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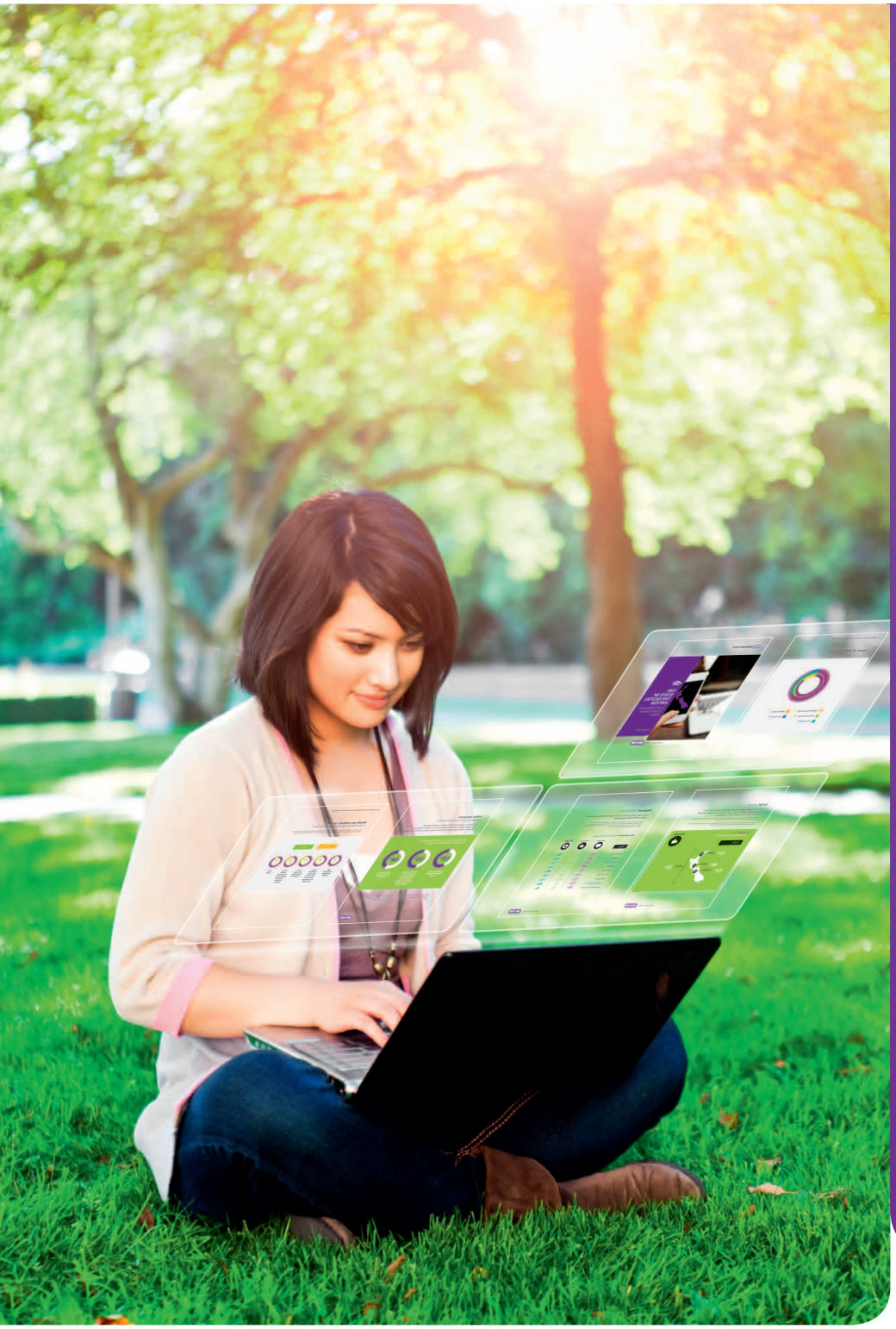

THE FUTURE OF BUSINESS

Australia 2040

February 2015

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The business environment of the future will be fundamentally different. Within three decades, technology will have completely changed the way businesses operate, the work we do, and the way we live.

Work styles and spaces will be more dynamic and decentralised, with personal technology enabling increased mobility and accessibility.

This will have real implications for local and national economies, as well as key industries such as transportation and energy. With many internal and external factors shaping the future of business, the key will be getting future-ready.

