes what takes place at High Tech High. Students work with **Coursera** & **MOOCs**.