

"I think the best case is so good that it's hard to imagine.
I think the worst case is lights-out for all of us"

Sam Altman, CEO & Co-founder OpenAI (ChatGPT) - Fortune January 2023

Al had what may turn out to be its Netscape Navigator moment.

That moment was ushered in on November 30, 2022, when Sam Altman, OpenAI CEO, announced ChatGPT.

ChatGPT is to AI what Netscape Navigator was to the internet. Web browsers existed before Netscape Navigator, but it wasn't until Navigator that most people discovered the internet.

Just when you thought the thunder had passed, Microsoft flashed an additional US\$10B investment into OpenAI (ChatGPT) late January 2023. Google struck with its own competitive announcements.

Over \$100B of market value slid like a tectonic plate and injected excitement, caution, and fear into the technology world.

It is estimated that ChatGPT ramped to 100 million monthly active users in 2 months – the fastest uptake of any technology in history, catching many by surprise. Even Gartner made no mention of it in their 2023 predictions published late 2022. They clearly didn't see it coming.

It's been a busy new year – a couple of strategic planning sessions and a seed fund raise for an exciting new proptech business. We also had much satisfaction in helping to place high-quality colleagues (and friends) caught up in the tech 'slim down', in new jobs. Not everyone is on diet and there is plenty of good talent. Great way to start 2023!

Previous Newsletters, including this one, are available on our site in pdf $\frac{\text{HERE}}{\text{HERE}}$

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ChatGPT – not a toy, a game-changer



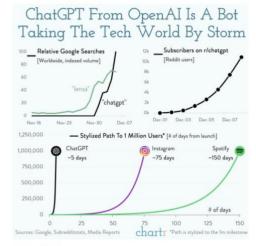
ChatGPT is the most significant technology that has emerged within the last few years.

Look no further than the take-up rates: 100 million monthly active users in January, two months after launching. This makes it the fastest growing consumer app ever, with a user base that is growing faster than TikTok's.

Its impact has only just begun to be appreciated.

ChatGPT will challenge everyone, raising questions everywhere about our lives, education and work. Robots challenged physical, blue-collar work, ChatGPT challenges work, including yours!

Given its importance, there are two important questions everyone should ask:



Source: Chartr

"What is the best way to use ChatGPT?"

Like any tool, if you don't know how to use it, you probably won't get the best result. In ChatGPT's case, the better the brief, the better the response.

"Where can I add value beyond ChatGPT?"

With well over 100 million users, you can be sure that your peers, colleagues, clients, competitors, professors, teachers, parents etc are already using it. To provide some insight into this question, below is a list of applications as well as challenges.

Recap - For some, a quick recap may be in order:

ChatGPT is a large language model (LLM) chatbot developed by OpenAI based on GPT-3.5. It has a remarkable ability to interact in conversational dialogue form and provide responses that can appear surprisingly human.

How does GPT-3 work? GPT-3 calculates how likely some word can appear in the text given the other one in this text. It is known as the conditional probability of words. For example, the word chair in the sentences: "Margaret is arranging a garage sale... Maybe we could buy that old ____ " is much more likely to appear than, let us say, an elephant. That means the probability of a word chair occurring in the prompted text is higher than the probability of an elephant.

In essence, GPT-3 is a text predictor — its output is a statistically plausible response to the given input, grounded on the data it was trained before.



What sparked ChatGPT's explosive uptake?

On 23rd January 2022, Microsoft announced that it would invest \$10B in OpenAI, having already invested \$1B in 2016.

A red-flag shot up - the threat of coupling ChatGPT with Bing, Microsoft's search engine that most aren't even aware of.

In response, days later, Sundar Pichai, Google's CEO announced that it was opening the conversational Al service called "Bard" to a group of "trusted testers" before wider release later this year. We can expect much more to follow shortly.



And so the war began. It will continue to play out in 2023 across both the west and east.

Use Cases: Here are some applications ChatGPT is being used for:

- **Content creation** for blogs, articles, social media, advertising campaigns, title generation, web sites, SEO, almost anything you can imagine but it's not perfect.
- Content review almost any content such as books, movies, products, translations, summaries
- Software development producing software code, at least the foundation. Don't rely on it.
- **Verification** of statements, models, processes, events
- Education on almost any topic, much like Wikipedia, but more conversational and interactive.
- Customer support a 'help-desk' like support for almost anything
- **Credit support** determining one's credit-worthiness and gaps, options
- Statistics on almost anything such as market size, longevity

Challenges: ChatGPT is barely 3 months old and like any new technology, there are plenty of kinks and unanswered questions to be aware of including:

