

Seeing over the Horizon

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Melbourne Business Analytics Conference

15 March 2021

Thanks for having me. Today, I'd like to speak about:

- How we use data to see over the horizon and predict what our customers want and need so that we can improve all of our touchpoints with them.
- The nature of our services at Optus is "always on connectivity", meaning we have rich, insightful data; and as we improve and grow our network this will grow stronger. I'll give you some current examples of how we are using data to add value for customers, communities and performance.
- And we are only at the beginning of the "Age of Data", and 5G will unlock so much more for all of us.
- 2020 was a tough year for many people. Lockdowns and work from home have led many to describe their 2020 as one long Groundhog Day.
- Let me take you back to one particular day in 2020: Sunday, 31 May. Here's what was going on:
 - Globally, there were nearly six million recorded cases of COVID-19, and 4,461 people died of COVID on this day.
 - President Trump terminated America's relationship with the WHO.
 - George Floyd protests had the U.S. and other places around the world on edge.
 - In Hong Kong, pro-democracy demonstrators took to the streets to protest China's increased security laws.
 - Citizens in Geneva – one of the world's wealthiest cities – stood in a mile-long line for food aid.
 - In Australia, we nearly all were working from home, and many of us couldn't visit with loved ones due to lockdown restrictions.
- According to the Twitterverse, this day – 31 May – was when we were at our happiness low point in 2020.
- This is the finding of "Hedonometer", a company which captures and uses publicly available information and crunches that data to evaluate the general public's mental health.

- Of course, data can also be collected on physical health, and can influence decisions which can improve both mental and physical health outcomes.
- For instance, during 2020, Optus' sister company, DSpark, collaborated with epidemiologist and governments, sharing insights on how people moved. The patterns showed how COVID-19 could theoretically spread across cities, towns and jurisdictions, so that Governments could make more informed decisions about where resources like testing clinics were most effective at halting the spread. Decisions which could, quite literally, save lives.
- This is a powerful example of how we can improve outcomes through analytics.

For we are now truly in the Age of Data.

- In 1990, media coverage and business school 'strategy cases' were dominated by companies like GM, Ford, Exxon and IBM. These companies revolved around the 'physical', with balance sheets loaded with assets.
- Now, companies that trade in data – the "oil" of the digital era – are the ones that capture our attention, imagination – and dollars.
- There's Uber, which knows where we go and what we eat.
- Facebook knows who we know and what we share with them.
- The mammoth Amazon knows what we buy.
- And perhaps most impressive of all, Google knows our intentions as we use the behemoth's search engine to research our next holiday, car or baby name.
- If you described this to someone 30 years ago, it would have sounded like witchcraft.

And even today, this collection of information may feel invasive to some, even "creepy".

- That's why it's important for those of us who recognise the benefits of data to help people understand the good that can come from collecting insights in the right way.
- We are not using data to 'control' consumers and citizens – rather we are using it to help empower them by giving them options to tell us what they want done better, or to determine what we can do better for them.

- Like oil, data must be extracted safely. Privacy must be respected.
- Like oil, data must be refined. Data should be aggregated so that patterns emerge – and individuals aren't identified.
- Yet unlike oil, data is an ever-increasing resource pool.
- It is with certainty I can say that tomorrow's data reserves will be greater than today's.
- Whatever we are doing, we already leave digital trails: when we are running, shopping, or even just sitting in traffic.
- Chips are everywhere with the number of connected devices still increasing.
- Optus supplies this connectivity, the backbone of data analytics.
- Our devices are a necessity. According to Deloitte's Mobile Nation report, our mobiles are the first thing we pick up when we leave the house; 94% of us take our mobile device when we go out, more than the 92% who take their wallet or 88% who grab their house keys.
- Nearly nine out of every ten Australians own a smartphone. We spend on average of three hours every day on our devices – connecting with family and friends, playing and working. Leaving digital trails.
- That persuasive, always-on connectivity means Optus is the custodian of insightful data about our customers.
- When we then combine that data with AI and machine learning, we can move from explaining what is happening to predicting what is going to happen next.
- Seeing over the horizon will also improve our communities. For instance, when spotting patterns in public safety, the knowledge of where a crime is likely to happen next can give law enforcement a superhero-like ability to be where they are needed the most, when they are needed.
- It is this use of data - solving issues before they even emerge – that excites me the most, and it is using data to see over the horizon that I believe will help businesses recover from a tough economic year.

