



The New Zealand Conference of  
Business & Technology

6 & 7 Nov 2019

# TECHNOLOGICAL DISRUPTION AND INNOVATION

Bridging the gap between academic analysis  
and industry requirements.

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The New Zealand Conference of  
**Business & Technology**

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## Flavio Hangarter

*Founder, Selfstarters Academy*

Flavio is an entrepreneur and educator and has worked with 350+ early stage ventures over the past 10 years. With his background in sales and marketing, Flavio has represented large companies like Disney, Warner Brothers, corporates like 2Degrees and helped small businesses to significantly increase their sales revenues. Since completing his Masters degree, Flavio has worked with government funded technology incubators and accelerators helping build New Zealand's high tech businesses. He is currently the venture manager at ecentre, Massey University. Flavio has been on the founding team of two tech companies and shares his experience with founders and their teams. Through Selfstarters Academy, Flavio helps turn business to business solutions into high growth companies.

## KEYNOTE SPEAKERS



### Dr Lisa Callagher

*Senior Lecturer, Innovation and Entrepreneurship,  
The University of Auckland*

Dr Lisa Callagher is a Senior Lecturer in Innovation and Entrepreneurship at The University of Auckland Business School. Lisa's research addresses the organisation and management of innovation and research commercialisation. Her research is published in *Management Inquiry*, *Journal of Innovation Management* and *M@n@gement*. Lisa has been involved in innovative curriculum design, including multiple funded initiatives spanning a range of disciplines, including cross-faculty use of LEGO™ Serious Play and publishing teaching cases in *Journal of Management and Organization* and *International Journal of Technology Transfer and Commercialisation*. Her teaching and graduate supervisions include ten years' experience teaching science-business cross-disciplinary programmes where the disruptive or sustaining nature of innovation are crucial factors product paths to market

### **Disruptive technologies and innovation in tertiary education; a broken promise or a wrong promise?**

*Disruptive technology understood as any enhanced or completely new technology that replaces and disrupts an existing technology that is already in use and rendering it obsolete, entered our vocabulary nearly 25 years ago. How disruptive technology and innovation will affect tertiary education has been hypothesized for a similar length of time, from “threatening” or “sweeping away” the dominant business model towards “transforming” and “reinventing” learning. For now, the evidence for either stance is mixed leading some to conclude that disruptive technology is a broken promise. But is this promise of disruptive technologies and innovation tertiary education broken or did we believe the wrong promise? In reviewing the extant knowledge about the disruptive technology use in tertiary education, I suggest the real promise is one of sustaining learning in tertiary education through the adoption of disruptive technologies.*



## Anthony MacMohan

*Technology Coach, The IT Psychiatrist*

With 20 years' experience studying and working in the IT industry, Anthony is an expert who cuts through the hype and jargon to remove complexities and demystify technology - enabling you to not only regain control, but also transform your business. Anthony designs and implements strategies, policies and processes that work, so you can focus your energy on achieving outcomes and providing excellent customer service – knowing that your technology is working hard for you, not the other way round. He partners with businesses to understand what they want their technology to enable them to do - asking the right questions and analysing their challenges to determine effective and relevant solutions.

### **Mindset over Method**

*Agile vs DevOps? Continuous Delivery vs Agile? React vs Node?*

*As the pace of change around technology increases, so does the choice of frameworks, standards, methods, and tools available for delivering a successful outcome. But the reality is that methods and tools are only partly responsible for success. It all comes down to mindset. Without the correct mindset, teams will struggle to deliver and the customer will miss out. But what is mindset, and how do you grow it? During this interactive session, Anthony will explore why mindset is so critical to success, dive into projects and organisations that have grown a successful mindset, and share tips on how to build it within a team and an organisation.*



## Shailan Patel

*Education Manager, MYOB*

Shailan is passionate about helping students catapult from education into meaningful employment. His career has been diverse, having worked in sales and advertising for three of NZ's largest media companies, and he is now leading the education channel for MYOB nationwide. He works alongside accounting students, young Kiwi entrepreneurs, and helping students to see the growing opportunities in a career in tech. Shailan is no stranger to the stage - having presented an industry perspective at various education and tech events across the country.

### **Future trends - embracing new technologies, adapting to changing workforces and workplaces**

*The next wave of digital disruption is here and changing everything we know about technology and its place in our world. Ideas once coined 'futuristic' are rapidly changing the face of business. But is NZ truly ready for the magnitude of change expected over the next few years? How can we leverage technology? Shailan will present on adapting to new technologies affecting the future of work (such as AI and machine learning, IOT and big data), and provide insights for us to make the most of the digital economy.*

## PANELISTS



**Dr Adam Barker**

*Director, Scarlatti Ltd*

Dr Adam Barker is the founder and director of Scarlatti Limited – a research, evaluation and analytics firm. Adam's work with Scarlatti includes quantitative evaluation, data analytics and economic modelling. In recent years a focus has been leading and evaluating projects to grow human capability in New Zealand's primary industries.

Adam founded Scarlatti in 2004, following a period as Chief Operating Officer of Celentis, a commercial science company owned by AgResearch. Prior to that Adam was a consultant for leading strategy consultancy McKinsey & Company, based in London. Adam holds a Bachelor of Engineering (First Class Honours) from the University of Auckland and a Doctorate in Engineering from the University of Cambridge, United Kingdom.



**Ruth Cooper**

*Learning and Development Consultant*

Ruth Cooper has more than 20 years senior leadership experience in adult education and training in New Zealand, Australia, Taiwan and Brazil. Her focus has always been on applied learning with a passion for digital education. She has held positions for a number of leading institutions including CEO at Yoobee School of Design and Operations Manager at the International College of Management in Sydney. She is currently a Learning and Development Consultant focussing on programme development, quality management and digital learning. She has project managed and developed a number of learning management systems in the tertiary sector, the most successful of which is Yoobee Online. Ruth's love for learning is ongoing and she is currently studying a Master of Science (Digital Education) (Online) at the University of Edinburgh.



## Thai-Anh Cooper

*Founder and Managing Director, in2HR*

Thai-Anh Cooper (nee Tran) has an extensive background in HR recruitment, HR franchising and HR consultation. Thai-Anh is the founder and Managing Director of in2HR – a growing HR Consultancy specialised in supporting small to medium sized businesses. With a strong bent towards employment relations, Thai-Anh often helps organisations stay on the right side of the law by ensuring that they have a solid HR framework in place. She is consistently pushing the boundaries in the employment space. Her latest venture ‘Walk Ethical’ is a ground breaking NZ initiative that looks to transform the employment landscape by supporting and celebrating ethical employers so that they become an employer and a business of choice.



## Jay McLaren Harris

*CEO, Tumeke Enterprise; Lead Coordinator, Neralcm*

The founder and CEO of Tumeke Enterprise, Jay McLaren-Harris, is an outstanding orator with a strong and powerful story to tell.

Having grown up in small-town New Zealand, the challenges and trails that Jay faced has contributed to his compassionate, disruptive and innovative style of leadership.

Jay has spoken at hundreds of events all around the world with audience capacity reaching in its thousands.

Jay is an experienced public speaker and business owner having open and operated three businesses all before he was 20 years old.

Having been labelled as ‘Disruptive, original, thought provoking and fresh’ by critics, Jay continues to smash stereotypes and prove the naysayers wrong.

Jay has stood on the same stages as top influential leaders such as Dr. Lance O’Sullivan, Sir Stephen Tindall, Robett Hollis, Rt. Hon. Winston Peters, Joseph Parker, Holly Bennett, Erin Simpson, US Consulate General- Katelyn Choe and more!