2040 and the impact of technology

by Simon Raik-Allen

By 2040, we will have experienced a major shift in the way we work. Transactionally every business interaction will be formalised, automated and digitised, but the biggest impact will be on what we currently call 'the workplace'.

The changes will be enabled by technology, but they will be driven by the rising cost of energy and transport, which will dictate that our social interactions are localised to keep the impact on the environment to a minimum.

Live locally, work globally

The focus of 2040 will be the 'suburban village'. You will live, work, eat and learn primarily within walking distance of your house. Communities will start to pool their resources and share. Councils will split into smaller enclaves. The suburban and community websites, involved with borrowing and trading goods, will be in full swing in 25 years. You'll be able to trade with your neighbours, list your skills on local noticeboards, and find local experts to fix an ailing solar panel. Drones will deliver packages between communities or even a coffee and a bagel to your current location.

Rather than the office, or even the remote workspace, localised centres will emerge as the home of business – giant warehouses, which are used by employees from many different companies, spread around the globe. These will be based around suburbs or communities, as a response to the growing expense of constructing traditional inner-city office buildings.

These lightweight, inter-suburban work centres will house the technology that makes the interconnected workplace possible. Within each will be rooms filled with giant wall-sized screens allowing us to work in a fully virtual, telepresence model. Banks of 3D printers would be continually churning out products ordered by the local community.

JETPACKS

In another example of Kiwi ingenuity, the jet-pack has moved from science fiction to reality with the commercial development of jet-pack technology by the Martin Aircraft Company. The Martin Jetpack was developed by entrepreneur Glenn Martin in Christchurch in 1981. Over 30 years later, the company has developed a jetpack capable of flying for over 30 minutes at altitudes of up to 800 feet. The jetpack is currently designed as a first responder vehicle or as an unmanned transport vehicle. For fans of science fiction from the '60s and '70s, a number of flying cars have also been developed recently, though few have reached further than the prototype stage.

Hologram workers

Your workforce could be a globally connected group of people, contracted to provide services for your business. It's also likely you may never meet the people that are working for you, well not in person.

In 25 years' time the holographic projection of people and things will be the biggest change to the workplace since email. Seminars, that became webinars in the 90s, will now become holonars. You will sit in virtual auditoriums, next to three-dimensional light-based images of your colleagues from around the globe watching a hologram on the stage of someone giving a talk. And you will do this just as easily as you gather in the office today.

Launching a new business and hiring 500 people could be done in minutes. Your company could be just you and a couple of project managers: the thinkers, controlling every aspect of the company through new digital interfaces. The wall-sized touch screens would allow you to design new products, guide the use of raw materials and channel resources to where they are most effective would be done all with the wave of your hands.

You will launch many projects all at once and only give them a small amount of resource to start. They will have to prove themselves to earn more capital, so competition and evolution will drive the way business operates.

HOLOGRAMS

Holograms began life as a classic parlour trick, known as 'Pepper's Ghost'. Dating back to the 19th Century, this is an illusion that took advantage of a well-angled mirror to project the reflection of a ghost in a hidden room. The simple technique is still used to some degree today, particularly in the entertainment industry. Today, hologram research is in full swing and there are a number of glasses-free 3D projection innovations in the pipeline. Applications are moving beyond entertainment, into areas such as health, education and commerce.

SELF-DRIVING CARS

Self-drive vehicle technology is targeted at safety, efficiency, convenience, and of course – minimising the impact on the environment. Although a number of automotive manufacturers, such as BMW, are working on prototypes, internet giant Google, which has been working on self-driving car projects since 2008 has made some of the most significant progress in the technology. This year, Google unveiled a brand new self-driving car prototype, with no steering wheel, accelerator or brake pedal. It is the first truly driverless electric car that ferries two people from one place to another without any user interaction. The vehicles are designed to be shared as a replacement for taxis rather than personal cars. Current expectations are that self-driving vehicle technology is about five years away from being mature enough to be out on the streets, with some great advances of late from Google and Ford.

Mind control

2040 will also herald the decade of thought activation, allowing us to make the most of a new breed of personal technology, which will be attached to us permanently.

Forget "wearable tech" – in 25 years' time you'll be able to have chips embedded in your body, allowing you to access everything from phone calls to appliances.

Your body will have chips that interface with various parts of your body to either report on your health so you can manage your food and vitamin intake, or send signals to various organs to help regulate your body. Nanobots will crawl though your veins performing maintenance. Your mind will also be a lot more integrated and there will be many things you can control just by thinking about them.

