

Last month, we published the [Top 10 ICT Trends for 2022-23](#) and you can listen to the podcast from CommsDay [here](#). This month, hopefully the following selected quotes, facts, commentary and book recommendation will stimulate some new ideas!



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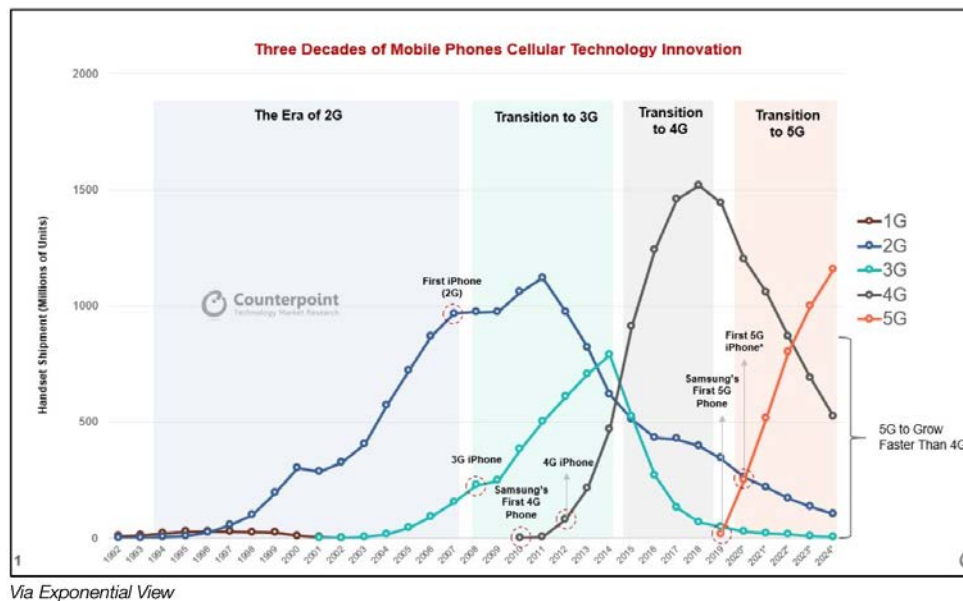
Australian tech sector generating \$167 billion in output per year

“In Australia today the technology sector is generating \$167 billion in output per year and employing over 860,000 Australians. That makes it equivalent to our third-biggest industry by value—just behind banking and mining and our seventh-biggest employer. In the last 30 years, we have created 100 Australian tech companies worth \$100 million plus. More than 20 have gone on to become unicorns. They include great companies like Atlassian, Canva, Afterpay, Wisetech, Seek, REA, Airwallex, Safety Culture, Go1, Culture Amp, Employment Hero.” Robyn Denholm, AFR 12.3.22

Some of the roll-on effects include increased government attention to technology (though there is still a long way to go!), unicorn alumni spinning out new startups, more foreign investment and graduates giving preference to jobs at startups over working for big corporates. Paradoxically, one of our largest institutions, Commonwealth Bank of Australia, claims to be the largest technology company in Australia with over 6,500 people in technology roles and technology investment of over \$1.5 billion per annum. *AFR 2.3.22*

5G ramping faster than 4G – each generation growing faster than previous

[LINK](#) 23.3.22



“5G use-cases are very industry specific”

John O'Mahony, Partner Deloitte Access Economics, CommsDay Conference, March 2022

Despite the speed with which 5G is ramping (see graph above), there is an awareness of the gap hampering its potential. As stated in a recent CommsDay conference by John O'Mahony: “Whereas for previous waves of *mobile innovation*, 2G, and 3G and 4G, I think we've been able to largely rely on consumer use cases, personal use of mobile devices, and that has spread into our workplaces. ... I think the step change [with] 5G is that the use cases are very industry specific. It's not just general connectivity and communications. It's different for factories, for farms, for mines, for plants. And for that reason, there's a much bigger awareness and education needed to explain 5G.”

Beyond 50 Mbps, an increase in broadband speed benefits low-value applications (like downloads), with no perceptible benefits for well-behaved high-value applications (video, gaming, conferencing). The challenge for operators is to uncover the arguably elusive opportunity that 5G promises as humans will probably be quite satisfied for most use cases, with 4G.