## **Tim Harris**

*Business Development Manager, Vesta Central*

Simply starting on the ‘bottom rung’ as an electrical apprentice taught me to work hard, time is money, and with some luck and good fortune opened up a great variety of roles, companies and locations. I have worked on some of the largest industrial projects in Australia and South East Asia, set up an Asia wide distribution network based out of Singapore, served 6 years in the public service with Trade NZ, rejoined the private sector exporting prefabricated buildings across the Pacific, consulted and coached NZ companies to go global, helped my wife set up and run a successful Thai restaurant, recently built our dream home and now its back to business development with good friends growing our startup digital cloud company Vesta Central to go global.



## **Dr Sangeeta Karmokar**

*Senior Lecturer, School of Future Environments,  
Faculty of Design and Creative Technologies, AUT*

Sangeeta’s practice-based research interest lies at the intersection of the entrepreneurship and design discipline with digital innovation and a special interest in social and women entrepreneurship. Sangeeta is the founder and chair of Women Entrepreneurship Centre, a not-for-profit organisation based in Auckland ([www.wencentre.org.nz](http://www.wencentre.org.nz)), working towards empowerment of women through inspiring, educating and entrepreneurial leadership.

As an academic and researcher, she is interested in fostering creative and critical thinking and providing design thinking opportunities to build innovative business entrepreneurship.



## Edwina Mistry

*Director, CreateOps*

Edwina is the Founder and Director of CreateOps and the founder of Ytech? that runs events for youth by youth. She is on the board of Tech for Good NZ, a member of the Industry Advisory board of School of Product design – University of Canterbury, NZ and the Deputy Chair of the Age Concern board. She has over 30 years of experience in the tech sector and has worked with large technology companies both locally and overseas and 21 of these years in the education sector. She has been on NZQA panels for ICT curriculum design for both school and tertiary.



## Ian Musson

*Business & Relationship Manager – Maori Economy, Callaghan Innovation*

Ian was the inaugural Programme Director for Kōkiri, Aotearoa's first business accelerator dedicated to speeding up the development of Māori-led start-ups. With a passion for supporting Māori and other indigenous peoples globally, Ian sees his role as connecting dots and building people who build their business. Ian believes people are innovative by nature and history provides ample evidence; however, more often than not existing structures don't facilitate the means to grow businesses that measure success outside the status quo – his kaupapa focuses on redefining what business success looks like. Ian thrives in his work, has recently stepped into a role supporting the Māori economy as part of Callaghan Innovation, and operates a community focused co-working environment called Nau Mai. His professional history crosses the corporate, education, startup and government sectors, and Ian holds a bachelor's degree in marketing and an MBA from The University of Waikato.



## Annabel Robertson

*Business Development Manager, ENZ*

Annabel Robertson is Education New Zealand's Auckland based Business Development Manager and is a member of the EdtechNZ Board. Prior to this, Annabel worked at the New Zealand Embassy in Berlin and as an adviser on international security issues at the Ministry of Foreign Affairs and Trade.



## Stan van Workum

*Founder, Clarity Inc*

Stan is building companies to uplevel the mental health of humanity. He grew up in a retail environment, started his career in analytics & innovation consulting, and now is paving the way entrepreneurs to be purpose driven, fulfilled and confident.

His first company, Clarity Inc, is supporting entrepreneurs with their mindset: setting priorities, being home on time for dinner, and tapping into the powers of empathy & intuition. It's like a gym for the mind, for those who desire to live as the best version of themselves. Gita, Stan's second company, is reinventing productivity. Not just another tool, board or task list, but exponential time savings through amplified local & global collaboration. JRNAL.me is Stan's latest startup, supporting more people with their mental health by making journaling easier and more helpful than ever before.

If Stan's work or passion inspires you, feel free to reach out personally.

## WORKSHOP



### Ruth Peterson

*Sector Services Manager Northern Hub, Ako Aotearoa*

Ruth Peterson is Sector Services Manager for Ako Aotearoa's northern region. Prior to taking a position with Ako Aotearoa, Ruth was Vice President of the New Zealand Commerce Teachers Association (NZCETA), then worked in staff development for Manukau Institute of Technology. She established the Centre for Assessment of Prior Learning at MIT, and co-developed a method of assessing prior learning (APL) where the candidate is proactive in planning their storytelling, subjecting their many life experiences to a selection process, choosing episodes that would enable them to identify and test their assumptions, then connecting them to the learning outcomes of a course. In her current role, Ruth has had over ten years of experience managing research funds for Ako Aotearoa. Throughout this time her focus has been on translational research, action-focussed projects that provide an opportunity for project teams to take into account what is already known and assess this against what is happening.

## GUEST SPEAKERS



**Kathiravelu Ganeshan**

*Educator and Author*

Ganeshan has extensive experience teaching at universities, polytechnics and private colleges in Australia, New Zealand, Singapore, Sri Lanka, and the USA. He has more than sixty publications, including five books. He enjoys learning and helping others become life-long learners. He loves technology. He likes the use of technology in improving peoples' lives, making living and learning fun. Ganeshan loves the sea, catching waves, swimming, windsurfing and helping others discover the music of nature and the waves and how these help people in so many ways, including improving learning in any discipline. He says, "Learning should be fun, not a chore."

### **Education: Making that paradigm shift**

*In this presentation, I challenge you to reconsider what we do as educators, how we spend our time, and what impact we have on our students who spend time and money and make so many other sacrifices to learn from us. What value do they get? Are we doing the best we can for our students? Are we constrained by the experts and compliance police? Are there better ways of doing things, in the age of the internet, 5G, self-driving cars, smart phones, smart robots, and, yes smarter people?*

*I believe that, in this connected world, where information and knowledge are available on demand, 24/7, it is time to rethink education. In this presentation, I introduce the case for a major paradigm shift in education to keep up with the changing needs and expectations of the human race.*

*I will introduce three successful examples of new ways of delivering education; the first, a different approach I used within the existing boundaries in the tertiary education sector in New Zealand; the second, a successful school in the Netherlands; and, the third, one of several schools in a multi-national community in India. The current system of education evolved a long time ago. Tens of thousands of researchers have studied teaching and learning and published books, scholarly articles and other publications.*

*Yet, we still have courses, timetables, lectures, lesson plans, tutorials, attendance, exams, plagiarism, Moodle, Turnitin, internal and external moderation and monitoring, compliance police, teaching and learning experts and Death by PowerPoint. WHY?*



## Kevin Jenkins

Co-founder, Martin Jenkins

Kevin Jenkins is a co-founder of [www.MartinJenkins.co.nz](http://www.MartinJenkins.co.nz), working at the intersection of business, innovation, and regulation. He specialises in strategy, performance, and change. He is also regularly called on for his expertise in public policy and issues management, economic development, and in governance, including internationally. He has advised in the science and innovation, financial services, building and construction, transport, justice, health, and primary sectors. He is an online columnist for the NZ Herald, including writing about the sharing economy, digital subscription services, and other technological disruptions such as AR/VR in retail.

### Homegrown digital platforms blossoming in Aotearoa

*The fastest growing dimension of the global economy is digital, the fastest growing dimension of the digital economy is digital platforms, and arguably the fastest growing dimension of digital platforms is subscriber services. It is important to look behind the hype and glamour of high-profile platforms like Apple, Netflix and Baidu to understand the underlying business models.*

*Successful platforms share three key characteristics: they enable exchange of value between producers and consumers, often with added value through use of an algorithm; they enable a great user experience when attracting, facilitating and matching transactions; and they grow new layers of value not envisaged in the original concept. They often evolve and grow ahead of regulation.*

*Platforms disintermediate by removing gatekeepers, unlock new supply and demand and create community feedback loops e.g. more demand is met by more supply. They reverse the network effect of the 20<sup>th</sup> century industrial era by replacing monopolies of supply based on economies of scale of production, with the possibility of monopolies based on economies of scale of demand, including by making the 'long tail' of consumers profitable.*

*It is equally important to recognise that homegrown platforms are innovating at pace and disrupting businesses in Aotearoa and globally. Whilst Xero and others are high-profile examples of Kiwi digital companies succeeding globally, lots of others are working hard below the lidar. Three interesting examples are in tourism, mental health and artisan food.*



## Stephen Macaskill

CEO, Dasset

Stephen Macaskill is CEO of Dasset, New Zealand's biggest trading platform for digital currencies. He has over a decade of experience in monetary theory, commodities, traditional financial markets and start-ups.

