No prize for first but days of set-forget are finished

ROGER MONTGOMERY

It's a widely held belief that there's lots of money to be made investing in new technology, particularly technology involved in or associated with creative destruction. But the truth about who wins from new technology — even technology and developments that change the course of history — is eye opening. What's more, it is especially relevant in an environment where everything from driverless cars and cashier-free supermarkets to clean energy and the sharing economy uproot the old-world order and invite investors to make billions.

Today's list of transformative technology threatening to disrupt legacy businesses and their revenue models is longer than at any time in history. Backed by obsessive and patient investors willing to fund them, technology companies in fields as diverse as cloud computing or personalised medicine offer the promise of a win-win for consumers and investors.

> Investment strategies built on hope will eventually come back to bite the hopeful

Unfortunately, the equation is stacked in favour of losses.

Only a few stocks will ultimately make and retain their money from "new tech" but many will be destroyed by it. The funding of unprofitable enterprises, by deep pocketed private equity and venture funds, is fuelled by a hope that new business models and consumer concepts are superior to the old.

Take the ride-share economy: it might have some superior attributes to the individual-ownership model we are all familiar with but are the businesses that supply the service superior to their ancestors? In some cases they are. Netflix and Spotify might arguably be better business models than the Blockbuster and Virgin Music chains but is it the case for all new models?

What are we to make of a comparison between an existing business that grew organically towards profitability to one whose expansion and market share gain must be fuelled by a benevolent band of shareholders and banks?

Investors need to think very carefully about creative destruction. While it is my experience that it is easier to pick the losers than it is the winners — and Australian blue-chip listed companies harbour plenty of potential losers — investors need to consider the time frames involved.

Some technologies and enterprises such as ride-sharing, music streaming and online dating take off, apparently overnight, while others such as software as a service or battery storage take decades to evolve and emerge.

Investing in new technology also requires an understanding of the new technology company's dependence on the resolution of any bottlenecks in their particular ecosystem. For example, high-definition TV manufacturers couldn't really enjoy the revenues from the broad adoption of their technology until filmmakers had the cameras that produced content of the required quality.

Other side of the coin

Investing in old technology requires an appreciation of how quickly the new technology can resolve the issues in its ecosystem. While Amazon's arrival in Australia may be a negative for many incumbent retailers, equally there are hurdles in front of Amazon's expansion which will delay the effects that many investors are pricing in.

Investors need to appreciate the stark reality that "creative destruction" can be a euphemism for the waste laid to incumbent businesses and their revenue models by operators that cannot be businesses because they have no revenue!

And that is the other thing that investors must consider, irrespective of whether they back the incumbent or the disrupter, it could be their own wealth that is destroyed.

Consider the combined market capitalisation of Twitter, Uber and Tesla of $US140 billion ($175bn). Collectively they make a profit of zero, zilch, nada, nothing.

The hope that they eventually will profit, from an emerging technology's potential to satisfy a customer's needs and deliver value in a superior way, is undoubtedly what drives investors to support their models of profitless prosperity.

In many cases, however, it is equally doubtless that investment strategies built on hope will eventually come back to bite the hopeful. Only its timing is a mystery.

Perhaps the most important thing to remember when investing in "the promise of a future untrammelled by the past" (to quote Howard Marks) is that many technologies that changed the world left no investors richer. Consider for example when television first appeared in the 1950s; more than 90 US manufacturers including Admiral, General Electric, Magnavox, Philco, RCA, Silvertone and Westinghouse dominated the market. In 1953 there was even a Radio-Electronics-Television Manufacturers Association, and it reported almost 7.3 million TVs were made in the US. By 1995 none were made in the US.

In cases like these it was the consumers who benefited at the investors' expense. From supermarkets to postal services, and from transport to entertainment, established businesses and entrenched incumbents are fighting a new wave of online, international and cheaper solutions to the customers' problems. If you are managing your own share portfolio, say good bye to "set-and-forget".

Roger Montgomery is founder and chief investment officer of the Montgomery Fund. www.montinvest.com

Guiding light for charities

MY WAY

Tanarra offers advice to a sector with an expertise deficit

RICHARD FERGUSON

Tom Forde is the head of Tanarra Philanthropic Advisors, a new not-for-profit funded by investment banker John Wylie giving free financial advice to charities.

