



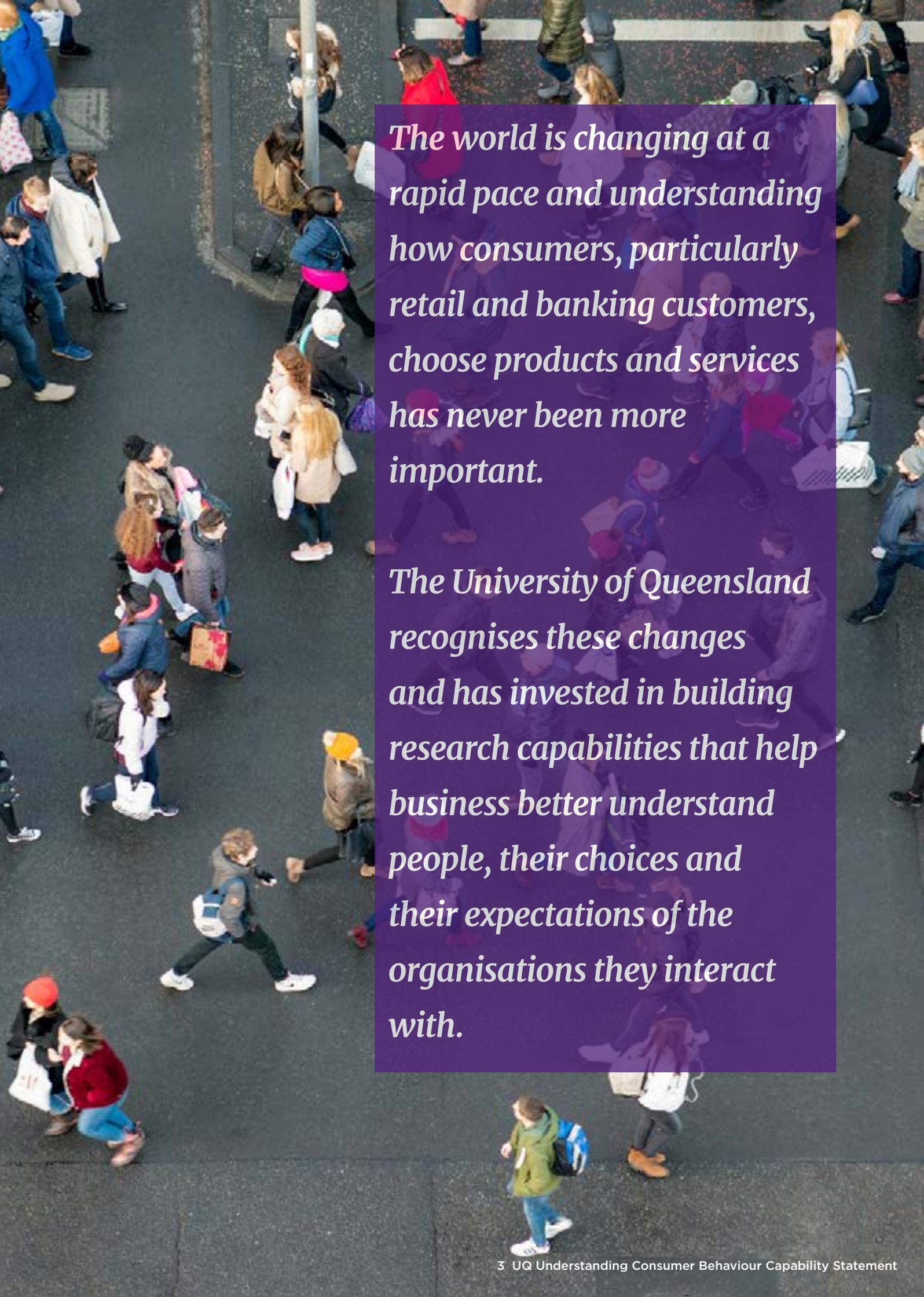
THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

CREATE CHANGE

# UNDERSTANDING CONSUMER BEHAVIOUR CAPABILITY STATEMENT







*The world is changing at a rapid pace and understanding how consumers, particularly retail and banking customers, choose products and services has never been more important.*

*The University of Queensland recognises these changes and has invested in building research capabilities that help business better understand people, their choices and their expectations of the organisations they interact with.*

# Table of Contents

<b>Our Capability</b>	<b>5</b>
<b>Lens 1: Consumer preference and decision making</b>	<b>6</b>
<b>Lens 2: Security, Privacy and Trust</b>	<b>10</b>
<b>Lens 3: Consumer experience design and metrics</b>	<b>14</b>
<b>Research Equipment</b>	<b>18</b>
<b>Our People</b>	<b>20</b>

# Our Capability

The University of Queensland (UQ) has been a recognised leader in consumer behaviour research for over 10 years. Our researchers are well positioned to collaborate on projects to understand and influence consumer trends, expectations and behaviour.