Since 2012 Stephen has been a thought leader and pioneer in the cryptocurrency space. He sits on the Alumni Board of the Foundation for Economic Education, and is the co-founder of the Blockchain Association of New Zealand, an organisation dedicated to educating and advancing blockchain technology.

Stephen has been invited to present around the world on the topics of bitcoin, blockchain technology, monetary theory, and economics at places such as: Money 20/20, Freedom Fest, ASB, Digital Identity Association, The University of Auckland, National Business Review and many others

### **What is 'Value' in the digital era and how technology is shaping the financial future?**

*Did you know banks are still using 150 year old technology to transfer value in today's modern world? The internet has been in use for 50 years, but most national currency settlement happens between banks through financial messages sent via telegram. Bitcoin is a technological breakthrough that created scarcity and property rights in the digital world.*

*Digital scarcity enables data to be valued, owned, and transferred. With this technology digital assets can be sent as easily as sending an email. Cryptocurrency has enabled the ability for global frictionless digital value transfer without counterparty risk, or the need for a person in the middle to facilitate the transfer. Blockchain technology is creating a future that empowers individuals to take ownership of their own data and digital assets.*

*How will this affect legacy financial institutions, such as banks, that are transferring value still using 150 year old technology? What opportunities will this technology bring? Stephen Macaskill discusses the implications of blockchain technology and how it is going to shape our financial future in a digital age.*



## Marina Matthews

CEO, Superdiversity Institute

Marina is Chief Executive of the Superdiversity Institute for Law, Policy and Business which includes New Zealand Asian Leaders (and NZ Asian Lawyers) and SUPERdiverse WOMEN. The Institute undertakes key research on issues and challenges that affect migrants, and those ethnically, culturally and linguistically diverse. Marina is also a Special Counsel at Chen Palmer, a public and employment law firm where she specialises in education law and public policy. Marina advised four Crown Ministers on tertiary education, and worked for the Tertiary Education Commission. Marina grew up in Invercargill, and is Ngati Kahu and Tuwharetoa.

### Impact of superdiversity on technical disruption and innovation

*The 2018 Stats NZ Census reflects the increasing superdiversity of New Zealand, in which 70.2 percent of the population identified as European, 14.9 percent as Māori, 15.1 percent as Asian and 8.1 percent as Pacific. All ethnicities with the exception of European increased proportionally from the 2013 Census. The 2018 Census shows the cultural make up of New Zealand is becoming more diverse, reporting that 27.4% of the population were not born in New Zealand. Superdiversity goes beyond ethnicity, and encompasses various demographic groups including religion, gender, religion, age, and economic backgrounds.*

*As New Zealand is a superdiverse nation, this reflects on the composition of tertiary students and staff in the business and technology sector. An understanding of what superdiversity means in practice nurtures the idea that each student brings unique experiences, strengths, and ideas. Superdiversity encourages diverse thought, inclusivity and disrupts traditional narratives and stereotypes. How we experience superdiversity in the classroom will impact the future of New Zealand's workforce and business – shaping how we learn, interact with others, and what we expect of business and technology.*

*This presentation highlights the issues and challenges of having more ethically, culturally, linguistically diverse people in the classroom, and how it will disrupt not just who we are teaching, but how we teach.*



## Jatinder Oberoi

CEO, SeCompAss

Jatinder is the co-founder and CEO of SeCompAss Limited, a cybersecurity services business, in Auckland. He is also the founder of CYBERSECURE.KIWI, a not-for-profit SMB business awareness campaign and regularly organises live events and presents at ISACA, (ISC)2 and as a guest lecturer in many tertiary education institutes.

Jatinder has helped organisations reduce their business risk exposure, mature their information security and data privacy postures, respond to security breaches and incidents, build security response teams.

Currently, he is busy with a team to create SecureSpace.IO (a secure file-sharing and collaboration platform) as well as an Access Governance Platform.

### Cybersecurity for small and medium-sized businesses

*Small businesses are at the core of the New Zealand economy, and the common perception regarding Cybersecurity Risk in the Small and Medium-sized Businesses (SMBs) is: “No-one would want to target me, I’ve got nothing to lose. The chances are slim, I reckon I’m fine. My IT Service provider has got it covered.”*

*97% of enterprises – 499,944 in total according to MBIE’s 2017 statistics - have fewer than 20 employees but contribute more than a quarter of the country’s GDP.*

*As you would expect, almost all of these businesses make use of technology :*

*u 96% use the internet;*

*u 69% have a website;*

*u 72% have Internet sales*

*But the statistics show a different view as with this widespread use of technology comes a number of risks in the form of common cybersecurity threats and vulnerabilities.*

*Almost a quarter (24%) of New Zealand small businesses have been hit by cyber crime according to Symantec’s SMB Cyber Security Survey with the average financial loss sitting at \$16,000.*

*Is your SMB Are operating below the ‘security poverty line’ (a concept first identified by Wendy Nather in 2011) below which a company cannot adequately protect itself from cybersecurity threats?*

*This talk explores some easy tips and techniques to keep the SMBs safe online by using three different categories of SMBs as case studies.*



## Igor Portugal

*Chief Growth Officer, Catalyst Cloud*

Igor Portugal is the Chief Growth Officer of Catalyst Cloud and the chair of the Auckland branch of IT Professionals New Zealand as well as a long standing member of Aspire2 Technology Advisory board.

Igor has over 25 years of experience in NZ IT industry. Igor built a number of successful software companies and in the process helped thousands of New Zealand businesses implement technology.

### **The Impact of Cloud Technologies on Innovation & Disruption**

*There is much misconception in the market about what is cloud computing. Many people still believe that cloud is “a computer in somebody else’s data-center”. In this presentation, Igor will discuss the difference between true cloud computing and traditional data centre hosting and virtualization technologies. Igor will articulate the way organizations take advantage of cloud-native applications and the impact cloud computing has on the pace of innovation and disruption.*

### Kashif Ahmed

*Business Lecturer and Moderation Coordinator,  
Faculty of Business, Aspire2 International, Auckland*

Kashif Ahmed has an MBA (Management) degree topped up with an MSc degree in Human Resource Management from the Brunel University, West London, UK. His research interests lie in general areas of Training and Development, Organisational Development, Management Development, Corporate Social Responsibility and Organisational Behavior. His teaching expertise encompasses Business, Management and Research courses both at graduate and undergraduate levels. Prior to coming to New Zealand, Kashif worked for Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology (SZABIST) Pakistan as Head of Institutional Research Department and Assistant Professor Management Sciences. He also served as Research Coordinator and Cluster Head for Research and Human Resource with Bahria University Islamabad.

### **The impact of Perceived External CSR and Perceived Internal CSR on employee job satisfaction with contingency role of Volunteering.**

*In the yesteryears, society in general and business organisations in particular, have increased their interest in corporate social responsibility. Businesses today are facing many challenges each day and the corporate social responsibility practices adopted by these businesses all over the world help overcome these challenges. Corporate social responsibility has contributed to influence the stakeholder's behavior and also gives an organisation competitive edge over others.*

*The existing research has focused on the perspective that perceived external CSR and perceived internal CSR influences employee outcomes. Employee perceptions on CSR activities directed at internal and external stakeholders on job satisfaction were tested. The research conducted in Pakistani's healthcare sector proved significant and positive results of the relation. The research also tested the impact of volunteering as a mediator, and self-esteem as a moderator between the independent variables; perceived internal and perceived external CSR and the dependent variable; job satisfaction. Research findings indicated that all CSR activities are important for an employee's job satisfaction and ultimately supports and enhances an organisation's position thereby developing stronger connections with stakeholders and improving their overall behavior at work.*

**Keywords:** Perceived internal corporate social responsibility, perceived external corporate social responsibility, job satisfaction, volunteering, self-esteem.

