Australia’s population has soared, to the point that easy access to cheap labour has nullified any hopes of a technological revolution. Worldwide, the growing middle class has opened up a wealth of commercial opportunities; however, for the millions of people left behind, the future is bleak. Concerns about poverty and terrorism trump any meaningful efforts to deal with climate change.
n 2037, the revolutionary promise of automation technologies (robotics, artificial intelligence, autonomous vehicles and automated facilities) has mostly dissipated. Australia’s rapid population growth, in part fuelled by migration, has led to an unwillingness in the private sector to invest in technology; labour is accessible, relatively cheap, and – as opposed to automation – it doesn’t require years of research and development funding. Most Australians reside in urban areas, particularly in capital cities, which are now densely populated. Additional housing is built in already settled areas: new houses on the fringes, and large apartment blocks in the city centres. As more people live in them than ever before, city centres become denser. Ensuring that these new consumers have access to the products and services they require becomes something of a challenge. Faster-than-expected population growth has also been a feature in Africa, South East Asia, India and Latin America. Unfortunately, this has also resulted in more economic disparity; around the world there are now more people living in poverty and extreme poverty, both as a percentage and in number, than ever before in human history. Growing poverty and inequality have led to a rise in unrest around the world. The inability of hundreds of millions of people to satisfy their basic needs creates increased political instability and social tensions, and triggers mass migrations. Radical movements have found fertile ground: terrorist attacks and other intentional disruptions, often affecting freight and supply chains, are relatively common. Maintaining safe freight lanes and supply chains through these regions requires intense and close collaboration across governmental jurisdictions and with multiple organisations.

In developing nations, the threat of climate change – although very serious – has been overshadowed by more immediate problems like poverty, conflicts and terrorism, and the struggle for equitable access to the necessary means for survival. In these nations, consumer expectations regarding environmental sustainability are in general not very high; most consumers are happy to buy reasonably sustainable products, as long as prices are affordable. Reflecting this public attitude, mandates from government and standards in industry in developing countries with respect to sustainability are equally tempered. Rules are designed to be pragmatic, and not slow down the progress of industry, while maintaining a reasonably low impact on the environment.

China – now a global superpower and the dominant player in Asia Pacific – has asserted its authority over the South China Sea, now the world’s most important waterway. Through its Belt and Road Plan, and other initiatives, China has developed strong land and maritime routes with South East Asia, the Middle East, Africa and Europe, improving passenger and freight infrastructure and boosting trade. Economic prosperity has allowed China’s middle-class population to quadruple over two decades. In a massive and unprecedented expansion in purchasing power, hundreds of millions of Chinese citizens can now afford more, and expect to consume better products and live better lives. In Australia and other developed nations around the world, as well as in major Chinese cities, there is a whole generation of consumers (born in the first two decades of the new millennium) that has different values, lifestyles and priorities, which are reflected in the type of products and services they consume. These new consumers have more power as they are better informed and have more choice. Most of their consumer demand now goes through online retail channels.

For most goods – including groceries, and heavy or bulky items – consumers in urban areas have come to expect 24/7, same-day delivery of their orders, directly to their homes or to nearby pick-up sites. Hybrid click-and-mortar models are used, along with multichannel and omni-channel. The expectations of this new generation of middle-class consumers are also higher, in terms of service, quality, social responsibility and environmental sustainability. Consumers will bring their business only to those who meet their expectations. Regulations and standards regarding product quality, environmental impact and work conditions for goods made or sold in developed nations are tougher than ever before. As standards rise, so do the cost of goods, and their value density.

Due to security and environmental sustainability issues, there is an expectation of complete visibility and traceability within certain supply chains, including chain of custody, guarantee of provenance, and end-to-end traceability of many products. End-to-end supply chains have become much more complex, and managing them requires a different employee skill set, including soft skills (e.g. strategic thinking) and hard skills (e.g. optimization). Algorithms are used extensively for optimising efficiency. Many opportunities for improved productivity are possible with industry leadership and genuine collaboration across the supply chain. However, collaboration comes with challenges. The spread of big-data collection and sharing has cooled down after a series of very public and financially painful large-scale cyber-attacks, in which sensitive data was stolen and misused.