## Lens 1: Consumer preferences and decision making

A deeper understanding of consumer trends and behaviour is essential for business prosperity. Changing socio-demographics mean that consumers are increasingly aware of their impact on health, the environment and future generations, transforming the way people shop. UQ researchers are investigating how marketing campaigns, pricing and packaging impact how people make their purchasing decisions.

## Lens 2: Security, privacy and trust

The onset of COVID-19, together with technological advances such as Artificial Intelligence (AI) and the use of Big Data, have provided a unique opportunity for businesses to better 'tap into' a larger pool of customers with targeted products and services. Businesses must increasingly provide fit-for-purpose products, while meeting customer expectations around security and protection of their personal information. UQ researchers understand consumer concerns and are researching the use of AI to detect and mitigate cyber-attacks, digital transactions and market users, and trust and ethics challenges in our modern society.

## Lens 3: Consumer experience design and metrics

In an ever-changing, time-poor world, it can be challenging for business to design engaging marketing material that 'cuts through'. Capturing the attention of consumers requires a deep understanding of their sub-conscious thoughts and how people process information. UQ has novel equipment that can be used in laboratory and field settings to test ways to design, improve and measure the service experience. Our research enables companies to collect suitable data, identify market segments, and target products and marketing to their needs.



2<sup>nd</sup> in the world for  
hospitality, leisure, sport  
and tourism



3<sup>rd</sup> globally for efficiency  
and productivity  
research in economics



23<sup>rd</sup> globally for  
psychology research



UQ MBA ranked 2<sup>nd</sup> in  
Asia-Pacific



# Lens 1: Consumer preference and decision making

Every day, every one of us makes decisions that we don't even realise we are making. There are big decisions that can feel confusing and overwhelming – such as financial and retirement planning considerations – but also smaller choices, such as the clothes we wear and what we eat. Each of these choices influences the purchasing of a diverse range of products and services, especially in the retail, banking and financial industries.

UQ researchers are investigating how people make decisions – and the impact of confusion and inattention – in a range of settings including:

- Purchasing mobile phones
- Taking up health services
- Selecting insurance and retirement plans.

Researchers utilise a range of techniques including lab and field experiments, surveys, big data analysis and the development of online platforms to predict how product packaging and labelling, marketing, and price psychological impact how people make decisions to purchase new products.

# Lens 1: Consumer preference and decision making

## In Focus: Tackling confusion and inattention

Today's consumer faces an incredible proliferation of options as well as increasingly complex products. There is evidence that consumers can be overwhelmed by the choices they face leading to decision inertia, poor decisions, or inattention in relation to the decision itself. For example, many Australians are passive in managing their superannuation accounts often remaining in the default option, while others continue to spend more than they should on products such as electricity, phone plans and insurance policies. Mistakes regarding these important services can have costly long-term consequences for consumers, as well as representing lost opportunities for businesses.

Custom-designed experiments that analyse consumer decision-making can be undertaken in a state-of-the-art facility in the [UQ Behavioural and Economic Science Cluster Laboratory](#).

This controlled environment enables researchers to test and manipulate external factors, and evaluate associated consumer decision-making in a low cost and low risk environment.

- Different pricing structures affect the quality of consumer decision making in the context of choosing a mobile phone plan. Researchers discovered that consumers who were presented with complex multipart tariffs pricing structures (such as those common in utility and telecommunication markets) were more likely to make poor decisions – while customers presented with less complex prices made better financial decisions.

Researchers, led by [Associate Professor Lana Friesen](#), School of Economics, tested five possible interventions to better inform consumer decision making including training to improve consumer literacy. They found that helping customers to better understand plan costs significantly improved decision quality; providing information about plan value assisted inexperienced decision makers; and salient visual feedback helped experienced decision makers. Such results provide useful insights for both regulators and companies seeking to retain satisfied customers.

- Consumer confusion and ignoring important decisions can have significant implications relating to matters such as superannuation and retirement planning. [Dr Kenan Kalayci](#) and [Professor Daniel Zizzo](#), School of Economics, found that identifying and implementing smart, more appropriate defaults can address this problem.

## *Understanding how social identity and social norms can be used to support the purchase of sustainable products and services such as clothing, food and investment products is crucial.*

### In Focus: Improving outcomes for customers

At the societal or group level, the failure to engage consumers represents the inability of policy makers, communities and organisations to build and capitalise on the skills and resources that people bring to the groups to which they belong – that is, a failure to manage people's social identities effectively and successfully. The work that researchers in the [UQ School of Psychology's Social Identity and Groups Network \(SIGN\)](#) have been conducting since 2010 is based on the premise that it is impossible to enhance consumer decision making by focusing solely on material resources and financial incentives.

Improving consumer outcomes – and, in turn, enhancing opportunities for business – depends on building an understanding of how change is brought about through the interaction between economic factors and group values. SIGN researchers [Professor Alexander Haslam](#) and [Professor Jolanda Jetten](#) have found this involves developing an understanding of both the way identity shapes decision-making and the way identities can be managed to improve consumer decision-making.