“Profits of the entire (telecommunications) sector are less than one quarter the profit of the smallest of Australia's top 4 banks”

Andrew Sheridan, VP Regulatory and Public Affairs, Optus at CommsDay Summit, March 2022

How long can this continue? Given the massive, sustained investments required for telco infrastructure, this must change .. and it will. TPG and Telstra's recent Multi-Operator Core Network (MOCN) commercial agreement is a good start. Telstra will share its Radio Access Network (RAN) for 4G and subsequently 5G services and in return, will gain access to TPG Telecom's spectrum across 4G and 5G. [LINK](#)

eSIMS open another door for Apple and Google into telco heartland

The margin pressure on operators continues to increase. eSIMS are software-based SIMS that enable users to sign-on to the network without having to purchase and install a physical SIM. If signing up to a service provider is part of the mobile setup process, coupled to Google or Apple Pay services, the ease and one-step process simplicity with which setup can now occur, may be attractive enough for many

to sign on without even dealing with an operator. Once one operator does this, others will have to follow and (oh no!) the commoditisation of mobile will accelerate.

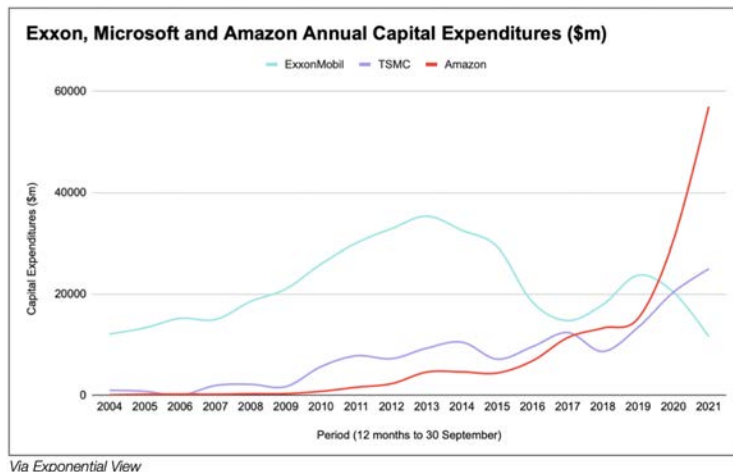
Study reveals that gaming is a startling 167x more valuable than subscription video, and 42x more valuable than social media, on a per-GB basis.

Not all Bytes are the Same: Focusing on Value not Speed, Canopus, March 2022 [LINK](#)

Now that broadband coverage has reached critical mass, in the next phase of broadband, telcos will need to focus on profit. The key will be optimising their networks for high-value applications and pricing services according to value and user experience. To do this, telcos will need to understand the different application types, their relative value to users, and the relevant network metrics that determine user experience.

The new oil: Amazon’s capex was, until 2019, lower than Exxon-Mobil’s. Now, it is almost five times the size.

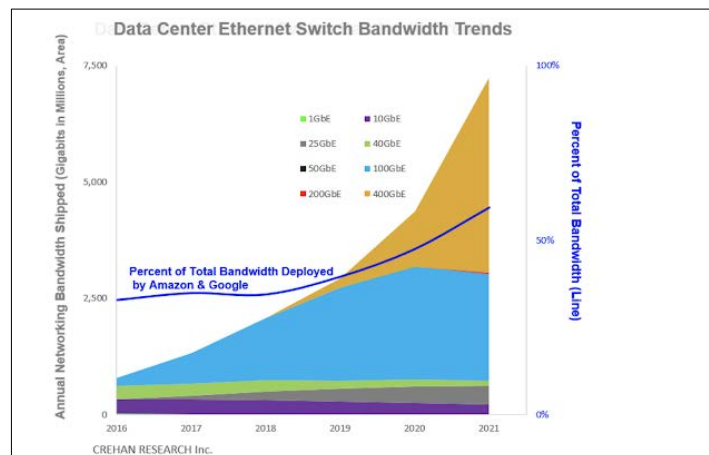
While enterprise is becoming increasingly infrastructure-less, software and apps still need infrastructure. That infrastructure is increasingly being built within the hyperscalers.



Amazon and Google deployed >50 percent of total data centre Ethernet switch bandwidth in 2021

Converge Network Digest 18.3.22

The following graphs reinforces the shift in infrastructure acquisition from the enterprise to the hyperscalers.



“The notion of protecting the network is no longer relevant. You need to protect your users and your apps”

“Enabling the secure transformation to the cloud”, Zscaler 2021

As your corporate applications head cloud-wards, access is via 5G and the internet – if you no longer control the network, how can you protect users and applications?

Maths: Elegance and Symmetry of $(111,111,111)^2$

$$111,111,111 \times 111,111,111 = 12,345,678,987,654,321$$

Range: The Key to Success, Performance and Education

David Epstein, 14.1.21

In his book, David Epstein shows that the way to succeed is by sampling widely, gaining a breadth of experiences, taking detours, experimenting relentlessly and juggling many interests – in other words, by developing *range*.

‘If you’re a generalist who has ever felt overshadowed by your specialist colleagues this book is for you’ – Bill Gates.

Stay connected

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