The pace of technology and its ability to extend human knowledge has never been faster or more confronting.

QUT’s Real World Futures program is designed to help you better understand what is happening and the implications of it for yourself, your children or your business. The program is in its third year of focusing on three intersecting themes – future working, future living and future thinking. These matter to all of us and QUT, as a university for the real world, is equipped to translate what is happening.

Real World Futures has explored this through public events in 2015 and 2016 as well as its digital media presence. There will be more of the same this year – with some twists. At the heart of Real World Futures is the quest to better understand the future of jobs. Our very first public event in 2015 on the future of working featured one of the world’s leading researchers on employment, Oxford University Professor Michael Osborne. And our final event in 2016 featured Harvard’s Professor Thomas Davenport, one of the world’s leading writers on how humans can arm themselves for workplace change.

Along the way, we have heard from leading corporations – Telstra, Aurizon, BMW, Deloitte, HP, RACQ and Queensland Health – about how they are tackling the workplace issues digital disruption creates. And we have balanced them with some of QUT’s best people in the fields of technology, robotics, clinical sciences, big data and business.

It’s been the perfect match. Welcome to Real World Futures 2017 when we hope to keep inspiring and informing you to be part of an exciting future.
Real world futures launched in 2015 with an ominous warning: smart robots fuelled by big data and ever faster processing power will change the nature of all work — from the factory floor to the plumpest of legal offices.

Oxford’s Michael Osborne explained his co-authored research which suggests 47% of jobs are at risk over the next decade. Industry speakers explained what is happening in the building and accounting industries and talent recruiter Andrea Tjoeng demonstrated how employers’ algorithms could know you were a prospect before you even knew you were looking.

Engaged workforces are also important as is the power of new thinking models. Real World Futures brought one of the pioneers of brain training, the University College of San Francisco’s Professor Mike Merzenich to Australia to explain how the trained brain can work better in a time of disruption. The program also looked at some specific technologies: how big data can be a valuable asset for the health system; how driverless cars will insulate us from routine tasks and (with a group of Grade 11 students) mapped out what the next decade looks like.

As well as talking about the brain, we tried out some thinking techniques and hooked up the audience to monitors to see live demonstrations of how their brains behaved under stress and relaxation.

And it finished the year with another antidote to redundant skills – the rise of entrepreneurship across all sectors and age groups of the economy.

Creativity is an antidote. QUT’s Professor Gene Moyle explained why: “Creativity requires the courage to let go of certainty. You’re not always going to have the right answer.”

Across the year – 10 events reaching an audience of more than 1000, many of whom returned in 2016 to stay alert to change.

FACT BOX

THE 21ST CENTURY SKILLS GAP

Industrial economy
Being the boss
Technical knowledge
Perfection
Adherence
Tactical thinking
Appraisals
Manage quality
Process

Knowledge economy
Building relationships
Emotional intelligence
Failing successfully
Engagement
Thinking strategically
Performance management
Manage time
Results

FACT BOX DATES

24 March
Future Working

5 May
Managing The Future Workforce

17 May
The Data Cure

29 July
Future Ways of Thinking

4 September
Future Driving

28 September
The Next 10 Years

17 November
The Age of Entrepreneurship
This year started with an admonition from none less than the Prime Minister that there was never a more exciting time to be an Australian. The themes the government pursued mirrored the themes of real world futures – change is real, dramatic and can be exciting if you’re in control of it.

The Real World Futures program began the year with a close look at the power of connections and the rise and rise of social media as the key source of information. How true that turned out to be as the US elected a President determined to govern on Twitter.

We refocused on entrepreneurship, particularly its role inside corporations where most disruption is taking place, with speakers from very large corporations – Deloitte and Aurizon.

We returned to the health theme with a Real World Conversation, Patient Heal Thyself, which looked at how digital technology was putting the patient more in charge of their medical relationships. The conversation coincided with Pokemon Go, the digital game that moved millions from their couches to chase a virtual reality experience.

We covered off on basic needs with a session, in partnership with the Institute for Future Environments, which looked at disruption all through the food chain and its capacity, as in health, to help an empowered customer make more decisions.

