Cloud Gaming – I.T Report

**What does it do?**

What is cloud gaming? Most people today have already used or had experience with a video streaming service such as Netflix. Cloud gaming (Wikipedia, 2021) is basically the same thing, but instead of streaming your favourite tv show or movie, you are streaming a video game. Currently, the main limitation of cloud gaming has to do with internet speeds and network latency. For someone using a cloud gaming service to achieve stable gameplay, the user must have a high-speed internet connection with low latency. Any interruptions to this connection will result in gameplay cut-offs and having high network latency will result in a user’s input to the game being delayed. This is the main barrier of entry for most users who would want to access cloud gaming and in countries like Australia where average internet speeds are slow, this is completely unfeasible. Currently there are 3 main companies that provide cloud gaming as a service, Microsoft Xcloud, Nvidia (NVIDIA, 2021) and Google Stadia. Microsoft’s Xcloud functions much like a streaming service, where users pay a monthly fee and are given access to a library of games, Nvidia’s Geforce Now allows you to stream whatever games you already have for a monthly fee but does not give you a library of games. Google Stadia requires users to pay for the streaming service itself and then requires users to pay for the game they wish to stream as well.

Over the course of the next 3 years nothing it likely to improve unless global internet speeds drastically improve. While there are some countries that have fantastic internet speeds such and South Korea, there are still many countries such as Australia with laughable internet speeds. In countries such as these the growth of cloud gaming as a service depends almost entirely on the average internet speeds being improved upon. As well as having fast internet speeds, cloud gaming requires significant infrastructure to be built, including data centres and server farms which requires significant time and money. Another issue that cloud gaming must contend with is money, for value. Google stadia failed miserably in this regard, as users had to pay for the streaming service itself, and then pay again for the games instead of just paying for the streaming service and having a library of games included, like how Netflix operates. Google stadia also suffered from numerous performance issues such as low image quality, latency issues, gameplay stuttering and cut-off’s as well as other various performance issues that made gameplay inconsistent and unplayable.

**What is the likely impact?**

Given that internet speeds in the future are likely to get significantly faster with the advent of 5G telecommunications and fibre optic internet, it is entirely feasible that within the next decade there will be many people that switch to cloud gaming as their main way of playing video games. A likely effect of this is a significant reduction on the sales of high-end computer components such as graphics cards, CPU’s and motherboards that people typically purchase when building a gaming-oriented PC. Because cloud gaming allows the games you play to be entirely streamed and handled by a remote server, there would be simply no need for an individual to fork out thousands of dollars on a PC just to play video games. My prediction is that cloud gaming will be most impactful on 2 specific groups of people; people that frequently travel and people who are not able to afford a gaming PC. People that travel a lot would benefit as they typically already carry with them a laptop and cloud gaming would mean that with a sufficiently fast internet connection, their laptops would be capable of playing even the most intensive games without the need to a powerful PC. Secondly, there would people on tighter budgets that cannot afford to dish out $1000’s of dollars on a gaming PC that would be able to game on average computers with the help of a cloud gaming service. If cloud gaming does in fact become widely adopted in the future, we could see a significant reduction in physical store fronts that sell video games (EB Games) as more cloud gaming services adopt a Netflix type of subscription service, whereby paying a fee monthly you get access to a library of games that is constantly updated. This has already happened to the *now dead video rental industry such as BlockBuster* and physical video game storefronts could see a similar fate. (ASH, 2020)

**How will this affect you?**

From a personal standpoint I do not think that cloud gaming will have a major impact me. Given that I have a relatively modern gaming PC and do not travel much, cloud gaming would only be of use to me very limited scenarios. The only time I can see cloud gaming impact me directly is when I partake in LAN parties with friends. This is a rare occasion due to the fact that it is quite a bit harder for my friends and I to find time to have a LAN party. Even then, I almost always bring my own computer to use during the LAN party and so cloud gaming once again would not really make a difference. Given that current internet speeds in Australia are not suitable for cloud gaming, it would be quite some time before I would even consider using a cloud gaming service personally. As for my family and friends, my younger brother could potentially benefit from cloud gaming in the future as he is currently an avid gamer but does not have a PC powerful enough to run a lot of intensive games. My friends that do game, are in a similar situation to me, where they don’t travel much and already have powerful PC’s; the effect of cloud gaming on them, would be insignificant as well for the foreseeable future.

# References

ASH, A., 2020. *The rise and fall of Blockbuster and how it's surviving with just one store left.* [Online]   
Available at: https://www.businessinsider.com.au/the-rise-and-fall-of-blockbuster-video-streaming-2020-1?r=US&IR=T  
[Accessed 21 04 2021].

NVIDIA, 2021. *Geforce Now.* [Online]   
Available at: https://www.nvidia.com/en-au/geforce-now/  
[Accessed 21 04 2021].

Wikipedia, 2021. *Cloud Gaming.* [Online]   
Available at: https://en.wikipedia.org/wiki/Cloud\_gaming  
[Accessed 21 04 2021].