## Mahreen Baloch

*Business Lecturer, Faculty of Business, Aspire2 International*

Mahreen has recently completed her Masters of Business in HRM & Employment Relations from AUT, with a first class honours. She focuses on research that strongly links with New Zealand community and industry. Her research interests include workplace diversity and inclusion, immigration and diaspora studies mainly focusing on intersectionality between gender and identity in New Zealand workplace. Her findings brought a dimension to the study of women at work and their organisational contributions to New Zealand social enterprises. She is a member of Beta Gamma Sigma society.

## Dr Kaylie Chiu-Pih Tan

*Senior Business Lecturer and Research Coordinator,  
Faculty of Business, Aspire2 International, Auckland*

Dr Kaylie Chiu-Pih Tan holds a PhD in Industrial and Organisational Psychology (New Zealand), Master of Arts in Human Resource Management (USA), Bachelor of Arts in Human Resource Development with a minor in Social Science (USA), Professional Certificate in Organisational Change and Quality Improvement (USA), and Graduate Certificate in Antarctic Studies (New Zealand).

As a researcher, educator, administrator, and visiting scholar committed to international tertiary education, Kaylie's research interests include human resource management, innovations and organisational change, organizational behaviour, workplace learning and human adaptation in different settings.

### **A review of peer support and job stress among healthcare professionals: Implications on the healthcare professionals in New Zealand**

*Nursing is built on a strong foundation of innovation, demonstrated through the invention of a polar-area diagram in the past. Nurses work as change-agent and an innovator. They work together to identify innovative solutions to overcome difficult challenges and for their patients. Peer support refers to the functions an individual receives from other individuals at work that serve emotional/instrumental needs of an individual. Peer support may have a direct effect or buffering effect by lessening the strain that employees feel at work due to various work-related stressors. Four workplace stress sources themes were identified, such as gender; communication aspect; collectivism approach; mental and physical aspect.*

*Work environment is also another stress source. There was a lack of empirical evidence that supports peer support and job stress relationship among healthcare*

*professionals in New Zealand. Based on the review of current body of literature on nursing and organisational psychology, this secondary research aims to explore the relationship between peer support and job stress among healthcare professionals in New Zealand. The proposed review of the literature summarises the extended literature on occupational behaviors and workplace interventions particularly in the New Zealand context. Findings also clarify both direct and buffering effects of peer support on work stress process. Therefore, New Zealand healthcare management may focus on implementing policies that focus on strengthening peer support among nurses and stimulate a workplace culture based on collaboration and teamwork. This study calls for further research into gender and burnout among the healthcare professions, especially in New Zealand context*

**Keywords: Nurses, Healthcare Professionals, Peer Support, Job-Stress, New Zealand**

## Dr Shaheena Banu

*Programme Manager and Senior Lecturer, CIBT, Auckland*

Shaheena Banu, is an academician for more than a decade and has been teaching healthcare management for almost 5 years in Auckland. She has published several papers in scientific and educational field. This paper has utilised the Whara tapa Wha model to improve Learning outcomes by Aotearoa Mannakitanga to enable education, build hapori and sustainable learning.

### **Whare Tapa Wha model applied for Acculturation and well-being among International students in PTE classrooms**

*Acculturation is inculcating values and norms of one culture to another culture. International learners (IL) experience acculturative stress and difficulties with adjustment in the host country environment. New Zealand has been host to learners from many countries. Classroom environment is affected due to difficulties faced by languages, loneliness, discrimination and practical problems of adjustments among IL. How can tutors identify acculturation stressors and challenges, to support the learning process by use of technology, for collaboration, within the classroom, to improve learning outcomes?*

*A qualitative research study was conducted to explore the common acculturation stressors experienced by students. The study design consist 10 learners and 5 teachers, Whare Tapa Wha- well-being Maori model was used to develop a questionnaire to identify acculturation stressors. An in-depth interview of 30 minutes was conducted in the two groups. Transcription and coding was used to develop themes and compared in both groups. Thematic analysis and triangulation with secondary literature was applied to collate and confirm findings. A framework of recommendations and implementation plan using technology has been developed to identify challenges and to support better learning.*

## Dr Mina Cu

*Ph.D. candidate, Lincoln University, New Zealand*

Mina Cu is a Ph.D. candidate at Agribusiness and Commerce Faculty, Lincoln University, New Zealand. She is also a Doctor of Laws, International Studies track, granted by Renmin University of China in 2016. Her research interests include: Industrial Revolution 4.0, Bank stability and risks taking, Global Economics, International Cooperative Networks, Foreign Policies.

### **Telecommunication in The Future: Brain to Brain Communication**

*This paper proposes a brain-computer interface (BCI) telecommunication system which allows using human brainwaves to send text messages. Brain-computer interface (BCI) or brain-machine interface (BMI), is a novel technology which utilizes neurophysiological signals produced through the electrode activities inside the human brain to control the external devices (Birbaumer and Cohen, 2007). Experiments of using non-invasive method to connect human brains for the communicative purpose have mostly conducted in clinical tests with a lack of focusing on systematic illustrations accompanying BCI technology in the previous research. Furthermore, few studies have investigated in the applications of BCI in telecommunication. This paper firstly serves as a demonstration of BCI technology. It gives an insight into the mechanism of the up to date BCI system with the latest application in the direct brain to brain communication. Secondly, this paper proposes a theoretical paradigm of a telecommunication system which utilizes brainwaves to send text messages. The brainwaves telecommunication system consists of two major components such as BCI for decoding articulatory kinematic features from continuous neural activity and acoustic command-based operating system for sending text message.*

**Keywords:** Brain-computer interface (BCI), brain-to-brain interface (BTBI), brainwaves communication, brainwaves telecommunication.

## Dr Siham El-Kafafi

Senior Lecturer, Faculty of Business, Aspire2 International, Auckland

Siham El-Kafafi, comes with a wide overseas industrial and consultancy experience before becoming an academic for the past 18 years, teaching a wide range of business courses. As the owner of “Arrows Research Consultancy Limited”, Siham serves corporate and educational organisations since 2014.

Siham holds a PhD from The University of Waikato, a Masters in Adult Literacy and Numeracy Education from Auckland University of Technology, a Masters of Public Administration from the American University in Cairo and Bachelors of Art in English Literature (Honours) from Ain Shams University, Cairo.

As a solid researcher with publications in high-quality academic journals, book chapters, and conference proceedings, Siham is the editor, reviewer and referee on 8 international and national academic journals besides being on board of examiners and award committees.

Siham’s research interests include: Innovation in business and education, service quality, leadership, corporate governance, sustainability, corporate social responsibility, organisational culture, business ethics, and adult education pedagogy.

### **The Role of Peer Feedback in Augmenting Academic Literacies**

*Entering the tertiary education field requires students to adapt to new ways of learning, interacting, understanding, interpreting, acquiring new study skills and knowledge. In order to excel or even survive in this new territory, students need to understand the academic language manifested in the material provided through their readings and writing material i.e. academic literacy.*

*This research utilises the New Literacy Studies i.e. academic literacies (i.e. meaning making, identity, power, and authority) as its base in exploring how academic literacy writing skills can be enhanced through student peer feedback. This paper discusses the first part of the research conducted where researcher reflects on the process of various types of assessment tasks (i.e. diagnostic, formative and summative) developed to assist business students aiming at improving their academic writing skills via peer feedback.*

*A sequel of this research will discuss the actual case study and how utilising peer feedback contributed to enhancing students’ academic literacies demonstrated in their final assessment results.*

**Keywords: Academic Literacy, Peer Feedback, Writing Skills, Student Learning Process**

## Heba Farooq

*ICT Trainer, Aspire2 International*

Heba has a background in software development and is currently pursuing her Masters in Data Science at The University of Auckland. Her research interests are: Machine Learning, Human Computer Interaction and Education Technology.