In collaboration with industry partners, SIGN has analysed and improved processes within the workers' compensation industry, with a particular focus on vulnerable workers. The research within community, educational and organisational domains examines group dynamics, socio-structural variables and social psychological processes that shape decision-making.

Researchers used diverse methodologies including:

- Controlled experiments to establish the causal status of key processes
- Large-scale longitudinal research to examine trends and developments
- Field research to assess the efficacy of key interventions.

# Lens 1: Consumer preference and decision making

## In Focus: Insurance and retirement decision making

Health insurance and life insurance are respectively worth \$25 billion and \$32 billion annually to the Australian economy. Choosing the right insurance funds is an important and costly decision for consumers, yet it is extremely complex and can be subject to a degree of ambiguity. In addition to decision 'under ambiguity' (or that uncertainty which cannot be quantified in advance), consumer choices over many products are made 'under risks' (uncertainty which may be quantified). Some purchases, such as the purchase of insurance, are expressly taken to manage some of those risks. Understanding the sources of cognitive bias that arise in relation to both large and small purchases is the focus of both psychology and behavioural economics.

Private health insurance and its regulation; the sources of risk-taking problems of asymmetric information in insurance markets; and the relationship between injury compensation and health outcomes are focus areas for the Centre for the Business and Economics of Health (CBEH). Researchers from CBEH have considerable expertise in the fields of insurance economics and behavioural economics that can be used with insurance consumers across the health, banking, finance and insurance sectors.

The economics of disability and insurance, compensable injury compensation schemes and the determinants of health are research interests for Professor Luke Connelly, CBEH. He has navigated the impact of COVID-19 on insurance, including the decline of private health insurance and, conversely, the surge of people wanting to insure against the effects of future pandemics.

Dr Jonas Fooker, CBEH, researches behavioural economics in health. His research focuses on topics of economic decisions and preferences of older adults, the market for private health insurance in Australia and the role of risk in agency relationships with asymmetric information. His work has led to healthcare reform and changes in the ways the government communicates to individual consumers.

Researchers are also investigating the effect of risk on agency relationships, such as between financial agents and investors over the life course. Increasingly, Australian jurisdictions expect businesses to take reasonable steps to ensure they do not 'oversell' financial products to ill-informed clients. Increasingly, businesses have a responsibility to ensure they are providing appropriate services and not substantially affecting consumer's retirement planning and financial decision making.

*UQ has Australia's only research centre dedicated to the business and economics of health, the Centre for the Business and Economics of Health.*

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<sup>1</sup> Yeoh, Y.H. (2020) Health Insurance in Australia. Australia Industry Report K6321. IBIS World: Sydney. <https://my.ibisworld.com/au/en/industry/k6321/industry-at-a-glance>; Yeoh, Y.H. (2020) Life Insurance in Australia. Australia Industry Report K6310. IBIS World: Sydney. <https://my.ibisworld.com/au/en/industry/k6310/industry-at-a-glance>

# Lens 1: Consumer preference and decision making



# Lens 2: Security, privacy and trust

More than ever, people are doing business online, but equally, there are now more data privacy and security concerns than ever before. If people don't trust a company's cyber security they can easily delete their apps, abandon their websites and, ultimately, shop elsewhere.

In Australia and elsewhere, laws and regulations have been established to support consumers and clarify data ownership, yet international laws are struggling to address liability, ownership and privacy challenges of hosting data in cloud computing environments across several jurisdictions. Good governance and policies around cyber resilience are crucial for preventing data breaches, and emerging blockchain technologies are providing practical support and reassurance for companies and their consumers.



*“One of the only ways to properly evaluate a company’s cyber security protection is to undertake test attack scenarios. UQ can conduct advanced test attacks, giving you and your customers confidence.”*

*Professor Ryan Ko*

Understanding trust in AI and cloud computing environments, and engineering privacy-enhancing solutions for data sharing and machine learning are vital for business. UQ’s Director of [Cyber Security Professor Ryan Ko](#) is recognised as a world leader in the field, where he has a strong focus on returning control of data to cloud computing users.

Professor Ko, along with other UQ researchers, is helping organisations to understand trust in artificial intelligence and cloud computing environments, and engineering privacy-enhancing solutions for collaborative data sharing and machine learning.

Researchers can access private computing server infrastructure to evaluate cyber security initiatives and undertake test attack scenarios. UQ’s [School of Information Technology and Electrical Engineering](#) (ITEE) can provide advice related to legal implications of security and automated decision-making tools. Further, UQ undertakes research in blockchain and data provenance issues, especially in retail, financial payment and supply chain settings. Researchers design and test ways to encourage consumers to act safely in online environments. They can also advise on software security assessment and ensure alignment to international standards such as the Common Criteria and relevant ISO standards.