Australian firms face more competition than ever in a worldwide market. As local manufacturing continues to decline, Australia relies more than ever on imported goods. Supply chains that were previously domestic now originate offshore, delivering directly to Australian ports.

Domestic and international freight flows mix routinely. At the same time, demand for Australian goods increases from both domestic consumers...
and international trading partners. Exports of Australia’s food and agricultural products, particularly to China, continue to grow: not only staples (wheat, wool, meat), but also fruits and vegetables and more boutique products, like fish, high-priced lobsters and other crustaceans, among others. Australia’s reputation as a ‘clean and green’ producer allows high-quality products to be sold at a premium price in niche markets in China and some capital cities across South East Asia.

Australia remains an attractive destination for skilled migrants seeking residency. In the new workplace, diversity and inclusion are fundamental values: the new workforce is more diverse in terms of ethnicity and gender. Labour costs continue to increase, as does the rate of casual employment. Driver work hours are now logged automatically by electronic means. The sharing economy (i.e. the shift from full ownership of assets to the renting or leasing of assets) has expanded to areas other than cars and houses. The Uber-style model is now commonly applied to trucks, freight and distribution systems, while the AirBnB model is now applied to warehouses and other facilities.

AUSTRALIAN supply chain managers are on high alert after a series of terror attacks on key Asian shipping routes.

Four container ships have been sunk in the past eight weeks as terror organisation JIDA looks to disrupt the Western economy.

Terrorism experts say the attacks are likely to be the tip of the iceberg for an organisation that has a strong membership, is well armed, and seems particularly incensed by Western-style consumerism.

JIDA is strongest in the Philippines, but has an increasing foothold in parts of Indonesia. Both countries abut key Australian export routes, with freight headed to Singapore or China’s eastern seaboard particularly vulnerable.

Murray University academic Professor Chloe Elliott said JIDA’s main game seemed to be inflicting damage on consumer-driven supply chains.

“So far we’ve seen them hit ships, but it’s entirely conceivable that they’ll also go after trucks, trains, ports, airports … they’ll find the most vulnerable part of the supply chain and go for it,” Dr Elliott said.

“This differs from traditional piracy because they are not interested in getting their hands on the goods, or even on a ransom.

“Much like the al-Qaeda attacks in the earlier part of the century, this is about inflicting damage on the Western way of life. They oppose the rise of the middle class in places such as China and Indonesia, and the associated consumerism that flows from that.”

Authorities and shippers are particularly fearful of JIDA given the weapons used in the recent attacks.

“These aren’t homemade devices,” Dr Elliott said.

“These guys seem to have a good supply of military-grade equipment, possibly flowing to them from the previous conflicts in Syria and Afghanistan. The weaponry might be on the older side, but it is still very effective. It can bring down all but the most modern of ships.”

Domestic security expert Paul Davis said there was no evidence of JIDA cells in Australia – yet.

“We haven’t seen anything but you’d be crazy to assume there wasn’t something happening under the surface,” Mr Davis said.

“These cells have an ability to operate very quietly until they are called into action, and despite the authorities’ best efforts, sometimes you don’t know these people are on the march until it’s too late.”
Millions are escaping poverty. But plenty will never get out

WESTERNERS hear plenty about the unparalleled growth of the world’s middle class; the hundreds of millions of people across Asia, Africa and Latin America who have been lifted out of poverty and thrust into the global marketplace, millions upon millions of new customers helping to drive world’s economic activity. But we hear far less about the millions left behind, faced with a growing gap between the haves and the have-nots that might never be repaid.

BEEZU Mwansa stares forlornly from the front door of the tin shack he shares with seven other members of his family. He watches the outside world, but he doesn’t enter it. “There’s nothing out there for him. Food is scarce. Work is non-existent. Rubbish piles up in the street outside. The stench is foul, particularly when the scarce rain falls. Work is non-existent. Rubbish piles up in the street outside. The stench is foul, particularly when the scarce rain falls.”

Mr Mwansa, 37, lives in Kanyama, a slum on the outskirts of Zambia’s capital city, Lusaka. Twenty years ago, Lusaka was one of the fastest-growing cities in Africa, and Zambia had one of the continent’s most promising economies. Now, up to 70 per cent of Lusaka’s residents live in slums, close to 1.5 million people. The conditions are unimaginable to Westerners. There is no running water. No sewerage. No waste collection. No healthcare, no education. Little hope.