It included a gold-class corporate lineup – former Telstra boss, now CSIRO chair, David Thodey; Professor Thomas Davenport; the Commonwealth Bank’s innovation head Tiziana Bianco and Australia Post’s Chief Customer Officer, Christine Corbett.

The underlying theme was to look for opportunity, an approach fleshed out by QUT’s Michael Rosemann and Suzi Derbyshire in a hands-on workshop.

The QUT-based PwC Chair in the Digital Economy Professor Marek Kowalkevicz tied it all together in explaining how thinking digitally was the key to thriving digitally.

And the message: even among the disruption there are opportunities for those willing to seek them and exploit their assets.

Real World Futures is the key to helping do that.

THERE ARE OPPORTUNITIES FOR THOSE WILLING TO SEEK THEM AND EXPLOIT THEIR ASSETS.

And we finished the year with some notes of optimism through a full-day conference on the theme: Disruptive Influences – And What To Do With Them.

2016

The dates for the 2016 Real World Futures program are:

- 16 March: Connections
- 18 May: How To Make Ideas Bloom
- 13 July: Patient, Heal Thyself
- 29 August: Dining Disrupted
- 29 September: The Next 10 Years
- 19 October: Disruptive Influences – And What To Do With Them
INTERNET OF THINGS
Sensors will soon connect every device to the Internet. Your washing machine will add detergent to your shopping list, city administrators will access live data on pedestrian and traffic volumes, corporations will know every aspect of their operation in real time.

BIG DATA
Every digital interaction is logged. The data it creates is ready to be cross matched. The world of big data informs every transaction and empowers every buyer and every seller.

SOCIAL MEDIA
The world is communicating in large and small groups through existing and emerging channels. Facebook is the giant and the most popular form of communication is by sharing pictures. Kodak might be dead but the Kodak moment survives.

ARTIFICIAL INTELLIGENCE
Machines are able to 'think' more for themselves as they learn to recognize and react to language patterns. Chess is still not intuitive but rapid information processing speeds makes intuition superfluous for more and more functions.

3-D PRINTING
Forget delivery. The printers will soon supersede even the drones and driverless trucks, able to produce individualised products from plastic body parts to titanium machine drives. The first 3-D printed houses are already standing in China. Watch out for 3-D printed robots.

AUGMENTED REALITY
Computer-generated signals add sound, peripheral vision or information graphics to the real view of users – whether they are gamers, tourists or professionals surveying a landscape.

DRIVERLESS CARS
The autonomous vehicle is just a mindset away from being on every road. It uses big data, robotics and a range of sensors to find its way. Your journey will soon be free of the risk of human error – and you’ll have two spare hands to text, email or eat your lunch.

SHARING ECONOMY
Every idle asset is for sale – spare rooms through AirBnB, spare car seats through Uber. Individuals with none of the costs of business are now competing for a slice of corporate revenues. The customer is the winner.

ROBOTICS
Robots are moving up the food chain from routine factory tasks to simple medical procedures. Robotic vision is the next wave which will guide their development.

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DRONES
Watch out above, the drones are about to carve out the space between military strikes and hobbyists. They already are delivering parcels, carrying cameras that monitor cities and farms. Equipped with artificial intelligence, they will soon find their own way to trouble spots.

TEN TECHNOLOGY TRENDS TO WATCH
CLERICAL WORK
Computerised word recognition, artificial intelligence and big data can eliminate most clerical tasks. ... deal with each other to organise our diaries. The remaining work requires creativity and emotional intelligence.

GOVERNMENT SERVICES
Multiple forms will be dead and so will the delays they create. Connectedness, supported by data, means everything will be cheaper and faster. Australia already has an app for the homeless. How long before the identity card is replaced by the Australia App that just does everything?

MINING
Robotics will take on more roles at the mine face, sensors will inform decision making and exploration will be enhanced by augmented reality. Combined, these trends will improve yields and productivity but challenge existing business models.

ACCOUNTING
Like clerical work, many basic functions will be overtaken by programmed robots, leaving accountants to use their analytical skills further up the value chain as trusted advisers in fields their clients once dominated, such as property, HR and technology.

TEACHING
Children understand technology before they understand shoes. Analytics mean mass-produced lessons can be more about audiences, usurping the roles of many teachers. Social media reduces the value of the expert and makes the quality of the content more important than ever.