### In Focus: Managing data privacy and security

In 2017 the Equifax data breach led to the credit histories and personal information of 163 million people being leaked; the Cambridge Analytica data scandal resulted in the unauthorised access and sale of consumer data on an extraordinary scale. The global increase in cloud computing adoption has led to companies actively porting and storing consumer data in cloud-based software-as-a-service (e.g. Salesforce, Xero and Dropbox) or infrastructure-as-a-service (e.g. Amazon Web Services S3). Along with these trends is the increased reliance on a third party for business IT needs (e.g. electronic payments) and the increasing loss of control over the consumer data these businesses are handling.

Through Europe’s General Data Protection Regulations; an increased focus on consumer data rights by the Office of the Australian Information Commissioner (OAIC); and the recent draft of the China Personal Data Protection Act, we are witnessing a global awakening to data-centric challenges for businesses.

The increasing use of a third party to store data presents both opportunities and threats for organisations. Businesses that address data control issues ‘by design’ and adopt the latest advancements in data provenance, security and privacy-enhancing technologies will gain key competitive advantages over their competitors. Conversely, if there is no consideration for user data control, privacy, security and provenance, the business will risk potential loss of consumer trust, lawsuits and regulatory penalties over poor stewardship of their customers’ data.

- The application of game theory and incentive mechanisms for cyber security to determine the value of incentivising consumers and business to encourage better security and privacy practices are being researched by [Professor Claudio Mezzetti](#) (School of Economics), [Dr Naipeng Dong](#) (ITEE) and Professor Ryan Ko (ITEE).
- Novel techniques to incentivise boards to make decisions that translate into effective organisational cyber resilience are being investigated by [Associate Professor Sergeja Slapnicar](#) (Business School (UQBS) and Professor Ko.
- Cyber governance and risk with AusCERT members such as state governments and large-sized Australian retailers are being researched by [Dr Micheal Axelsen](#) (UQBS), [Dr Bongiovanni](#), Professor Ko, Dr Slapnicar and Dr David Stockdale (UQ AusCERT).

## Lens 2: Security, privacy and trust

### In Focus: Toward privacy-enhancing technologies and policies

UQ's research in preserving privacy technologies has informed public policy about electronic voting (e.g. partial homomorphic encryption for mobile eVoting scenarios). Professor Ko's findings relating to data privacy have been applied to law enforcement systems at the INTERPOL and in the healthcare sector in the area of genomic analysis of privacy-preserving machine learning. Researchers are addressing these privacy challenges with a truly interdisciplinary approach, working with colleagues across engineering, medicine and business to apply the research findings to the healthcare sector.

- UQ researchers [Professor Ian Hayes](#) and [Associate Professor Mark Utting](#) are collaborating with [Oracle Labs](#) to verify the correctness of the code optimisation passes of Oracle's [GraalVM](#) compiler. The compiler supports multiple programming languages and has a sophisticated optimiser designed to produce efficient code.
- In the area of security vulnerability research, [Dr Bai](#) and Professor Ko have supervised staff and students in projects uncovering vulnerabilities in mobile devices (e.g. Samsung) and cloud environments (e.g. Google). Professor Ko's DHCPv6 fuzzing tool is a key component of Kali Linux – the world's most popular open-sourced security testing toolkit for security professionals to perform various information security tasks, such as penetration testing, security research, forensics and reverse engineering.

### In Focus: Building trust in Artificial Intelligence

From disease mapping to social media monitoring; robotics to personal 'smart' assistants, artificial intelligence is all around us. Despite the prevalence of AI in our lives, many Australians remain unaware that it is being used and most do not trust the technology.

The benefits and promise of AI for society and business are undeniable. Researchers across UQ are working to build trust in AI and guide its governance for the future.

- The UQ KPMG Chair in Organisational Trust, [Professor Nicole Gillespie](#) focuses on trust development and repair in organisational contexts, and in contexts where trust is challenged, for example, in complex stakeholder environments, during organisational transformation and digital disruption, and in virtual healthcare settings. The research spans the health, finance, resources, higher education, defence and not-for-profit sectors.
- The responsible use of data assets – where it is sourced, shared, transformed, analysed and consumed – is a focus for [Professor Shazia Sadiq](#), whose research addresses issues of AI and other emerging technologies ensuring data is protected.
- Research conducted by [Dr Christoph Breidbach](#), Co-Lead of the Business School's Service Innovation Alliance Research Hub, identified, analyzed and explained the ethical implications that can result from the datafication of service. At a time when future technological developments related to AI, machine learning, or other forms of advanced data analytics are unpredictable, his research programme instigates a critical and timely discourse about the ethical implications that can arise from the datafication of service by introducing much-needed theory and practical guidelines.