Is Tanarra Philanthropic Advisors the first of its kind in Australia?
There are plenty of service providers in the philanthropic space but we are unique. We're only advising charities, not philanthropists, and we're giving our advice for free. There's already legal advice, accounting advice out there ... the deep dives into management and consulting.

We're trying to provide guidance on board-level strategy ... we're trying to bring the investment banking model to the charity sector.

How did you land this job, Tom?
I had been working with BHP for six years; I was not enjoying my work there (laughs). And John (Wylie) was speaking to a colleague of mine who suggested me. I met him and he talked me through the concept, I went through the usual interview process. I've taken a step back financially but it's just such a great opportunity. I'm a pragmatist; these charities will struggle if they don't have a commercial case, an understanding of the market mechanism. I hope I can help strike that balance.

John Wylie is best known in finance and in sports administration. Why this move?
When John sold his last investment firm (Carnegie Wylie) to Lazard, he made a fair amount of money on it and started a foundation with his wife. Through that experience, he often asked other charities about their strategies and financial plans and he was often underwhelmed by the responses. There's a skills and capacity deficit in the sector when it comes to financial and analytic skills.

Are you going to be competing with non-profit organisations like Social Ventures Australia?
We're not really trying to compete with anyone; we're trying to be complementary. And we're reaching out to other players in the sector to find out what they're doing and maybe help with problems.

What's the biggest struggle this venture has faced so far?
The tricky part for us is that we can't help everyone. John is financing this out of his own pocket but there are limitations. We've had to say no to some requests.

AARON FRANCIS

Tanarra Philanthropic Advisors CEO Tom Forde is enjoying the not-for-profit sector

You mentioned the venture is unique ... how does it work?
It's a consulting model. I'm in charge of the initiative and I have all the resources at Tanarra available to me; if it's debt financing or strategic advice or anything, we can pull in guys in the wider Tanarra team to help.

What's holding charities back in Australia?
There's a little bit of a bottleneck with the increased reporting requirements charities now have and a much greater focus on results. If they don't meet the results expectations, they don't get the money. And that's making donors (both individuals and corporates) a lot more structured in their giving. I think there'll be more consolidation as naturally some of the smaller charities can't meet these hurdles. Where we can help is with meeting those requirements.

What changes do you think donors and philanthropists want to see?
I think increasing the sophistication and analysis within charities is going to help, as well as some consolidation. This is a huge sector remember: $150 billion per annum of revenue, 3 million volunteers, 1.2 million staff. There's a lot of duplication of effort and inefficiency because there are so many players.

What do wealthy individuals have to do to improve the return on investments in the charity sector?
There needs be a more structured shift in how donors invest in charities. They need to be making medium to long term partnerships and ensuring sustainable funding. Most charities are surviving quarter by quarter, if not month by month. Just give them a cheque year after year is fine.

But what would be much more helpful would be offering a partnership for three or five years, and we'll try to broker those partnerships. We'll also be helping charities with how to use corporate and financial language so that donors feel more comfortable in creating these sorts of partnerships and making investments.

Many commentators say we don't have a strong philanthropic culture here like in the US or Britain. What do you think?
It's difficult to compare to those other countries by dollars per capita, because there's so many ways to give these days. You can donate time, goods, loan out assets like office space, there's corporate partnerships, and you can do social media. And there's a whole new market emerging around social investment products like social bonds, impact investing, managed funds. They might be seen as classic philanthropic donations but it's still a gift to the sector.

But charities are also asking us for advice about mentoring and capacity-building. So if people with financial or analytical skills want to donate their time, I'm sure most charities would love that.

What are your investments?
I've got a pretty leveraged portfolio. I'm quite risk tolerant, my friends all make fun of me for it (laughs). I've got a few investment properties, a few ETFs, a few equity plays.

SenSen speeding towards recognition on the ASX ... in real time

TIM BOREHAM

SenSen Networks (not yet listed)

A few years ago the University of Technology Sydney hired tech boffin Subhash Challa to inject a little entrepreneurial flair into the thinking of its students.

One would have to say he succeeded, because three years later the youthful professor quit to focus on commercialising SensSen, the "internet of things" play based on a platform developed within that centre of learning.

SenSen, which is raising $6.5m of capital ahead of a backdoor listing, has existing clients including NSW's Roads and Maritime Services (RMS), Crown Casino and Abu Dhabi Airport.