MEDICINE
The reduced cost of mapping the human genome and the sensors we can wear from birth mean we understand our risks and can manage them better. GPs need to be more skilled at directing us to the expertise we need. And many of the functions we need will increasingly be done by robots.

LAW
Artificially intelligent robots will deliver more consistent, and sometimes better, decisions than judges and juries. The load of case preparation will be more cheaply done by machines which lawyers see as adjuncts, not replacements.

RESEARCH
Vast ponds of data, accessible to all, will shift the balance of research. Social media and big data will tell us what works and what doesn’t. Institutions will be ranked by the data, not their collectives. Among them Facebook, Google and even Uber. Their advantage will lie in the value of their independence. The question is what end users will pay for it.

FARMING
Sensors will provide real-time information on weather and crop conditions to farmers and the users of their products. Robots will use these trends to maximise yields and productivity but challenge existing business models.

MEDIA AND MARKETING
Social media makes everyone a publisher, usurping the roles of many journalists. Big data has usurped the roles of marketing and ad agencies. Which leaves the purely creative work. And the consumer.

ACCOUNTING
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QUT’s WORLD OF OPPORTUNITIES

THINK DIGITALLY
The PwC Chair in Digital Economy, based at QUT, uses its research and knowledge to advise individuals and corporations on business strategies in a digital world. Clients include the Queensland Government, Queensland Urban Utilities, Powerlink and Australia Post. The chair is led by Professor Maree Kovacevics and its services to business include the conduct of workshops that help introduce digital potential.

LEARN NEW SKILLS ONLINE
Join leading academics and researchers at QUT as they share their knowledge and passion with students from all over the world. With learners from more than 145 countries participating in short, convenient, accessible online courses, QUT is a world leader in providing a variety of free online courses to study.

From Business Process Management to Robotics, Big Data to Social Media, QUT is committed to providing access to education for anyone, anytime, anywhere.

2017 QUT MOOCs
Big Data Analytics
Introducing Robotics
Social Media Analytics
Business Process Management
Predictive Analytics: HPE Big Data
Kickstart Your Career: Getting Ahead at University
Leadership Through Coaching and Mentoring

To find out more visit www.qut.edu.au/learn-search/
our-research-research-areas.

INVEST IN RESEARCH
QUT’s faculties (Business, Creative Industries, Education, Health, Law, and Science and Engineering) and two research institutes (the Institute of Health and Biomedical Innovation and Institute of Future Industries) conduct wide ranging research and welcome industry participation.

To find out more about research support, visit www.qut.edu.au/learn-search/
our-research-research-areas.

SUPPORT STUDENTS
The QUT Learning Potential Fund is one of Australia’s largest homegrown supporters of students in financial need. There are few better investments than helping the development of promising and motivated students who might otherwise drop out of their studies. The fund is one of QUT’s key fundraising priorities. It has already given scholarships or bursaries to 14,000 grateful students.

Find out more and donate at www.qut.edu.au/giving/make-a-real-
impact/change-a-life/learning-
potential-fund.

YOU can also mentor students www.careers.qut.edu.au/
employer/mentor or help guide their careers through internships and other Work Integrated Learning www.
career.qut.edu.au/employer/wil.

BUILD YOUR LEADERSHIP
QUT’s Bachelor of Business (GSR) specializes in custom educational and coaching programs to develop local, national and international organizations thrive in a complex, volatile, emergent environments. We leverage expertise across the university, bringing together acclaimed professors working trends to help address real-world challenges. Find out more about our custom services at www.qut.edu.au/business/corporate-
education/our-services.

QUT also offers the MBA, Executive MBA, Emerging Leaders Program, Public Sector Management Program, and the Business Connect portfolio of professional development workshops "Breakthrough: Days." Find out more about the MBA and EMBA at https://www.qut.edu.au/study/study-areas/
study-at-qut*MBA.

The Emerging Leaders Program builds upon foundation discipline expertise and experience, enriching the business alumni, leadership and decision-making of aspiring senior managers in the private and public sectors. Find out more at www.qut.edu.au/study/short-courses-and-
professional-development/short-
courses/emerging-leaders-program.