*“Australians are most confident in Australian research and defence organisations to develop and use, and regulate and govern AI.”*

*Trust in Artificial Intelligence Report produced by the UQ Business School in partnership with KPMG*

## Lens 2: Security, privacy and trust



# Lens 3: Consumer experience design and metrics

Customers want more personalised services and the ability to control or co-create their experience with service providers, even other customers. Technological developments provide opportunities for the personalisation of services and can create new business models. AI and machine learning are currently applied to design recommender systems, such as chatbots, that can provide advice and service 24/7. These new systems deal with large amounts of data that can be used to better understand customer preferences. UQ researchers can design and test new recommender systems and AI-powered customer services. UQ can also provide advice on business model innovation and conduct cost/benefit analysis of automation.

Designing memorable consumer experiences is essential, in both online and traditional settings. UQ researchers undertake all aspects of design, testing and measuring to enhance how business engages with customers. This includes testing and measuring ways to elicit attention and emotional responses in promotional activities and in actual service settings, both in physical and virtual settings; and testing website useability and tracking online user behaviours and engagement metrics. UQ researchers have considerable experience measuring attention and identifying the most important elements in the customer experience journey, as viewed by the customers themselves which can give important insights into what is working well and identify root causes of problems.

Researchers use a range of methods and tools, such as algorithms, web scraping tools, quantitative and qualitative techniques. UQ also has cutting edge equipment to measure attention and emotional responses in lab and field sites.

# Lens 3: Consumer experience design and metrics

## In Focus: Customer experience design

Customer experience (CX) has been identified as one of the top 10 priorities for CEOs around the world – and that means it's big business for organisations. But 'getting it right' is not always easy, which has the risk of customers taking their business elsewhere. Increasingly, business must understand what matters to consumers including what they like about the CX and what they need to improve. Customers that are happy, feel valued and believe they are getting a good experience cost less to serve, are more likely to remain loyal customers and are increasingly likely to recommend the organisation to their friends.

Businesses may think they know what their customers value, but too often organisations are relying on what they think the customer wants. In reality, it is critical to find out what the customer actually values and then start doing some things that the customers value, stop doing things that the customers do not value, and continue doing those things that they do value.

- Anchored in the practice of Design Thinking, design methods are commonly utilised by consulting companies and design agencies alike to understand users' needs and create solutions that routinely exceed customers' expectations. [Dr Ivano Bongiovanni](#) is an experienced facilitator of Design Sprints and design-led projects. Since May 2016, he has run more than 50 such initiatives, ranging from three-hour engagement workshops to six-week Innovation Sprints, for a number of public and private sector organisations.
- Businesses often ignore open-ended feedback from customers or they categorise the information broadly as a complaint or compliment. Research shows that this rich feedback can be used to identify previously unrecognised, critical touchpoints in the customer experience. [Professor Janet McColl-Kennedy](#) (UQBS) researches the inadequacies of relying solely on a single CX metric, such as the widely used Net Promoter Score (NPS). Organisations need richer models to identify key pain points from the customer's perspective, and then map these onto specific root causes that represent key opportunities for improvement. Professor McColl-Kennedy developed a conceptual framework that incorporates customer touchpoints, value creation elements, emotions and cognitive responses, and then applied the framework, using advanced text mining techniques to better

understand customers' problems. The technique enables an organisation to:

1. Identify critical touchpoints from the customer's perspective – including potentially new touchpoints that had been previously unknown
2. Understand what specifically matters to the customer about each touchpoint
3. Map each touchpoint to its root cause, i.e., the specific firm action or strategy that influences the touchpoint
4. Take specific actions to improve the touchpoint and the overall CX
5. Uncover customers who are at risk of leaving the business, independently of their satisfaction (or NPS scores).

*Sales figures show that when customers' concerns are not addressed, sales drop significantly. Text mining can help ensure customers are satisfied and remain loyal.*

## Lens 3: Consumer experience design and metrics



### In Focus: Chatbots and personalisation of services

Customer experience can also be improved by changing the way personalised recommendations are delivered. Chatbots are the state-of-the-art artificial intelligence technique that can generate human-like responses based on customers' textual or audio input.