## Dr Alaa Aljanaby

*Academic Manager, Faculty of IT, Aspire2 International*

Alaa has a PhD in Information Technology and has served as a lecturer and assistant professor at several colleges and universities, currently working as academic manager at Aspire2 International. He has published over 20 papers in international journals and conferences. His research interests include swarm intelligence, evolutionary computation, persuasive technology, opinion mining and ICT education.

## **Innovation in New Zealand's 21st Century Education: Exploring Technology Use**

*The emergence and advancement of various information communication technologies in the 21st century have shifted capabilities needed to adapt to the workforce. Traditional education is adapting to impart newly relevant skills in order to create tomorrow's decision makers, independent thinkers and problem solvers. The aim of this paper is to analyse the use of technology as a tool for innovation in 21st century education in the last five years in NZ. What is the role of technology Innovation in the modern education system? What are the tools used for innovation in the 21 st century education system?*

*A systematic review of literature was conducted to analyze relevant academic literature concerned with innovation in 21st century education. The paper presents a short discussion of the importance and relevance of innovation in teaching 21st century skills and competencies. The results show that technology is identified as a major tool for innovation in 21st century education. The current development of different technologies with regards to 21st century skills have been identified.*

## Dr Dipendra Ghimire

*Programme Leader, Faculty of Information Technology,  
Aspire2 International, Christchurch*

Dipendra studied the impact of the relationship between the customer and the software development team on the outcome of a software development project for his PhD. His study provided a framework to assist practitioners and researchers to understand and manage effective teamwork in Agile software development projects. Before completing his doctorate at Lincoln University, he completed his Master of Information Technology at Central Queensland University, Australia. He is currently working as the IT Programme leader at Aspire 2 International, Christchurch campus, and also preparing papers for publication. Dipendra is a recipient of the Best Paper Award in CITRENZ 2016 Conference.

### **Agile in Teaching and Learning: A Systematic Review**

*Agile methods are based on an iterative and incremental cycle of development where solutions and requirements are developed through collaboration and coordination between cross-functional teams and their customers. Agile method was used in software development when introduced. Agile has also been used in other areas such as project management, education and other sectors where there is teamwork. However, there is little knowledge on the use of Agile in the education sector. This paper presents a systematic review of Agile in education sectors. The systematic review seeks to evaluate and present the empirical findings on Agile in Teaching and learning to date and provide an overview of the topic researched, their findings and implications.*

## Hanse Gomes

*Academic Staff - Aspire2 International, Tauranga*

Hanse Gomes is a former student of Aspire2 international. She is currently a member of the academic staff Tauranga Campus, working as a Business Tutor. She has an MBA from Cardiff metropolitan University UK. She is a STEM champion and a team member for inaugural STEM festival Tauranga, a project of STEM Wana Trust. She was a co-founder of the two projects which won judges honorary award at Tauranga Start up weekend 2018 'Papcats' and 2019 'ESports Manaaki'. She is also an experienced professional in customer service and banking and finance. She has extensive experience in Offshore Banking and Corporate Banking. She has completed the Innovation and Enterprise Skills Development Programme by e-centre University of Massey. She is an Associate Member of The Institute of Bankers of Sri Lanka and a Life Member of The Trade Finance Association of Bankers.

### **What Do New Zealand Employers Look for: Skills or Knowledge?**

*The purpose of this study is to dig deep and reevaluate the kind of skills students will have to develop for future employment. The study is based on latest articles published in the area of educational trends and the information is presented after qualitative analysis of data. Many educators are involved in the debate - skills versus knowledge - which confuses lot of kids, youth and their parents when it comes to choosing their future career paths. Even the millennials are undecided on which path will secure a job they love. Today, many educators who believe in modern learning styles, agree that more than learning massive amounts of subject knowledge, it would be worthwhile to use the school time in learning how to become a good communicator, a great problem solver and an excellent critical thinker. For educationists and teachers, it is difficult to anticipate the fast changing world of work and what employers expect from the workforce. This study is an effort to find an answer to the question: no matter which skills will be useful for data literacy, will it ever be enough to surpass the value of a strong foundation of knowledge?*

**Keywords: NZ Career, Soft Skills, Critical Thinking, Problem Solver, Data Literacy**

## Dr Sangeeta Karmokar

*Senior Lecturer, School of Future Environments, Faculty of Design and Creative Technologies, Auckland University of Technology*

Sangeeta's practice-based research interest lies at the intersection of the entrepreneurship and design discipline with digital innovation and a special interest in social and women entrepreneurship. Sangeeta is the founder and chair of Women Entrepreneurship Centre, a not-for-profit organisation based in Auckland ([www.wencentre.org.nz](http://www.wencentre.org.nz)), working towards empowerment of women through inspiring, educating and entrepreneurial leadership.

As an academic and researcher, she is interested in fostering creative and critical thinking and providing design thinking opportunities to build innovative business entrepreneurship

## Dr Paula Ray

*Research Manager, Aspire2 International*

Dr Paula Ray is the Research Manager at Aspire2 International, responsible for staff output across three campuses – Auckland, Tauranga and Christchurch. An experienced communications and research specialist, she completed her PhD at the University of Auckland in 2014, on Facebook-based activism among women. She got her last master's degree on International Communication from the University of Leeds, UK; her first master's was on Political Science from the University of Calcutta, India. Before returning to academics, she was a senior journalist in India and the UK, a passion she currently pursues from NZ. A published author – both journalistic and academic – Paula is keen to write her first non-fiction this summer

## **Outside the Cubicle: Transforming Time, Space and Real World for Women**

*In the past two decades, we have seen exponential growth in digital space. Technological change has transformed our lives in areas such as health, travel, logistics, entertainment, medical, and biotechnology. Technological transformation has provided new visions for the future - from intelligent homes to genetic human modelling. This has drastically changed how we communicate, how we work, what we do and our vision for the future. The innovations this has led to are exciting, but also disruptive, because they create a market and a demand for products and services that did not exist before or are something we never imagined before. Technology has provided several tools and techniques to shift*

*the pattern of how we work. Research indicates that the use of flexible work environment improves work-life balance and reduces work pressure. Flexibility in the workplace is initiating modern working practices, especially for working mums and women in general. Although in recent years, flexible working schedules have gained considerable attention from certain organisations, women are often constrained by lack of flexible working hours which have negative impacts on their job satisfaction. If we consider technologies as tools or commodities or shared resources, how can we create a stronger framework between technologies and work-life balance to transform working time, space and life of working women? In this paper, we research how the disruptive nature of technology can build flexible working opportunities for women, explore a technology-based framework to create work-life balance, promote tools and techniques that facilitate flexible working and provide recommendations to encourage work-life balance in the workplace.*

**Keywords: Transformative Technology, Working Women, Work-life Balance, Flexible Hours**

## Richard Midgley

*Programme Leader, Graduate Diploma of Applied Management,  
Faculty of Business, Aspire2 International, Auckland*

Richard Midgley holds a Masters in Computing and Post Graduate Qualifications in Management, Education and Coaching obtained whilst working for 10 years as a UK Senior University Lecturer, Programme Leader and Course Developer. Currently, he's the Programme Leader for the Graduate Diploma in Applied Management in the Faculty of Business and Technology at Aspire2 International. His research interests and consultancy are involved in making small business more productive using contemporary methodologies through emerging disruptive tools, technologies and techniques. He also teaches at Level 7 in the areas of operations, project and applied management.