In the early part of the century, there was barely an African nation that didn’t welcome some sort of Chinese investment as the world’s dominant superpower sought to get a hold of some of the cheapest natural resources on the planet. The Chinese sunk billions of dollars into Africa, investing in infrastructure to connect the continent to Chinese shipping lanes, as well as securing friends on the floor of the UN.

Initially, Zambia was a darling of the Chinese. Poor, certainly. But relatively stable in African terms, and willing to embrace the conditions that came with Chinese investment. For the first decade, at least. But at the same time as Zambia’s middle class grew fat on American investment. Much of the cash flowed into the capital, Brasilia – a planned city that opened in 1960 in part to take the functions of government away from the poor masses. And the Brazilian government failed to capitalise on the investment, with cash flowing directly into private citizens’ pockets.

“If you had a government job, or you serviced the government, then things would be good for you,” says Pietro Teixeira, 47, who has lived in a favela on the outskirts of Rio de Janeiro for most of his life. The favelas remain a hotbed of drugs and crime. Despite government attempts to clean things up, the cocaine trade still provides the most promising source of income for residents. With that comes drug lords, shoot-outs, bribery and corruption.

“For us, there is nothing. You live in a favela, you got no hope. Nobody will give you a job, nobody will give you anything.”

FOR 30-odd years, the Philippines has ridden the wave of technological development. Filipino workers have filled low-skilled call centre roles, taken on desktop support positions, become expert coders, processed payroll – the ultimate destination for companies looking to cut costs.

As outsourcing became commonplace, millions of Western dollars flowed into the country and greatly improved living standards for large parts of the community. But the benefits had limits. People with limited education missed out. And geography played a part; outsourcing companies generally operated out of the Manilla area, avoiding the more volatile southern province of Mindanao.

Mindanao has traditionally relied on agriculture for its income and was once a major food exporter. But the province struggled to meet the high visibility and traceability standards expected by the increasingly powerful international buyers.

As such, Mindanao lays a long way behind the rest of the Philippines in terms of economic development – a fact that is partly behind a rise in terror-related activity on the island and its surrounding waterways. Mindanao is home to the terror group JIDA, which opposes the spread of Western-style consumerism and has attacked parts of Western supply chains on a bid to raise its profile. It has also poisoned local water supplies, destroying export crops.

The disconnection from the wealth flowing into the country, combined with disillusionment with global politics, has provided a fertile environment for terror cells, according to international terror expert Heidi Orford.

“You take what’s happening in Mindanao and apply that to other parts of the world experiencing the same inequality and you create a very volatile landscape,” Dr Orford said.

“These developing countries face very difficult challenges in ensuring the wealth is distributed in a way that doesn’t leave millions of people stuck in the cycle of poverty.

“Over the past 20 years, I don’t think we’ve seen many countries achieve that balance properly. The result is millions upon millions of people who feel isolated and angry.”
AUSTRALIA'S exports and imports have reached new levels as local businesses continue to thrive in the globalised economy.

Surpassing even the most optimistic of forecasts, Australia's trade as a percentage of GDP has topped 75 per cent, closing in on big export-focused nations such as South Korea.

Key to the trade explosion is China, where the ever-increasing middle class shows an insatiable appetite for Australian produce.

On the flipside, Australians can't get enough of the goods that made China rich in the first place – chiefly, low-cost technology.

The rise of emerging markets such as Indonesia and India has led to more ships than ever plying the trade routes between Australia and Asia.

Prominent economist Marcus Tran said circumstance had led to a symbiotic relationship between Australia and the Asian markets, particularly the world's biggest economy in China.

"Australians aren't interested in making stuff anymore," Dr Tran said. "Labour is too expensive. We grow stuff, we dig stuff out of the ground, but aside from that, we've evolved into a knowledge-based service economy.

"At the moment, though, that works for us. Our good reputation means our food and agricultural products are in high demand across an Asian market that has an exponentially expanding middle class."

Trade Minister Ursula Lee said the level of transparency in Australia's supply chains appealed to buyers.

"People trust 'brand Australia," Ms Lee said. "We've worked hard on our 'clean, green' brand, and at providing buyers with as much information as possible about the source of the food they're buying."