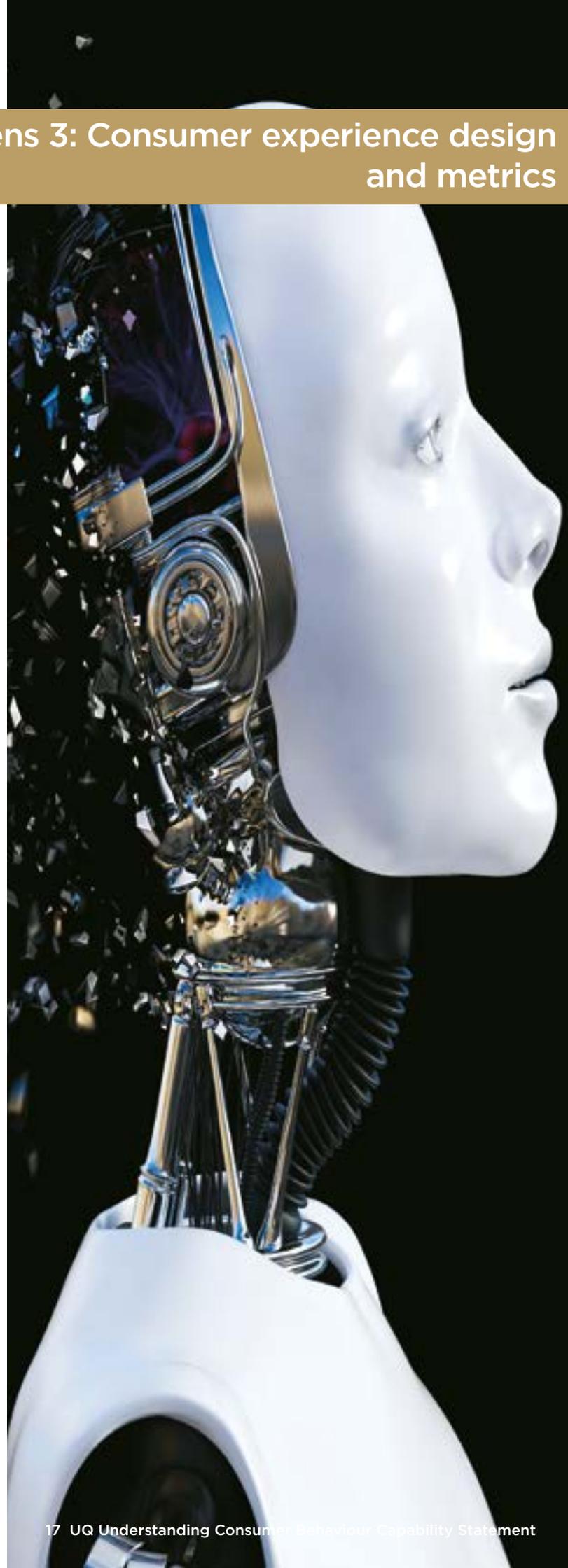
- In the day-to-day e-commerce scenario, the conversational recommender system (CRS) is capable of chit-chat with an arbitrary user, which resembles the role of an actual shopping assistant. When the user starts seeking a particular type of product, the CRS is able to ask clarifying questions (e.g. price range, brand preference) and can fully utilise the user's behavioural footprint to learn the user's interest, thus recommending the most suitable products. Through a mobile CRS application, a customer can safely obtain restaurant recommendations while driving – and the app can answer a customer's inquiries on the recommended restaurant, such as carpark availability and location, thus offering a personalised, human-centred recommendation experience. ITEE's [Dr Hongzhi Yin](#) undertakes research to fuse the interactive nature of chatbots with the customisation capability of recommender systems, leading to CRS development.

## Lens 3: Consumer experience design and metrics

### In Focus: Market segmentation

As AI becomes more advanced, market segmentation becomes increasingly important across all facets of the retail, banking and health sectors.

- Perceptions-based market segmentation, which is the analysis of segmentation, positioning and competition, prevents sequence errors from occurring when both positioning and segmentation decisions are made. [Professor Sara Dolnicar](#) (UQBS) undertakes research to improve market segmentation methodology, testing and refining survey measures used in social science research. She is currently collaborating with a group of online market research companies to develop and test improved survey measures specifically designed for the online environment. Professor Dolnicar has co-authored a number of books on market segmentation. For example, [Market Segmentation Analysis](#) and the accompanying [edX course](#) provide practical guidance for users of market segmentation solutions; guidance for market researchers on collecting suitable data; and visualisation techniques to aide the interpretation of data.



# Research Equipment

Research that uses survey questionnaires and interviews relies heavily on self-reported and highly subjective responses. This provides an assessment of what consumers 'think they feel' as opposed to how 'they actually feel'. Such methods are also open to consumers responding in a way they perceive is favourable to the research which in turn leads to unreliable and, at times, dishonest data. Lab based methods allow for completely objective non-bias responses. Businesses can be confident of the results from these techniques, particularly when exploring sensitive issues around consumer trust and privacy or areas that are prone to social desirability bias.

What sets UQ researchers apart from competing institutions and commercial market research consultancies is their ability to apply advanced methodological techniques to measure consumers' psychological and behavioural responses to product and service offerings. An understanding of how consumers respond to experiences, product offerings and communication, allows for the prediction of both purchase and post purchase behaviour. The facilities at UQ are well equipped to enable researchers to identify the specific features of an organisation's product or service that matter most to the consumer – and what can be done to enhance those features.