SenSen — which apparently means "a thousand times a thousand" in Japanese — is about software that extracts data from a video camera in real time. The resulting data means faster decision making and automated processing for customers.

SenSen may well become a friend of investors, but it's a foe of speeding motorists and parking transgressors.

In 2011, SenSen won RMS as its first commercial customer, to operate its emerging network of point-to-point cameras (motorists are booked if their average speed over a given interval exceeds the speed limit).

"We came from nowhere to win a significant slice of that market," Challa says. Listed speed camera operator Redflex is a notable rival in that market.

SenSen then modified the product for parking enforcement and it is used by a number of local councils.

The company also monitors double yellow-line offences for Singapore's Land Transport Authority and has the mandate for camera-based security at Abu Dhabi Airport, as well as Colonial First State's local shopping centres in Australia.

It also counts passengers getting on and off Sydney's ferries.

Challa says the company had so many proposals that it decided to focus on the speed and parking markets — before another opportunity knocked.

"Crown heard about us and called us," Challa says. "They wanted to understand patron and staff behaviour at the tables."

SenSen modified the product, now called SenGame, to extract data from table cameras such as occupancy rates, hands per hour and bet types. SenGame is used on 200 tables at Crown's Melbourne money den and is likely to be expanded to Crown's Burswood facility in Perth.

Given Crown helped developed the product, Crown gets a royalty if other casinos adopt the product.

SenSen's revenues have been modest to date: around $500,000 in 2014-15, $1.1m in 2015-16 and a likely $2m in 2016-17 (subject to audit). In the case of the point-to-point stuff, revenues are based on an upfront and ongoing licence fee, while parking is based on an annual licence plus a payment that depends on the volume of infringements. The casino work is based on a monthly per table fee.

The listing vehicle is based on the shell of Orpheus Energy, an Indonesian coal explorer that gave up the game citing "less than favourable conditions".

As with most tech plays, success will depend on who has the most useful mousetrap rather than the most highfalutin innovation. The capital raising is based on a $5m general offer and a $1.5m share purchase plan, both at 10c.

The offer closes on September 18 in view of an October 3 listing.

Brainchip (BRN) 18c

Brainchip is the same but different to SenSen, but has a similar interest in gambling (so to speak). In terms of pervasive and all-knowing surveillance, it's similarly Orwellian in tone.

Brainchip has devised a product, Brain Chip Studio, that will strike fear into anyone with evil intent: camera facial recognition.

Brainchip's IP is based on the esoteric yet in-vogue notions of spiking neural networks and neuromorphic computing. Ask your teacher about those ones.

An addendum to security cameras, Brain Chip Studio has the ability to recognise thousands of faces in seconds — key appeal to authorities tackling anything from terrorism to soccer hooliganism.

BrainChip is currently being used by the French Homeland Security department — which has a bit of work on its hands these days — and is also being trialled by the French National Police in Toulouse.

In casino settings, the technology has already been used to identify card counters: undesirable punters who always win because they can memorise what cards have been dealt.

The casinos are also interested in detecting the good punters and rewarding them for their loyalty.

Brainchip's technology, devised by entrepreneur and Brainchip chief technology officer Peter Van der Made, is another extension of machine learning that threatens to make clutzy human brains redundant by about next Christmas.

"It's all about recognising repeated patterns without being taught to do so," says CEO Louis DiNardo. "A face is little more than a pattern."

Brainchip is involved in discussions for trials with 17 casinos in what's estimated to be a $250m global market.

But the bigger opportunity lies in anti-terrorism and civil surveillance, a circa $500m market globally.

Brainchip listed in September 2015 in a reverse takeover by Aziana, raising $4m at 15.7c apiece. It then raised a further $4m in April last year and $6m in a placement last June (at 15c apiece).

So it's been back to the well more times than a thirsty camel, not that such practice is unusual for a minnow.

In the June half Brainchip generated $US369,000 ($482,000) of revenue, mainly from a currency gain and residual oil and gas royalties. The $US133,000 of sales revenue was sourced mainly from the acquisition of French artificial intelligence outfit Spikenet Technology for $790,000 in mid 2016.

With cash of $US4.5m and expected current quarter cash burn of $1.8m, Brainchip looks adequately funded. But it only takes a conventional noggin to work out it will likely have to raise more capital in the near future.

Tim Boreham edits The New Criterion

Tim.boreham@independent-research.com.au