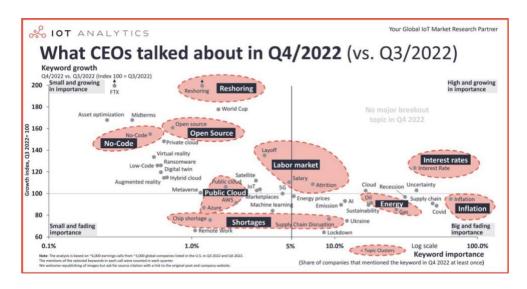
- Accuracy the content generated by ChatGPT in response to a query can sometimes be inaccurate or even incorrect. For some use cases such as market predictions, 90-95% accuracy may be sufficient. However, for others such as healthcare, it may not be.
- **Old data** the current version of ChatGPT is still limited to 2021 data. We can expect this to change soon.
- **Privacy / Input** the better ChatGPT is prompted, the better the results. There is concern that this prompt information could contain corporate I.P. that should not be disclosed.
- Ethical concerns language models are only as good as the data they are trained on, and there are many ethical concerns related to the use of certain types of data, such as data obtained from social media or other online sources. These concerns include issues of consent, privacy, and bias.
- **Truancy** ChatGPT has already come into question at various educational institutions for being used by students for assignments. As we have seen previously with tools like YouTube and Google Search, shutting it down is not the solution.
- Malware ChatGPT can be used to compose every phase of a cyberattack, from crafting a convincing phishing email to writing malicious code to evading common cybersecurity checks. ChatGPT could essentially enable people with zero coding skills to become cybercriminals.
- Environmental impact language models require significant amounts of energy to train and run, and
 as their use becomes more widespread, their environmental impact could become a more pressing
 issue.
- Long-term societal impact: Language models are already having a significant impact on society, but
 their long-term impact is not well understood. For example, some experts have raised concerns that
 language models could lead to the displacement of human workers in certain fields, or that they could
 exacerbate existing inequalities.

ChatGPT is not a toy. It is a game-changer and the game has changed for good.



What CEOs talked about in Q4/2022

<u>LINK</u>



Results of research involving the Q4/2022 earnings calls of ~3,000 US-listed companies. The resulting visualisation is an indication of the digital and digital-related topics that CEOs prioritised in Q4/2022. The chart visualises keyword importance and growth.

Three themes noticeably gained traction (i.e. interest rates, the labour market, and reshoring). Some of the smaller technology topics that are rising in importance include open source and no-code.

References to chip shortages, supply chain disruptions, and energy prices decreased in the last quarter.

ACCC Broadband Measurements – flawed and biased

Disclosure: Canopus is a client of Bloch Advisory

The ACCC is using a flawed approach to measuring broadband in Australia, and this has serious implications.

To recap, the key objective of a national broadband measurement program is to increase transparency to foster a competitive market enabling comparison and choice for consumers.

ACCC Methodology: The ACCC has contracted a UK-based company to provide this. Their current method uses white boxes installed in

customer premises. A research paper released at the Asian Internet Engineering Conference in Japan a few weeks ago states that their results are 'largely flawed' and riddled with methodological errors and sampling bias. LINK

The Problem: The paper and recent articles in Communications Day [6th 7th 9th Feb 2023] explain several problems with the current measurement methodology including:

- Sample sizes that are statistically too small (in some cases less than 20 households) to be valid, relevant, or trustworthy
- Sample imbalances across ISPs that lead to biased results.



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 Comparison across different access technologies is flawed as, by their nature, they could have significant impacts on the actual speed received by a user.

Quality of Experience: Importantly, the authors bring into question whether speed alone is still a sufficient measure of broadband quality. Instead, they argue that quality of experience would be more appropriate given the nature of modern applications being used over broadband. One application that clearly illustrates the point is Gaming, which may only require 100's kilobits per second but is very sensitive to latency.

Consequences of the current ACCC measurements are significant. Consumers and business are being provided biased and invalid data upon which to select their ISP. Farcically, SPs have no idea what to make of the numbers, whether they top the list or not. Using broadband speed as the primary comparator can potentially unintentionally create perverse incentives, pushing network operators to behave in unintended ways.

Solution: Canopus Networks, an Australian AI technology specialist, has made the following offer: *a broadband monitoring solution for 100x more broadband services at the same cost as the existing regime*. The solution will monitor at least 400,000 broadband services; provide accurate, meaningful, and statistically sound comparisons of application experience; and cost no more than what is being spent today. Furthermore, the solution is fully developed and supported locally, and is globally validated in Tier-1 networks in Australia, Asia, and North America.

Let's fix this.

Save \$40 per month on your mobile - where's the catch?

Probably like many others, I was obliviously paying \$58 per month on a post-paid plan with Telstra. Pretty much, set-and-forget. Then I discovered an offer from Boost mobile: \$200 for 12 months including 140GB data.



Boost is a Mobile Virtual Network Operator (MVNO) that uses the Telstra network, supports international roaming and 5G (but does not (yet) support Apple watch SIM).

After several friends, family and I cut over to Boost, saving on average around \$40 per month, we are still looking for the catch. Please let us know if you find one.



Squinting to Streaming – 25-year evolution of watching sport





Feb 7, 2023 Lebron clinches NBA scoring record

Maths – triangles in a triangle

There are 47 smaller triangles contained in this larger one. If you have a few hours, check it out!



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