we can't **see you,**  
we can't **save you.**

Enjoy the Beach Safely.  
0  
Beach  
Beach

- UQ has a private cloud computing server infrastructure which can spin up approximately 1000 machines to simulate cyber threads scenarios at scale.
  - The fully-equipped [Industry 4.0 UQ Energy TestLab](#) has been established to enable the widespread adoption of digital Industry 4.0 technologies. The facility encompasses cyber automation for critical infrastructure and energy research for security analytics and building management systems.
  - The [Data Science Research Group \(DAS\)](#) in ITEE is internationally recognised for its research in deep learning, user behaviour modelling, recommender systems and predictive analytics. DAS has been the driver for UQ's consistently high performance in information systems. It has a growing portfolio of data-intensive computing infrastructure, including a large spark cluster and a powerful NVIDIA TESLA GPU cluster. The infrastructure can support terabyte-level high-performance storage and analysis of the social media contents, design and manage large-scale surveys, and facilitate deep model learning. DAS has accumulated billion-scale real customer datasets, as well as the commercial sales data and user transactions in its data-driven customer experience research.
  - Attention, cognitive control, theory of mind, and task performance using behavioural and neuroimaging techniques are studied in the [Attention and Control Laboratory](#). This cognitive neuroscience research lab aims to understand (in)attention and how consumers process and understand information. The techniques they use include electroencephalography (EEG), transcranial magnetic stimulation (TMS), transcranial direct-current stimulation (tDCS), as well as functional magnetic resonance imaging (fMRI).
  - Understanding and promoting positive social change in society and business is a focus for the [Social Change Laboratory](#). Researchers explore the role of images in helping or preventing persuasive messages in how to motivate stronger actions among people, such as charitable giving or environmental actions. A major focus for the lab is better understanding how to translate good intentions into concrete outcomes that matter.
  - The [Behavioural and Economic Science Cluster \(BSEC\) Laboratory](#) is a state-of-the-art facility for testing new ideas in a controlled, low risk environment. The lab contains 48 fixed computers plus an instructor machine that can test a large number of participants simultaneously. The facility has a modular structure that can use dividers to separate participants during the running of an experiment. It also has moveable projectors, white boards and a recruitment database of 1000+ student participants. In 2019, more than 2,300 people registered to take part in sessions in the lab.
  - UQ has the ability to simulate the rapidly developing technological advancements within the services sectors allowing researchers to predict consumer responses to a wide range of technological innovations prior to their implementation. Laboratories house a variety of equipment to assess a broad range of consumer responses both in the lab and the field. These include:
    - Lab-based and mobile eye tracking devices enable the researcher to detect the attention and focus of consumers when observing websites, promotional materials and product selections through monitoring and mapping eye movement. This equipment can provide insight pertaining to optimal website design and how to capture consumer attention both instore and outdoors.
    - Psycho-physiological measurement devices including skin conductance; facial electromyography; heart rate monitor and facial movement reading technology to measure the impact of certain events, product and service features and other forms of stimuli on consumer emotions. The devices can be used in the lab or field and capture information on the intensity and type of real time emotions people are actually experiencing as opposed to what they 'think' they are feeling.
    - Electroencephalogram (EEG) technique captures, visualises and exports raw data that can be used to assess motivation, engagement, relaxation, excitement and interest. This is highly useful in studying actual versus intended behaviour and cognitive workload.
    - Virtual reality technology can immerse respondents into simulated environments that represent a variety of service contexts or situations. Virtual reality technology allows researchers to assess likely responses to such scenarios in a controlled lab setting and minimises the risk of interference from other activities that may occur if the research were to be undertaken in the field.
  - [Research Data Australia](#), an online portal service provided by Australian Research Data Commons, facilitates access to a large amount of consumer datasets available to researchers, policy makers, education, industry and business people interested in consumer-related data and fields of research.
  - Via UQ's [Research Computing Centre](#), researchers have easy access to four high-performance computers (HPC), including a data-intensive HPC and a graphics processing unit-accelerated HPC, as well as accompanied support from computing experts, including machine learning and coding support.
- UQ's computational research technology infrastructure ensures fast data analysis and transfer, both internally and externally. Research data is both securely stored and managed according to the latest protocols.

# Our People

UQ has researchers working across many aspects of understanding and influencing consumer behaviour. In addition to disciplinary strength, our researchers have a strong interdisciplinary focus enabling them to take a broader view of current challenges and future issues for the banking and retail sectors.

## Lens 1 Researchers



[Associate Professor Nicholas Carah](#) (School of Communication and Arts) examines the algorithmic and participatory advertising model of digital media platforms, with a focus on digital alcohol marketing. He has been involved in research projects on alcohol-related harm and nightlife culture, and the use of digital media in fostering cultural change in drinking culture. He is a director of the Foundation for Alcohol Research and Education. [n.carah@uq.edu.au](mailto:n.carah@uq.edu.au)



[Dr Jonas Fooker](#) (Centre for the Business and Economics of Health) has research interests around the application of behavioural and experimental economic tools to respond to questions arising for public policy makers. With a background in behavioural and experimental economics, he has a particular interest in questions relating to healthcare provision and public health. Dr Fooker undertakes both theoretical and applied research. [j.fooker@uq.edu.au](mailto:j.fooker@uq.edu.au)