### **A Review of Canvas Tools That Support Business Model Innovation for Sustainability**

*Joyce and Paquin's (2016) triple layered business model canvas allows an organisation to examine its business model in terms of sustainability. It augments Osterwalder and Pigneur's (2010) original business model canvas by adding two layers: a social layer viewed from the perspective of an organisation's stakeholders and an environmental lifecycle layer. Holistically all three layers combine to show how an organisation adds value in terms of the classical 3P's (planet, people and profit) or 3E's (earth, everyone and equity) perspectives of corporate social responsibility.*

*This literature review will investigate and analyse how global organisations have incorporated a triple bottom line approach into their existing business model through the lens of the triple layered business model canvas. The results of the literature review will then feed into further research on the application of a triple bottom line approach to assist small-to-medium New Zealand organisations move towards a more holistic, integrated and innovative sustainable business model. The research has the potential to extend beyond the initial scope to propose an original four layered business model canvas aligned to quadruple bottom line sustainability reporting.*

## Dr Latha Karthigaa Murugesan

Lecturer, Faculty of Engineering, Aspire2 International

Latha is the CEO and founder of Brandupwise Limited, a Digital Marketing Consultancy in Auckland, New Zealand. She finished her PhD in Software Engineering at The University of Auckland in 2018. Latha's ambition is to use her technical and research skills to run multiple businesses around the world that solves real-life problems. Latha is very passionate about what she does, and is always interested in exploring the limits of her brain. Being vibrant and active, Latha's goal is to become the richest person in the world!

### Experiences of an Engineer Entrepreneur

*In today's world, there is a great hype for a person becoming an entrepreneur. There are untold stories of the struggles, perseverance, passion, attitude, etc. that happens in the life of an entrepreneur. Being an entrepreneur, who has completed PhD in Software Engineering, the author shares her experience about her journey towards success.*

## Dr Narayan Nepal

ICT Trainer, Aspire2 International, Christchurch

Narayan Nepal completed his PhD in Electrical and Computer Engineering from the University of Canterbury, Christchurch, New Zealand. His research interest lies in the general areas of wireless communications, signal processing techniques, Cognitive Radio (CR), Internet of Things (IoT) and 5G communications. A recipient of the University of Canterbury Doctoral scholarship award, Narayan Nepal published his research articles in journals, and conference papers in high standard journals like IEEE and IET communications. He is serving as a reviewer for several international journals and conferences. Currently, Narayan is working as an ICT trainer at Aspire2 International, Christchurch, New Zealand. Prior to coming to New Zealand, Narayan worked for Kathmandu Engineering College, Nepal, as a research coordinator and a lecturer.

### **Cognitive Radio as a Promising Technology to support massive deployment of Internet of Things systems**

*Internet of Things (IoT) deals with the interconnection of everyday physical devices which can communicate with each other over the internet. IoT systems have earned huge popularity and growth lately due to their immense number of applications in different fields. In order to support massive deployment of IoT systems, the radio spectrum must be used efficiently. Majority of the short range IoT devices use unlicensed industrial, scientific and medical (ISM) radio bands. It will be very difficult to allocate spectrum band with the growing number of devices as these bands will become congested resulting in a spectrum scarcity problem. Cognitive Radio (CR) alleviates this spectrum scarcity problem by opportunistically utilizing licensed/unlicensed radio spectrum whenever it is sensed free. Thus, CR integrated with IoT systems will allow massive IoT deployment effectively by providing huge spectrum opportunities to IoT devices. In this paper, we present the general background on CR and IoT with some potential applications. We discuss several open issues, research challenges related to the use of CR for IoT systems.*

## Dr Chandra Sharma Poudyal

*Business Lecturer, NZSE New Zealand School of Education*

I am currently working as a business lecturer at NZSE New Zealand School of Education. I completed doctorate in educational management from the University of Waikato in the year 2016. In my PhD research, I explore privatisation of education in the changing political scenario of country.

I have published my research in different academic journals including policy future in education from sage publication and journal of education and research. In addition to publishing my research, I have extensively presented in different conferences across the world which includes workplace bullying at Chapman University in California, USA; managing schools in times of political turmoil at Australian Council of Educational Leadership and micro/macro political crossroad of educational leadership at Educational Philosophy and Theory Conference in Australia.

## Dr Sanjeev Acharya

*Business Lecturer, ICL Graduate Business School*

I want to introduce myself as a learner and an educator. I earned my PhD from the University of Waikato Management School. My research interest includes corporate governance, green banking and sustainable finance. Before coming to New Zealand, I worked as a senior research and development manager in the derivative market of Nepal. I have almost ten years of teaching experience in New Zealand and Nepal. I always look to brush up my academic and research skills and share it with others. Following that path, I have chosen my career in the field of academia.

### **Private Tertiary education sector in New Zealand: Challenges and possible future directions**

*Government of different countries of the world including New Zealand have been adopting the neoliberal policy in education. This has enhanced the privatisation of education in almost all countries of the world. Private Tertiary Education (PTE) in New Zealand represents an example of privatisation of education in New Zealand. Recent government statistics suggest that this PTE contribute about 24% of tertiary enrolment. However, recent incidents of closure of many PTEs in NZ by New Zealand Qualification Authority (NZQA) clearly indicates the compliance issues in their delivery and operation. Some of the other issues seen in the PTE sectors includes lack of timely review of curriculum, adoption of traditional delivery mechanism, lack of research oriented human resources and adoption of business approach by management instead of academic approach.*

*Despite all these challenges, New Zealand being one of peaceful developed country with favourable immigration policy for the students of higher education, there seems to be several opportunities for growth and expansion of PTEs. This research is an attempt to better understand the challenges faced by existing PTEs in New Zealand and their future direction.*

*This research uses qualitative as well as quantitative method to collect the data and understand the perspective of various stakeholders of PTEs. The data for the study will be collected from students, teachers, administration staff, agents and top management team of several PTEs by using survey method. Based on the result provided by quantitative research it will further explore stakeholders' opinion on the future direction and provides policy recommendation.*

**Keywords: PTEs, New Zealand, Tertiary Education, Privatization**

## Dr Faisal Qadeer Qureshi

*Programme Leader, Faculty of Business, Aspire2 International*

Dr Faisal Qadeer Qureshi is a seasoned academic and manager in tertiary and higher education institutions. Prior to settling down in New Zealand, he was working as Director, Academics and Planning, Asian Institute of Fashion Design in Pakistan. He also served as Head of Department, Graduate Studies, and Cluster Head for Marketing and Management with Iqra University (Pakistan), where he was also a research supervisor for post graduate studies. He is the author / co-author of several research papers.

### **Factors Influencing Marketing Programme Standardisation for Multinational and Multidomestic Firms**

*This study was carried out with the premise that a number of variables have the potential to create an impact on programme standardisation of multinational and multi-domestic companies. The objective was to examine the effects of various factors on standardisation decisions in the marketing programme of multinational and multi-domestic companies. The variables studied were market development, diversification, market intermediaries, market dynamics, environmental forces, obsolescence, market position, and nature of the product. Eight hypotheses were formulated to test the impact of each dependent variable on marketing programme standardization.*

*The term 'marketing programme' comprises various facets of marketing mix, which can be classified as product design, product positioning, brand name, packaging, retail price, basic advertising message, creative expression, sales promotion, media allocation, role of sales force, management of sales force, role of middlemen, type of retail outlets, and customer service.*

*In order to segregate variables with a higher impact component, factor analysis was applied, which resulted in identifying eight variables. This was followed by binary logistics to understand the significance of these variables. A sample of 56 subjects, consisting of business and functional level managers working for multinational and multi-domestic companies, was taken through judgement sampling.*

*The research concluded that market development, diversification, environment forces, and market intermediaries have a significant impact in formulating and implementing a strategic marketing programme for multinational and multi-domestic firms.*

**Keywords: Multinational, Multi-domestic, Marketing Programme Standardisation**

## Dr Syed M Shahid

*Programme Leader, Health Services Management.  
Aspire2 International*

Syed M. Shahid, PhD (Basic Health), is a Postdoctoral Researcher at FM&HS, University of Auckland on Auckland Cancer Society's research project. He has more than 10 years of academic administration, teaching and research experience in the field of health and disease. Dr. Shahid has edited 3 books and published 45 research papers in journals of international repute, supervised 4 PhD and 11 MSc students in the field of health and disease and has presented his academic and research work at more than 60 national and international conferences, symposia and seminars.