"Transparency has become more important than ever, and Australia can provide that in a way most markets cannot."

Dr Tran said Australia's obsession with "new stuff" – particularly tech items such as phones and computers – fuelled the import market.

"The Asian nations are very good at making things like phones, cars and flat-pack furniture on the cheap, which is great because Australian consumers can't get enough of those items."

"Australia's population has soared in the past few years. Every time there's a new house finished on the fringes of one of our capital cities, it needs to be filled with stuff; most of those kitchens, those bathrooms, all that furniture, the televisions, etc... most of the time, that's coming into Australia on a boat or a plane; there's very little being made here, particularly at a price point that's accessible to those who are building a new house out in one of the growth areas on the urban fringe."

Three levels of export priority

The Australian Export Council classifies exports into three categories. President Murray Shaw explains the difference.

CATEGORY 1

"Lower-priority items such as wheat and wool. These items have underpinned our economy for more than 100 years and remain vital to out GDP but they are not necessarily time-dependant. They are generally shipped to our trading partners by sea, and follow trade routes that have held us in good stead for many, many years."

CATEGORY 2

"Items such as fruit, vegetables, meat and dairy. These goods may go by sea or air; it just depends on how perishable they are, and how much the buyer is willing to pay for them. This category is expanding throughout Asia in particular, where the expanding middle class is hungry for goods that come from a reliable source."

CATEGORY 3

"This is the fastest-developing sector. We're talking about luxury or niche items such as shellfish, honey or wine. A lot of the time these are transported by air, because time is critical; a crayfish could be caught off the coast of WA in the morning and be on a dining table in Tokyo that night. We're increasingly sending these high-value niche items into destinations such as Shanghai, Hong Kong, Japan and South Korea."
WHY YOU MUST GET TO KNOW THE ALPHAS

They are the most educated cohort to ever walk the planet, yet many an old-timer would accuse them of having no idea what is going on around them. They’ve never been more connected, but may never have actually met any of their friends. They are, paradoxically, both the most loyal and most fickle consumers to have ever kept marketing managers awake at night. We’re talking about Generation Alpha, loosely defined as those born between 2000 and 2020. They’re now at the peak of their spending power, making them a very interesting proposition for retailers and marketers.

“They are something of a conundrum to us,” leading advertising executive Haleigh Chapman says. “On one hand, we know every damn thing about them. They grew up in the public eye; their births were announced on Facebook, their mothers sat around playing with their phones while feeding them as babies. Alphas can’t comprehend the concepts of privacy and personal space. “So you’d reckon that we’d be able to second-guess their every move. But I’m the first to admit that we can’t. It’s nearly impossible to guess what they’ll follow next. Food, fashion, entertainment; I don’t think picking trends has ever been harder because these guys aren’t only influenced by what’s happening here in Australia, or in the US or UK; they can find out at the push of a button what the next big thing is in Chile, or Morocco, or Jamaica.”

“They’re always looking for something different or unique; ironically, once they find it, a gaggle of followers usually isn’t far behind. “But on the flipside, once they get rusted onto a brand, it takes a PR disaster of epic proportions to dislodge them. Take Apple for example – they grew up seeing that logo on the back of the phones in mums’ and dads’ hands, and now you simply cannot shift them away from it – 80 per cent of Alphas in the US own some sort of Apple product.”

Knowledge is currency to Generation Alpha. They have grown up with phones in their hands, the vast majority of human learning at their fingertips, 24/7. They’ve never understood the feeling of not being able to find something out. Where as the Gen Ys and Millennials before them saw going to university as a right, the Alphas see it as a bare minimum; a Master’s degree is usually necessary to get them into any sort of high-earning job.

That need for knowledge influences their buying habits. “I remember when shoppers were happy with a list of ingredients on the back of a packet,” says supermarket tsar Tony Parker, an industry veteran of 46 years. “Then we started doing recommended daily intake. Then we started doing health benefits. Now, we have full knowledge of the source of the ingredients; they insist on knowing where every ingredient came from, so they can then check that the source – let’s say, a dairy farm – treats its workers, animals and the climate properly.

“It’s not that they’re going out of their way to be difficult. It’s just that all their lives, they’ve had instant access to untold amounts of information, and so it’s just second-nature to them.”