[Professor Luke Connelly](#) (Centre for the Business and Economics of Health) has ongoing research interests in the economics of disability and insurance, compensable injury and injury insurance (i.e. compensation) schemes and the determinants of health. He has also conducted research and taught extensively on health and other insurance markets and is currently Guest Co-Editor on a special issue of the Geneva Papers on Risk and Insurance on Emerging Health Risks and Insurance. [l.connelly@uq.edu.au](mailto:l.connelly@uq.edu.au)



[Associate Professor Lana Friesen](#) (School of Economics) undertakes research in experimental, behavioural and environmental economics. Her focus is on designing and implementing experiments to investigate the effectiveness of environmental national and international regulations. Her research harnesses traditional financial incentives and insights from behavioural economics to demonstrate how regulators can use their limited enforcement resources more effectively to improve compliance. [lfriesen@uq.edu.au](mailto:lfriesen@uq.edu.au)



[Associate Professor Gianluca Demartini](#) (School of Information Technology and Electrical Engineering) undertakes data science research. His interests include designing algorithms and systems that can scale-out to large amounts of data, improving the efficiency and effectiveness of human-in-the-loop artificial intelligence systems, and leveraging structured information in combination with unstructured text to enhance the web user experience. He has collaborated with several industries and governmental organisations including Facebook, Google, Microsoft, Yahoo!, IBM, SAP and The National Archives in the UK. [g.demartini@uq.edu.au](mailto:g.demartini@uq.edu.au)



[Professor Brenda Gannon](#) (School of Economics) is internationally recognised in the health economics of ageing. She has developed a range of projects in economics of ageing and longevity on physical activity and cognition, health shocks and health care utilisation, and consumer-directed care and home care. She has worked extensively on interdisciplinary research with gerontologists, clinicians and methodologists. Her work has been influential in developing programs to prevent falls and informing policy on disability and social inclusion. [brenda.gannon@uq.edu.au](mailto:brenda.gannon@uq.edu.au)



[Professor Paul Dux](#) (School of Psychology) uses cutting-edge techniques to study the cognitive and neural underpinnings of human information-processing capacity limitations in health and disease. His interests are the mechanisms of attention and executive function; the efficacy of cognitive training and brain stimulation, and how those processes change the brain to improve performance. [p.dux@psy.uq.edu.au](mailto:p.dux@psy.uq.edu.au)



[Professor Alexander Haslam](#) (School of Psychology) focuses on the study of group and identity processes in organisational, social, and clinical contexts. He explores the role of group processes on the dynamics of intergroup relations and conflict in tyranny and prejudice; the contribution of group life to stress and coping in vulnerable populations; and the influence of social identity to leadership, motivation, communication, decision-making, negotiation and productivity in organisations. [a.haslam@uq.edu.au](mailto:a.haslam@uq.edu.au)



[Professor Jolanda Jetten](#) (School of Psychology) is interested in social identity, social groups and group dynamics. She has studied how identity changes in response to stigma and oppression of identity throughout life and the implications of social identity on general health. Professor Jetten researches group processes and pressures, intergroup conflict, prejudice, stereotyping, bullying and marginalisation, organisational change and well-being. [jjetten@psy.uq.edu.au](mailto:jjetten@psy.uq.edu.au)



[Associate Professor Jane Johnston](#) (School of Communication and Arts) researches across public relations, communication and justice, and media diversity and change. She has expertise on the interface between courts and the media, most recently examining how social media has influenced communication practice in this space. Her most recent research investigates critical intersections in public relations. [jane.johnston@uq.edu.au](mailto:jane.johnston@uq.edu.au)



[Dr Kenan Kalayci](#) (School of Economics) is an experimental economist whose research focuses on behavioural economics and industrial organisation, which is the study of markets incorporating insights from psychology and other related disciplines. He has pioneered empirical research in this field, developing an experimental methodology to study issues around spurious product differentiation and price discrimination in markets. [k.kalayci@uq.edu.au](mailto:k.kalayci@uq.edu.au)



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## Lens 2 Researchers



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# Our People



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[Dr Christoph Breidbach](#) (School of Business) is a service scientist exploring the triad of organizations, information technology, and people with a focus on the financial services industry. As an academic committed to societal impact and creating change, his research on cryptocurrency communities, AI ethics and new business models, or financial wellbeing aims to contribute to, and help shape, Australia's society for the better. He has extensive experience collaborating with industry partners in Australia, the US and Europe.



[Professor Ryan Ko](#) (School of Information Technology and Electrical Engineering) is an expert in cybersecurity, cloud computing security, data privacy and AI in cybersecurity. His research focuses on 'returning control of data to cloud computing users', reducing users' reliance on trusting third-parties through (1) provenance logging, reconstruction and traceability, and (2) privacy-preserving data processing (homomorphic encryption). He has served as an advisor to INTERPOL, the New Zealand Defence Force, and the New Zealand Minister for Communications' Cyber Security Skills Taskforce Technology. [ryan.ko@uq.edu.au](mailto:ryan.ko@uq.edu.au)



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## Lens 3 Researchers



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# Our People



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