### **Modern Tools & Techniques in Management of Health & Disease: Promises & Challenges**

*Biological systems are complex, dynamic, and often difficult to predict. The basic information necessary to construct and manage a living organism is contained within its genome, which molecular and cellular processes transform into living biological reality. Our understanding of both the underlying data and the transformative processes may be represented by systemic and molecular mechanisms, in the form of databases that may be stored, curated, analysed and queried using a variety of tools and techniques. In its search for the causes of disease, recent innovations in health and medicine have now advanced to the micro- and even nano- scales.*

*Medical genetics, genomics, proteomics and metabolomics are opening ways to a new and deeper understanding of bodily processes and are providing the tools for more precisely targeted interventions when their function is disturbed. For the first time in history, diagnosis and therapy are meeting on a common ground.*

*Modern tools and techniques have potential for speeding up the diagnosis, prognosis, management, and drug discovery process thus reducing the healthcare costs, as well as changing the way of management, treatment and cure for health related problems. On the other hand, the health and disease management procedures face challenges including (but not limited) to cost and financial issues, social and ethical considerations, technical expertise, training and development shortages and public perception.*

## Dr Maria Umali

*Lecturer and Research Supervisor, ICL Graduate Business School*

Dr. Maria Umali, a seasoned academic, successfully integrates research and practice in her teaching. Her researches inform her teaching and enhance her business and professional practice. Maria, as an entrepreneur, heads their family business in transportation, real estate and education.

## Dr Yu Chen

*Graduate, Master of Business Informatics,  
ICL Graduate Business School, New Zealand*

Dr. Yu Chen earned her Master of Business Informatics from ICL Graduate Business School in New Zealand. Before her career shift, she has a master's degree in clinical medicine from Zunyi University in China. For 13 years as associate chief physician, she published 14 multiple medical researches.

### **Customer Satisfaction and Online Reviews of New Zealand Car Rental industry: harnessing digital disruption towards innovation**

*It is important for organizations to embrace digital disruption to achieve competitive advantage. Understanding the disruption enables companies to keep their existing customers satisfied and create opportunities for new customers by employing customer data to new innovative ways. This research aims to study factors related to customer satisfaction in the New Zealand car rental industry 500 online reviews of Apex car rental company customers on Google and product review sites were collected and qualitatively analyzed. Based on the five dimensions (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) of the SERVQUAL model, these online reviews are divided into 10 factors. Then, through quantitative analysis, the factors related to Apex customer satisfaction are analyzed. Most customers are satisfied with the service provided by Apex. Customer satisfaction has a strong positive correlation with Tangibles, Reliability, Responsiveness, Assurance, and Empathy. SERVQUAL was validated. Personalized service is most closely related to customer satisfaction in the car rental industry. Customer satisfaction is moderately negatively correlated with the time of response to calls and emails and the time of the company to provide and handle repair services. The service quality evaluation system (including five dimensions, 10 factors) suitable for the car rental industry was first constructed, which can provide reasonable guidance and suggestions for innovating the service quality of the car rental industry.*

**Keywords:** car rental industry, customer satisfaction, innovation, online reviews, SERVQUAL

## POSTER PRESENTATIONS

### Dr Kaylie Chiu-Pih Tan

*Senior Business Lecturer and Research Coordinator, Faculty of Business, Aspire2 International, Auckland*

### Shraddha Shrestha

*Student of Diploma in Business Management, Faculty of Business, Aspire2 International, Auckland*

### Anamica Chhetri

*Student of Diploma in Business Management, Faculty of Business, Aspire2 International, Auckland*

### **Innovations and Their Implications on Small-to-Medium Enterprises (SMEs) in New Zealand**

*Innovation plays a critical role in the success of an organisation. The main objective of the present study is to investigate how innovation contributed to a range of small-to-medium enterprises (SMEs) in New Zealand between 2010 and 2019. Based on the findings, four main sources of innovation that triggered the changes were found: 1) the unexpected success, 2) the incongruity between a reality as it actually is and as it is assumed to be, 3) innovation based on the needs exists within the process of an organisation, and 4) the changes in industry structure and market structure that offer exceptional innovation opportunities. Based on the analysis, potential implications of these sources of innovation were discussed in light of how they influenced these SMEs in New Zealand.*

**Keywords: Innovations, SMEs, New Zealand**

## Natasha Martin

*Business Lecturer and Moderator,  
Faculty of Business, Aspire2 International, Auckland*

## Nicole Klien Peralta

*Student of Graduate Diploma in Applied Management,  
Faculty of Business, Aspire2 International, Auckland*

## John Peter Suello

*Student of Graduate Diploma in Applied Management,  
Faculty of Business, Aspire2 International, Auckland*

## Aimee Casinillo

*Student of Graduate Diploma in Applied Management,  
Faculty of Business, Aspire2 International, Auckland*

### **Experiential Marketing for High-End New Zealand Tourism**

*Through immersive technological advancement, the accommodation sector in the tourism industry is no longer constrained by limited advertising techniques to promote their services to travellers. Traditionally, a guest could view accommodation services advertised in a 2D photo format through printed travel brochures and tourism websites. But, travellers would need to research extensively to make informed travel decisions. Now, with the use of experiential marketing techniques, travellers can immerse themselves and experience the features of a room in 3D format. Rather than reading descriptions, the traveller can be virtually transported to a hotel room and visualise if the features or services provided meet their needs, wants and expectations before making a final decision. Using the Consumer Decision-Making Process Model proposed by Engel, Blackwell and Kollat (1968), the aim of this study is to investigate and demonstrate the application of Experiential Marketing through the use of Augmented and Virtual Reality in advertising New Zealand accommodation services and enhancing the luxury travellers' pre-purchase experience. Based on the findings, future discussions will focus on the application of Experiential Marketing techniques such as Augmented and Virtual Reality for other sectors in the Tourism and Hospitality industry.*

**Keywords: Experiential Marketing, High-End New Zealand Tourism, Consumer Decision-Making Process Model, Augmented and Virtual Reality**

## Sonal Shrestha

Student of Diploma in Business Management,  
Faculty of Business, Aspire2 International, Auckland

## Sophia Zeb

Senior Business Lecturer and Moderator,  
Faculty of Business, Aspire2 International, Auckland

### **Customer Value Proposition (CVP) and its Implications on Innovative Marketing Practices for Operating a New Café**

*The primary purpose of this study is to investigate the feasibility of opening a new café in Auckland city by making use of various technological innovations. Several aspects were examined in this context, including market segmentation, market environment, and customer value proposition (CVP). Based on the findings, the needs of the target customers were identified as 'rational value for money', 'service focus', 'health and diet consciousness'. To better satisfy the needs of these customers, customer profile which includes client preferences, user frequency, demographics, as well as media preferences, were taken into account. Using the customer value proposition (CVP) framework suggested by Ray Kordupleski (1980), functional value, emotional value, economic value, symbolic value, and end value were suggested as essential values. The new café can provide these essential values to meet client needs. For instance, advanced technologies like an innovative mobile app can be applied in marketing practices along with the integration of (CVP) framework to help an entrepreneur establish a new café in Auckland city.*

**Keywords:** Customer Value proposition, Innovative marketing practices

## Angelo Lazaro

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## Cassio Magalhaes dol Reis