Getting paid

By 2040 we'll also start to see the emergence of a broader, stronger set of currencies that are internet-based and governed by independent bodies that manage an international network of exchanges.

Currencies will likely emerge as a way for businesses to work within their closed networks, with major corporations able to create and manage their own money, make internal payments – such as payroll, and even trade with other enterprises.

Any business will be able to make its own cryptographic currency – to buy and sell at values regulated by the market and at the perceived value of the company. As this trend develops, exchanges of currencies, much like we have today, will arise entirely independent of national economics.

DRONES

Unmanned aerial vehicles (UAVs), commonly known as drones, are aircraft without a human pilot aboard. Its flight is controlled either autonomously by on-board computers, or by the remote control of a pilot on the ground or in another vehicle. Historically, drones were simple remotely piloted aircraft, but autonomous control is increasingly being used. Drones are in common use for military and special operations, but also appearing in a small but growing number of civil applications, such as policing and fire fighting, as well as non-military security work, such as surveillance of pipelines. There are many possible uses for drones in the future, from freight and transport, to surveillance and compliance.

Returning to the village

A lot of traditional work, in the trades for example, will morph significantly to a more technology centric approach to take care of fully automated home and office environments as hardware and software start to dominate the physical world.

Your house and belongings will be comprised of thousands of microcontrollers, servomotors and sensors controlling every aspect of the building and environment. Technicians will be able to log in remotely to diagnose and fix issues. Robots may arrive at your door, remotely controlled or autonomous, to perform circuit replacements, or new product installations.

Getting future-ready

Business is very inefficient today, particularly around decision-making and project management. This is because we lack the numbers and the depth of information to make them relevant to our business decisions.

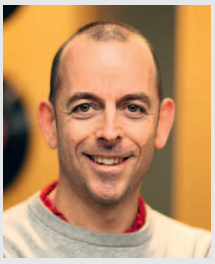
So, becoming data-driven is key. Getting dashboards to gain visibility into how your business is performing is how it is all going to be done.

The first step you can take towards being successful in 2040 is to get out of the paper world. Everything you do in paper now is stuff that you will have to throw away – it doesn't feed into your data.

To take charge of your business data today, get your accounting software and start with some charts. That's the simplest thing you can do and it could be a powerful first step to prepare your business for the next 25 years.

ROBOTS

These technologies deal with automated machines that can augment the role of humans in a wide range of areas, from performing precision or repetitive manufacturing tasks to going where people can't go in dangerous or hard-to-access environments. The concept of creating machines that can operate autonomously dates back to classical times, but the use of robots for practical purposes became widespread in the 20th Century. Today, robotics is a rapidly growing field, as technological advances continue and new robots are designed serve an ever-wider variety of practical purposes, whether domestically, commercially, or militarily. Many robots are currently employed in jobs that are hazardous to people such as defusing bombs, mining and exploring shipwrecks.



Simon Raik-Allen is MYOB's Chief Technology Officer. His role involves looking at the current and future trends in technology and how they can be developed to benefit New Zealand's SMEs. According to Simon, technology will play a major role in the work of every New Zealand business operator by 2040.

The rooster's crow wakes the farmer at 5am on 1st January 2040. He gets out of bed, switching the 'rooster' ring tone on his smart device to off, before launching the farm management app on the dashboard of his tablet.

He inspects the overnight report from the farm's monitors, paying particular attention to soil moisture meters embedded in the soil around his forage pasture. He runs a small diagnostic programme on an alarm that is alerting him to a power fluctuation in one of the fence lines, noting he'll have to send a line runner bot out to repair the break before any of the herd notice there's a gap in the electric fence.

He enjoys a coffee with his wife, who has already fired up the business management app and is checking the latest overnight prices while doing the banking. He checks on one of the camera feeds in the office to make sure the dairy cows are lined up in front of the auto milk shed, being gently herded by a pair of rolling barriers, which guide them through the gates. He'll go down shortly and check his herd is comfortable and happy, but first he needs to launch the drone from its hanger to head out on the first of its visual inspections of the property.

As he heads out the door, he checks the irrigation app on his smartphone, and selects the best irrigation pattern for the day's weather forecast he's just received and the precise moisture content of the soil. Look's like it'll be another good day – might even get a bit of rain later.

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