

BRIEF: Is telecommunications approaching its end-game?

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Abstract: Respected UK telecommunications consultant William Webb has published a book titled "[The End of Telecoms History](#)". In the book he argues that current fibre and mobile technologies offer all that is needed for the delivery of service, and that future industry growth will be limited. This thesis has support, as data traffic growth is slowing and prices remain low in real terms. If so, the industry will need to shift its approach to investment, pricing, and regulation over the next few years to reflect a new reality.

The end of telco history?

Webb's thesis is that, for most users, data speeds beyond 10 Mbits/s on mobile devices and 50 Mbits/s on fixed broadband do not significantly enhance user experience. At these speeds, other factors, such as Internet server limitations, are more important. The most data-hungry application, video streaming, requires only about 3 Mbits/s for high-definition quality thanks to progress in video compression. Consequently, data usage growth is stabilising, and is expected to plateau by the decade's end.

This isn't a new view. The Australian Government's Vertigan Review (back in 2014) took a similar, limited view of fixed broadband requirements. That analysis had its critics, but also its supporters. The debate was essentially about whether new applications would emerge that would push demand for fixed data speeds beyond 50Mbps.

The best candidate for such an application was and remains virtual reality, but this highlights the problem: VR has been a "candidate" for over a decade now, and we're still waiting. At best, its potential is unproven. And techno-optimists do not take into account other drivers, such as the backlash against online participation (especially youth participation) that seems to be brewing.

AI will generate some new traffic, but it may also displace other uses e.g. video streaming. After all, there are only 24 hours in a day. In reality, data demand is slowing. Our own consumer media surveys show that SVOD subscriptions have plateaued in Australia. IoT generates little data, and 5G enterprise applications have proven surprisingly difficult to develop at scale.

The economic backdrop to this prediction is sobering. As we discuss in our most recent [Five Year Telecommunications Industry Outlook](#), the Australian telecommunications industry struggles to cover its capital costs. Real telecommunications prices have fallen, even as more data capacity has been delivered. 5G has not been a major revenue generator, though it has certainly cost a lot to build. At some point, the rate of investment in new network technologies needs to be questioned.

Why does this matter?

The future is hard to predict, and we cannot be sure that new demand will not appear. But it is important to consider how the telecommunications industry would need to adapt to Webb's scenario if it is confirmed. Several points come to mind:

- **Investment:** Telecommunications investment over the last three decades has focussed on implementing successive generations of fixed and mobile technology, improving performance with each iteration. Once the necessary performance has been achieved, what next? The investment emphasis shifts to other parameters:

reliability and ubiquity. LEO satellite growth suggests that ubiquity is almost in our grasp. For domestic telecommunications operators, the focus will be on low-cost and high-availability operation of networks. In short, a utility model of operation which will drive even more network-sharing (i.e. consolidation) and wholesale/retail separation than we currently have.

- Pricing: telecommunications pricing had a loss-leader element in the days of rising usage and new technologies. Once this growth can no longer be counted on, short-term returns become more important. This will drive upward pressure on prices until both operational and capital costs are covered. More network-sharing will reduce costs, but will also reduce competitive tension, which should drive more stable pricing.
- Vendors: A stable telecommunications network is not good news for vendors. Vendor's business will continue, but at a lower level, meeting demands for ubiquitous access and higher levels of maintenance.
- Policy: As now-ubiquitous networks increasingly meet user needs, policy focus will shift to affordability and reliability. This may mean more policy activity in wholesale and retail price regulation, access regulation, consumer protection, and network security.

The industry that would emerge would be cost-conscious. Network differentiation would fade, and the competitive focus would be on price and marketing. In fact, we are already some way into this transition. While Webb has his critics, there is no doubt that the telecommunications industry is currently moving in the direction he predicts.

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