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Faculty of Information Technology, Aspire2 International, Auckland*

## Maksim Maslennikov

*Student of Graduate Diploma in Information Technology,  
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## Niket Vithani

*Student of Graduate Diploma in Information Technology,  
Faculty of Information Technology, Aspire2 International, Auckland*

## Arthur Lewis

*Lecturer, Faculty of Information Technology, Aspire2 International, Auckland*

### **Web Application: GradForce – Skills Testing**

*GradForce is an Auckland based start-up business which provides an online platform to connect employers with the best graduate talent available in the market. 'GradForce Skills Testing' is an online platform that makes it possible for employers to identify the appropriate candidate for any job role. Using this platform candidates who apply for a given position will have their skillset validated against a test provided by the online platform. The results of this test rates the candidate's skill set specific to a certain area from a spectrum high to low. This makes it easier for employers to select the most appropriate candidate for the next stages in the recruitment process.*

**Keywords: Gradforce, Skills Testing, Online Platform, Recruitment**

## Barbara Campos

*Student of Diploma in Computing,  
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## Daniel Araujo

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Faculty of Information Technology,Aspire2 International, Auckland*

## Danu Mewan

*Student of Diploma in Computing,  
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## Naguleswaran Paskeran

*Student of Graduate Diploma in Information Technology,  
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## Arthur Lewis

*ICT Trainer, Faculty of Information Technology,Aspire2 International, Auckland*

### **Web Application: IT Policy Manager**

*'The IT Psychiatrist' is a consultancy based in Auckland, New Zealand and specializes in a wide range of services for corporates and businesses. The project IT Policy Manager, is to be a web-based portal that allows companies to purchase, customize, maintain, and download IT Policies. These IT Policies define how a business' IT services will approach security, how employees and clients are to approach security, and how certain situations will be treated. The aim of this web portal is to analyse a business' needs based on a set of questions and then automatically generate and recommend suitable policies that cater to these needs.*

**Keywords: IT Policy, IT Security, Business, Web Portal**

## Gurinder Nanda

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## Maria Medina

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## Maryam Khaleghparast

*Student of Graduate Diploma in Information Technology,  
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## Veronika Koreiba

*Student of Graduate Diploma in Information Technology,  
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## Arthur Lewis

*ICT Trainer, Faculty of Information Technology,Aspire2 International, Auckland*

### **Web Application: Gradforce – Outsource a Job**

*GradForce is an Auckland based start-up business which provides an online platform for employers. This online platform helps employers outsource the job recruitment process for IT and Business graduates. The GradForce web application is aimed to create custom quotes for IT and Business jobs that employers want to advertise. To request a service, employers should just fill in a short web form or directly call the Gradforce admin. Following this a custom the quote is created according to the employer's request. In other words, the Gradforce web application provides an easy and personalised process to outsource a job for any employer.*

**Keywords:** Gradforce, Outsource, IT, Business, Web Application, Quote

## Dr Muhammad Faraz Shaikh

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## Tianbai Yu

*Teaching Assistant, Faculty of Faculty of Engineering,Aspire2 International, Auckland*

## Nam-kyu Yu

*Student of New Zealand Diploma in Electrical Engineering  
Faculty of Faculty of Engineering,Aspire2 International, Auckland*

## Ataberk Erdi

*Student of New Zealand Diploma in Electrical Engineering  
Faculty of Faculty of Engineering,Aspire2 International, Auckland*

### **PLC Based Automated Storage/Retrieval Robot**

*Most of the warehouses are operated by human workers from warehousing to shipment of goods. The staffs in the field must record information when it comes to the slot number of shelve and which product has loaded onto after storage. In the process of retrieval, they need to search the item's present place and inventory status. Despite the simple procedure, there lies redundancies in the operation.*

*To overcome the issues, we developed an Automated Storage/Retrieval Robot (AS/RR). This robot can load and unload volumes of products continuously. AS/RR can travel within the range of the shelf with faster speed and accurate motion and deliver the items to place from pick-up point onto any point of shelf. We added memory system to the robot, through which the AS/RR can track the position of the products stored. Moreover, user can check the inventory status at a look through Human-Machine Interface (HMI) linked to the robot. The AS/RR was programmed based on PLC, so it can be flexibly and easily modified to fulfil the need of different stacking arrangements.*

*The test run of the developed AS/RR was quite successful with accurate positioning and proper driving speed.*

## Dr Muhammad Faraz Shaikh

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## Tianbai Yu

*Teaching Assistant, Faculty of Faculty of Engineering, Aspire2 International, Auckland*

## Manish Kumar Dogra

*Student of New Zealand Diploma in Electrical Engineering  
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## Rtayus Kumar

*Student of New Zealand Diploma in Electrical Engineering  
Faculty of Faculty of Engineering, Aspire2 International, Auckland*

## Harpreet Singh

*Student of New Zealand Diploma in Electrical Engineering  
Faculty of Faculty of Engineering, Aspire2 International, Auckland*

### **Automated Conveyor belt and product sorting system for FMCG industry**

*Conveyer belt is an automatic transporting machine commonly used in FMCG industries on packaging lines while carrying out products counting and sorting based on size and weight.*

*The real systems are very big and heavy, and not readily available to students to learn and have hands on experience prior working on the real systems in industry.*

*This project is therefore brought up with this idea to build a small but fully functional conveyer belt system. The small system can perform same tasks as larger systems with products small in size and weight.*

*The predesign was done in cad software fusion 360, 3D printer was used to print the modelled design. Adjustable bearing and pulley systems were made to control the tension of the belt. The control system was driven by Arduino microcontroller and been tested successfully. The real industrial weight sensor was utilised and calibrated for the purpose. The system sorted products based on weight with 100% accuracy.*

## Dr Muhammad Faraz Shaikh

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## The Thanh Long

*Student of New Zealand Diploma in Electrical Engineering  
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## Automated spillways control in Dam

*Dams are vital components for success in the agricultural sector as well as in renewable energy generation through hydro power. Since dams contain such large volumes of water, structures such as spillways and flood gates are incorporated to control river flow and flooding. A significant issue with a vast majority of the dams is that the spillways are located on the very top of the dam, thereby only working to its full capacity when water levels reach critical levels. The afore-mentioned issue has evidently resulted in severe flooding as per recent report.*

*Therefore, to address this pressing issue, we designed an automated spillway system that not only functions when the water levels reach at upper level critical stage but also operates when the water levels reach a concerning lower level. In the prototype, an automated spillway system is constructed at the mid-section of the dam acting as a primary water outlet using controlling system (flow controlling valves controlled by Arduino). Accidents from floods are also predicted according to the dam's height, storage, material and spillway data from the system.*

## Dr Muhammad Faraz Shaikh

*Academic Manager, Faculty of Faculty of Engineering, Aspire2 International, Auckland*

## Tianbai Yu

*Teaching Assistant, Faculty of Faculty of Engineering, Aspire2 International, Auckland*

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### **PLC based Automated Guided Vehicle**

*Automated Guided Vehicle (AGV) is an autonomous vehicle used in factories and warehouses that can transfer materials from loading point to unloading point without any human help. AGV can deliver loads faster and more accurately than human, so it can reduce labour cost and time.*

*Most AGVs that are commonly used in industries are equipped with navigation sensors such as magnetic tapes and laser sensors to navigate. However, it will have limitations in movement when the driving paths are changed unless reinstallation of magnetic tapes and/or laser sensors that takes time and costs.*

*To overcome this issue, we developed an Automated Guided Vehicle (AGV) driving itself along the programmed paths without navigation sensors and carrying up to 20 kg including its body weight. Paths can be flexibly and easily modified in a main controller, Programmable Logic Controller (PLC).*

*The test run of the developed AGV was quite successful with error in positioning within 20mm range.*

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