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GENERATIVE AI: IT'S NOT ALL HYPE

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“Artificial intelligence” and talk of its ground-breaking capabilities have been around for decades. Today, almost every company talks the talk around generative AI in particular but it’s unrealistic to believe that all have the requisite technological capabilities to develop it in the near or medium term. With that in mind, which are the companies making genuine advancements with the technology and how is it going to be transformational for their business?



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Within markets, the first half of 2023 was technology's year. Chipmaker Nvidia's share price tripled and Apple's market value hit the \$3 trillion mark. The "Magnificent Seven", as the select cohort driving returns has been labelled, includes the most familiar constituents of the group formerly known as the FAANGs, notably Alphabet, Amazon, Apple and Meta (formerly Facebook), which dominated markets in 2020 and prior years. The more recent surge came from the promise of artificial intelligence (AI), specifically "generative AI" which refers to technology that can generate content in the form of text, code, music, images or voices.

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As the former chief business officer for Google X, Mo Gawdat, discussed at Walter Scott's Research Conference in May, the term "artificial intelligence" was first coined in 1956 and there have been incredible developments in terms of machine learning in the intervening decades. Whilst, undoubtedly, there have been genuine advancements in the technology, the current excitement points to a "hype cycle" (akin to crypto currencies and the metaverse). But, unlike the metaverse, AI technology really is here, and it is moving forward. According to *The Economist*, only 70 companies in the S&P500 show no sign of incorporating AI into their businesses.

The Research team recently considered the material AI-related risks and opportunities facing companies and has been talking to management teams about their approach to the technology and how they view its likely impact on their businesses and industries. This included not just the more obvious expected beneficiaries

of the technology and those already experiencing top-line growth from its application, but those businesses that are using (or have plans to use) the technology to, for example, reduce costs or optimise the time that employees can spend on 'value add' initiatives. We haven't yet heard management teams overestimating the potential benefits of AI, with many emphasising that the technology will prove a slow burn with still uncertain potential and application.

Since 2019, Microsoft has made significant investments in OpenAI, leading to the launch of ChatGPT and integration into Bing, Edge and Office 365. The company's CEO Satya Nadella did not hold back in suggesting that the Bing-ChatGPT function would pose a significant threat to Google's search dominance. However, as I wrote at the time, whilst AI capabilities are likely to boost Microsoft's overall offering, Google's supremacy in search channels, its impressive product suite, brand strength and very rich data set for AI training are huge barriers to entry.

For Microsoft, it is about a lot more than search. In a recent discussion between CFO Amy Hood and CTO Kevin Scott, they suggested that the AI business could be the fastest growing \$10 billion business in the company's history. In terms of how such revenues will be generated, they identified two sources: i) the tools and services within the Azure infrastructure that customers will use to build their own AI apps and services, and ii) the "co-pilot" AI assistance which Microsoft has already released within its cloud platform.

Like Microsoft, Alphabet was ahead of the game when it acquired the UK-based AI group DeepMind back in 2014. CEO Sundar Pichai's announcement earlier this quarter that DeepMind would be merged with its internal AI research team, Google Brain, underscores the importance that the company places on the technology.

Although Microsoft beat the search giant to it, Alphabet has developed its own experimental AI bot, Bard, which is supported by appearing on the world's most used search engine, as well as an integrated search function providing generative responses. Revenues are generated via cloud services (SaaS and infrastructure), advertising (higher precision and cost-per-click potential) and engagement (YouTube and all other Google properties).

As a business that is at the forefront of creative content, it is no surprise that Adobe has been investing thoughtfully in AI over many years and is consequently very well-positioned in the space today. In early June, the desktop publishing software provider announced that its Firefly franchise, which will generate images through text prompts, is being integrated into its existing software franchises like Photoshop. Although this has only been released in beta so far, it has been one of the most successful launches in the company's history, with users generating more than 100 million assets.

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On Adobe's second-quarter earnings call, management highlighted the four drivers for the monetisation of Firefly: a standalone "freemium" offering that captures new customers; embedding of the AI functionality within key applications to drive higher ARPUs and client retention; offer enterprise customers the ability to create custom AI models and, lastly, industry partnerships. Chairman and CEO Shantanu Narayen made the following remark on the financial impact of AI: "in addition to all of that great work that we're doing on saving costs, I'm more excited about the top line growth that this is going to cause for us".

“Careful consideration needs to be given to [AI’s] regulation and diffusion”

Every previous major technology transition (enterprise software, cloud, SaaS, robotic process automation, etc) created both opportunity and risk for the IT services industry. The winners were those companies with consulting-led models, technology/skills leadership, and deep industry expertise. The losers were outsourcing-heavy businesses engaged primarily in low-value add, repetitive tasks where cost out was the primary objective. The pattern will likely be repeated with this AI-driven innovation.

IT outsourcing company Cognizant’s management certainly believes generative AI will be transformative, as a catalyst for dramatic enterprise reengineering similar in magnitude to the introduction of enterprise software 30 years ago. Management believes that it will present a range of opportunities and challenges for clients across most industry verticals and, as technology rapidly develops, business complexity increases, and competition

for relevant skills intensifies, the propensity for companies to outsource to trusted third parties, like Cognizant, will likely increase. The company is already applying the technology to its operations to enhance internal productivity and efficiency (more lines of code per unit of labour). The company has made two new partnerships, with Microsoft and Google, using the co-pilot model. For example, within healthcare, Cognizant has such subject matter expertise that there is real value to be added from co-creating foundational models alongside Google.

Additionally, on a recent call with the CEO and CFO, they told us that Cognizant has already started working with more than 100 clients to see where they can benefit from generative AI. In CEO Ravi Kumar’s own words “I believe, I continue to believe [generative AI] is a bigger opportunity than a threat. Any revolution has only created jobs of the future and taken away jobs of the past. The smarter ones will pivot to jobs of the future.”

AI is still in its infancy and careful consideration needs to be given to its regulation and diffusion. There are

plenty of data-rich companies with huge opportunities but, as confirmed by those examples referenced above and others with whom we’ve had discussions, there is still a long way to go. We will continue to follow developments closely and explore potential investment opportunities over time.

¹<https://www.economist.com/leaders/2023/06/29/the-widespread-adoption-of-ai-by-companies-will-take-a-while>

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