The evidence suggests that if you’re a brand manager who delivers on that expectation, you’re safe. But betray them, and you’re burned for good.

“Like any generation, Alphas can be a bit on the lazy side and don’t mind cutting the odd corner here or there,” Ms Chapman says. “Prove that you meet their requirements, and they’ll bookmark your site and keep using it over and over.”

“But if something goes wrong, if you break that trust, you’ll be deleted forever. It really keeps companies on their toes.”

Marketing to Generation Alpha was once a straightforward process: you had to advertise on whatever was then, and that’s how they knew you were there. But now, the evidence suggests that if you’re a brand manager who delivers on that expectation, you’re safe. But betray them, and you’re burned for good.

Alphas aren’t just used to getting their knowledge quickly; they’re used to getting everything quickly. They were still in nappies when UberEats first made a big impact in Australia. They are the first generation to shop more online than in-store. They want it, and they want it now.

Research shows that four in 10 Alphas have never set foot in a clothing store. Three in 10 visit a supermarket less than once a month. Four in 10 never look at home. Entire department store empires have collapsed because Alphas are happy ordering a Bangladeshi-made garment from a Swedish website than they are popping down to the local mall.

“Developing a supply web that evolves depending entirely on the whims of customers with phones in their hands. “It’s those phones, and the associated technology – the wearables, the augmented reality – that define the lives of Alphas.

They’ve had online social networks since they were in primary school. More than 20 per cent of them are only children, meaning they’re used to being on their own. In fact, they’re infamously not keen on leaving the house – 75 per cent work from home at least one day a week, and 13 per cent go into the office less than once a month.

“These concentrated online presences make them hard to reach,” Ms Chapman says. “Every one of them is on social media, but there are only a handful of social media platforms, so only the really big operators – your Apples, your Cokes, your Netflixes – can afford to advertise there.”

“In the past, advertising consumption was more fragmented. We could put ads on a TV station. Not many of them left now. (Nearly 90 per cent of Alphas say they never watch free-to-air TV). Outdoor billboards? Basically useless for Alphas, they never leave the house. We used to push new products into supermarkets or clothing stores, and pay big bucks to have them up the front with big gaudy signs that made sure that everyone who entered the store got a chance to see and touch the goods.

“Now, OK, you can put a big flashing ad on a website, but Alphas grew up with them as kids; they were tuning them out before the age of 10.”

“Never has a group of people been so connected to the whole world, but been so hard to reach.”
THE Federal Court has heard sensational claims on the first day of a landmark cybercrime case between two dairy companies.

Fern Valley Family Dairy has launched a claim of injurious falsehood against competitor Vincentia Farm Products, claiming a sustained period of ‘fake news’ attacks on the company.

Fern Valley lawyer David Robertson QC told the court that Vincentia had engaged the services of an offshore digital outsourcing company to systematically damage his client’s online reputation.

Among the claims tendered on the first day of the trial, Mr Robertson claimed that Vincentia hired a Kazakhstan-based outsourcing company to:

• Trawl online review sites and post negative reviews of Fern Valley products, using thousands of false identities made to look like real Australians;
• Circulate falsified videos and pictures of animal cruelty on farms linked to Fern Valley, some of which went viral on social media and were picked up by mainstream news sites;
• Write negative, SEO-optimised articles about Fern Valley that showed up high on search engine searches;
• Have false online identities claim to be former employees, telling stories of racism and sexism in Fern Valley’s factories;
• Pay social media influencers to support Vincentia products and subtly knock Fern Valley’s lines;
• Use ‘blackhatting’ techniques to have Fern Valley’s own sites pushed down the search engine rankings;
• Create memes that mocked Fern Valley’s attempts at gaining positive media coverage, and;
• Create social media posts purporting to be from Fern Valley that portrayed the company as attempting to profit off last year’s King Valley bushfires.

The court heard Fern Valley suffered millions of dollars in lost sales and contracts as a result of sustained negative reviews, and was on the brink of collapse.

“This was a deliberate, malicious campaign of corporate terror against my client,” Mr Robertson told the court. “These techniques were well advanced. The articles were measured enough to be believable to the casual observer. They asked questions that planted thoughts in readers’ minds, rather than making outright accusations against Fern Valley.