- Optus' own use of data directly relates to achieving our vision of being Australia's most loved, everyday brand with lasting customer relationships.
- Optus' focus is on turning data into actionable wisdom.
- A single data point is pretty meaningless, but if enough are gathered, it becomes information, then knowledge from which we can inform insights, then wisdom, on which we can take actions which will improve outcomes for customers and our business.
- By identifying trends, we can develop new and improved offerings that our customers will want.
- I'd like to provide three examples of how Optus is using our data to add value to our customers, our communities and our performance.
- A year ago, as Australians went into lockdown, we saw visits to fitness sites skyrocket as people sought workouts and exercise classes online. So – Optus gave our customers what they were looking for by launching our second Optus Sport channel: OS Fitness.
- Since its launch, OS Fitness users have streamed 490,000 workouts, and customer feedback has been positive, with one customer describing their surprise and delight with the new offering by saying, "what a pleasant surprise" and another simply saying, "Love the new fitness stuff".
- Of course, we are using feedback to refine our plans to add more workouts, features and partnerships so we can deliver users an even better experience. That's real a value add to our customer.

- 2: Data can be used to identify what's working – and where improvements should be made for the benefit of our communities.
 - When analysing visitor movements in the Gippsland Lakes region during the Australian Black Summer bushfires, we can see that some visitors begin to leave when tourists are first warned to evacuate the area on the 23rd of December, when authorities already knew conditions were bad and going to become worse.
 - But it wasn't until a second warning on the 29th of December that visitors can be seen to decrease sharply, many who were by then trapped or hindered by road closures. Why didn't visitors heed the first warning?
 - What could have been done to encourage more people to exit earlier, when it was safer to do so and to save emergency responders efforts for other activities? Our data has identified that a better call to action is needed in these types of situations.
- Another way we can contribute to our country is using data to reduce our environmental footprint, such as through real-time monitoring of the network load on the cell site level.
- As we have thousands of sites and millions of customers, the sheer scale of this type of undertaking is only achievable when we combine data with AI and machine learning.
- But by doing this, we know which mobile equipment is not being used and can be powered-down, optimising our overall power consumption and improving energy efficiency.

- 3: It will come as no surprise in 2020 we saw movements out of our capital cities. In Perth and Darwin, the change wasn't overly dramatic, but in Sydney and Melbourne, people movements decreased by 87% and 90%, respectively, during lockdowns.
- As we look to upgrade sites and enhance our capacity, our customers' usage patterns inform where activities will mean the most to customers and 'new' normals.
- We launched Optus "MyNetwork" initiative directly in response to customer input, and it is a stellar example of valuable, actionable qualitative input.
- MyNetwork allows customers who have experienced poor service or a disconnection to drop a pin at the offending location so that we know about where issue areas lie. It gives our customers the control to tell us when and where a problem is occurring or to provide us with feedback on how we can do better.
- MyNetwork helps us inform our infrastructure plans and improve our network and keep customers informed.
- In three months, 16,000 customers used MyNetwork to provide us with feedback. These customers flagged more than 40 concerns with our network. If we had relied solely on our old methods of customers reporting problems, only two of these network events would have been escalated and actioned quickly for an immediate response as opposed to being a queue to look at. So, crowd-sourcing input provides us early, on-the-ground indication of how issues are impacting our customers, so we can respond with urgency above that warranted by a low-impact 'background' technical issue.

- Data allows us to see over the horizons, and predict what's next. So what's next over the horizon for data analytics?
- Optus is rolling out a new network across Australia: 5G.
- Our rollout is focussed on a customer-centric 5G which is designed to meet the way we know consumers will need and want to use the 5G's benefits.
- For instance, a characteristic that is easily understood is "5G is fast", and we are thrilled with recent independent speed tests that demonstrate we are getting this right with Australia's fastest 5G, including the fastest in both Melbourne and Sydney.
- Yet 5G brings with it other characteristics, like improved Massive Machine Type Communications, which provides connections to large numbers of devices that intermittently transmit small amounts of traffic.
- In other words, blips and bleeps from even more devices will improve how we understand consumers, communities and entire populations – and in turn feed the decisions that allow us to create better businesses, local government services and a better Australia for all.
- Enhanced Mobile Broadband – also enabled by 5G – will in turn improve video conferencing and advance new services like augmented reality and virtual reality – which will underpin government and businesses ability to deliver services that improve outcomes – think healthcare, education, and safer work environments.

When Optus delivers 5G, our connectivity will impact more than just our own customers' experience – we will improve the quality of data and of the solutions it can inform.

- As Optus improves our services and builds out 5G, more devices will connect, more data points will evolve, and the network effects will increase the speed with which that data can be turned into actionable wisdom.
- So, as we all stand here at the doorstep of the Age of Data, just remember: we are just the beginning.
- There is so much more potential ahead of what data can do, how we can use it, and what can be achieved, solved and accomplished.
- I hope that this fills you with the same inspiration we have to pursue data's full potential.