Upcoming Brisbane
Breakthrough Day workshops
16 February: Leading Change and Growth through the Power of Conversation
7 March: The Psychology of Negotiation
24 March: How to Develop a Competency Culture
18 April: Contemporary Workforce Planning through Strategic HR
24 April: Leading through Stressful Situations
9 May: Behavioral Economics: Psychological Insights into Human Behavior
29 May: Creating Business Value with IoT Data

Find out more about "Breakthrough: Days at www.qut.edu.au/study/
short-courses-and-professional-
development/short-courses/business-connect-leadership-
development-brisbane.

Join the conversation
The Real World Futures program in 2017 will continue its program of forums and conferences designed to better inform you on future working, thinking and living. Real World Futures is Vice-Chancellor’s initiative to better prepare the university and its community for the changes that will flow from digital disruption. Next year’s program will include 15 monthly short forums and a major conference, continuing the theme “Perspective Influences.”

Join our mailing list at www.real-
world-futures.qut.edu.au or follow us on Twitter @RealWorldFuture.

Support students
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You can also mentor students www.careers.qut.edu.au/
employer/mentor or help guide their careers through internships and other Work Integrated Learning www.
career.qut.edu.au/employer/wil.

Build your leadership
QUT’s Bachelor of Business (GSR) specializes in custom educational and coaching programs to develop local, national and international organizations thrive in a complex, volatile, emergent environments. We leverage expertise across the university, bringing together acclaimed professors working trends to help address real-world challenges. Find out more about our custom services at www.qut.edu.au/business/corporate-
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development/short-courses/business-connect-leadership-
development-brisbane.

Connect with the right opportunity at QUT. Email us at
realworldfutures@qut.edu.au

to make the connection that will help you.

Or find all the links to these and other programs on our webpage www.real-world-futures.qut.edu.au
2017

PROGRAM OVERVIEW

Tuesday 14 March
Workplace 2030 – The Skills You Need and How To Get Them

Wednesday 17 May
The Secrets of Entrepreneurial Energy

Tuesday 18 July
Unlocking the Human Genome
(in partnership with the Institute of Health and Biomedical Innovation)

Wednesday 2 August
Connected People, Connected Cities
(in partnership with the Institute for Future Environments)

Monday 25 September
The Next Ten Years

Tuesday 17 October
Disruptive Influences – And What To do With Them 2

Dates To Be Advised:
Disconnections – How To Bridge the Technology Gap
The Driverless World

(Topics subject to variation but updated regularly online – www.real-world-futures.qut.edu.au)

The impact of technology on everyday work, thinking and living becomes more salient every day. Political shifts in the northern hemisphere are aligned to alienation from change suffered by many voters. Ironically, the technology of campaigning, particularly through social media, has activated the voices of the alienated and delivered leaders sceptical of innovation and globalisation.

The same mood is rising in Australia, particularly outside the major cities where jobs are at risk and the technology that can help bring growth is still scarce.

To paraphrase Malcolm Turnbull, there’s never been a better time for the Real World Futures program.

This year, it will continue its mission to explore and inform on the technology shifts that are changing human behaviour – how we work, how we think and how we live.

The themes we will explore include the skills needs of the workforce in 2030 (think back to 2004, it’s not that far away).

We also intend to look at how technology is changing the structures and human interactions in our cities.

We will again explore health impacts, this year with an in-depth look at the state of play on human genomics.

And we will find our way through what’s happening in retailing with the emergence of Amazon in Australia.

Underpinning this are two important issues: i) the value of entrepreneurship (and there will be many opportunities to explore this), and ii) the social fallout from technology and its impact on how voters are behaving.

The dates for our events are on this page. Others will occur as opportunities present.

Note also the date for our major event, the follow-on from last year’s full day conference ‘Disruptive Influences – And What To Do With Them’. It will be held on Wednesday October 11.

There are many ways to stay in touch with the program. We look forward to you joining us.

DAVID FAGAN
Director Corporate Transition

Real World Futures has a digital as well as physical life. You can keep in touch with our program and view videos from our past forums through our website www.real-world-futures.qut.edu.au. And you can keep up to date with developments that impact future work, future living and future thinking through our Twitter feed @RealWorldFuture or on LinkedIn where you can find us and others of like interest at QUT Real World Futures.