“The online reviews were never completely negative; some were even given two stars.

“Whereas one single course of action would have been obviously the work of a saboteur, this was an orchestrated, long-term plan to bring down a rival company using death by a thousand negative reviews.”

Prominent lawyer Natalie Christensen said that if the court eventually ruled against Vincentia, it could open the door for a suite of extra claims by other affected businesses.

“It’s entirely conceivable that if Fern Valley is successful, then the trucking company contracted to them could make a claim for loss of business, given they were directly affected,” Ms Christensen said.

“Supermarkets that stock Fern Valley products and struggled to move them might be involved. Fern Valley’s suppliers could weigh in. This is a case that could seriously reverberate for some time.”

Marketing expert Quentin Burg said the case showed the power of online reputation.

“Google is the new word of mouth,” Mr Burg said. “More than 95 per cent of shoppers use and are influenced by online reviews. Sixty per cent of people are influenced by three or less reviews. Most just look at the star rating and don’t even bother reading the comments.

“But there is so little in the way of vetting on these sites. Essentially, you have to prove that a review is false to get it taken down, but the laws around fair comment are fairly liberal; you can get away with a lot in the name of a review.

“What the law hasn’t done is keep up with the reality of life online, and that is, that you don’t even know whether you’re dealing with a real person. Is the review coming from a genuine customer, a disgruntled competitor, or some bot in a country far away?”

“The industry is watching this case very closely.”

The case continues.
Supply chains are keeping it casual

ASK Ava Zafon what’s in Warehouse #13 in Sydney’s outer west, and she looks around the room.

“Over there we’ve got a stack of menswear for a major department chain,” she says.

“Behind that there are some groceries for one of the big supermarkets. And behind that we’ve got computers, although they’re moving out tonight and will be replaced by some mixed hardware.”

Ms Zafon does not have a photographic memory. She’s wearing smart glasses, which tell her exactly what’s in every one of the bays in every one of her warehouses. She needs them, because the turnover here is fast.

Ms Zafon is Inventory Manager for Warehouses Inc, which has become one of the biggest players in the Australian supply chain industry. It’s kind of like a self-storage facility, but on a much grander scale, and represents the growing “uberisation” of the industry.

Warehouses Inc rents space to anyone who needs to stage deliveries – by the hour if necessary. The company has more than 40 warehouses set up across Australia’s mainland capital cities, often housed in facilities abandoned by the very companies now leasing them back.

“A lot of the big retailers decided that owning warehouses didn’t make sense. They sit on valuable land, are expensive to maintain, and even more expensive to upgrade. And they were rarely using the full capacity of the site,” Ms Zafon said.

“Our model maximises use of the space. It’s like the Airbnb of warehousing; they log onto our system, book the number of bays they need, tell us what time it’ll be arriving, and what time it’ll be leaving. By maximising the use of every bay, we’re maximising the value of the warehouse.”

And there’s every chance that when the loads do leave the warehouse, that they’re going out on a truck booked on a single-trip contract.

Trucking companies are increasingly using Uber-style technology to deliver for clients.

Erskine Corp managing director Alex Brookmyre has embraced the technology, which allows an inventory manager for, say, a supermarket chain to put the details of a load onto an app, and wait for the offers to come in from trucking companies with the capacity to deliver.

“The term uberisation suggests something a little more immediate than what we do, but the general vibe is right,” Mr Brookmyre said.

“At first we were worried. We thought that it would diminish our long-term contracts and lead to us having drivers sitting around just waiting for a call to come, like the old days of the taxi industry.

“But what we’ve found is that our contracts are more base-level, and we supplement that with single-contract trips. It helps us to use up spare capacity, because in the same day you might get a request to move gear to two different supermarkets, say 2km from each other, that’s being stored in the same multi-hire warehouse. In the past, that would’ve been two different trucks picking up at two different warehouses, because the supermarkets were each contracted to different trucking companies.”
This scenario is one of four prepared by the Centre for Supply Chain and Logistics at Deakin University, as part of a scenario planning project for the Department of Infrastructure and Regional Development, to inform the Inquiry into National Freight and Supply Chain Priorities, part of the work for Australia’s National Freight and Supply Chain Strategy.