MUTUAL TRUST

Wealth matters

Foresight: Artificial Intelligence – investing to outlive the hype

> The development of AI is as fundamental as the creation of the microprocessor, the personal computer, the Internet, and the mobile phone. It will change the way people work, learn, travel, get health care, and communicate with each other. Entire industries will reorient around it. Businesses will distinguish themselves by how well they use it.
>
> BILL GATES, 21 MARCH 2023

Artificial Intelligence (AI) is not new. While the term was first coined in 1956, it wasn't until the 1990s that it gained broader popularity when IBM first developed 'Deep Blue'– a computer system specifically designed to play chess. In 1997, Deep Blue beat the reigning world chess champion, Garry Kasparov, demonstrating that a computer could excel in complex tasks when provided with the specific set of rules.

More recently, interest in AI surged with the initial release of ChatGPT in November 2022. Investors were eager to gain portfolio exposure to AI associated companies. For example, the share price of Nvidia – a technology company known for the development of chips used in AI systems – rallied over 250% in the nine months to its peak in August 2023. Interestingly, Nvidia is not a new company – it has been around for over 20 years.

In this Foresight note, we outline the importance of looking beyond pure-play AI businesses and investing in companies which are well positioned to outlive the hype. With the arrival of new technologies comes both opportunities *and* risks. The adoption of AI and its growing demand will likely have ripple effects across most industries. The benefits of productivity enhancements need to be measured against the potential for negative disruption and societal impacts.

At Mutual Trust, our approach to direct equities remains highly selective, with a long-term investment horizon. We acknowledge and actively research the upside potential of AI, while analysing possible inherent risks. Our proven approach of investing in companies with diversified business models provides opportunities to benefit from this paradigm shift. We remain confident that recurring revenue streams, strength of balance sheet and quality of company management are paramount for long-term investment success.

What is Artificial Intelligence?

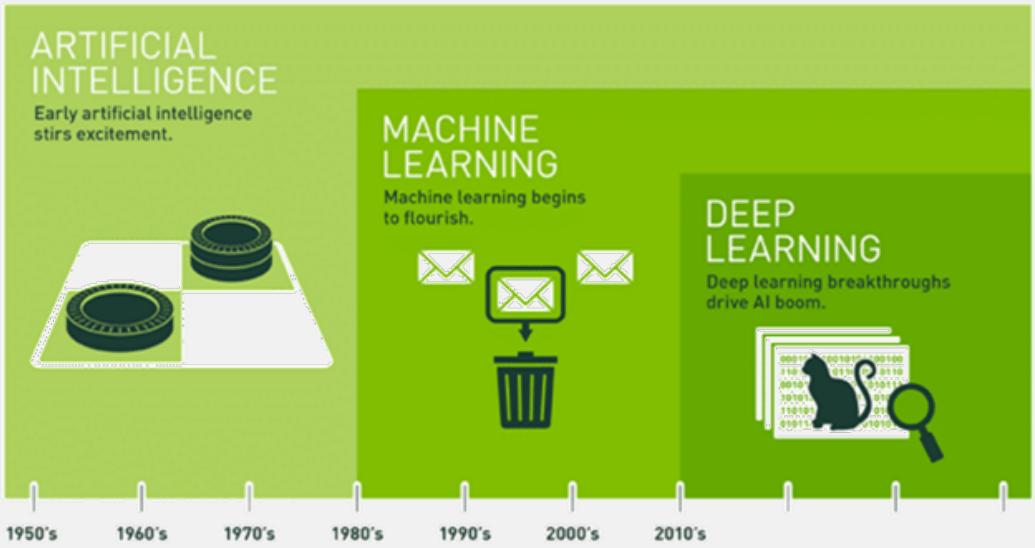
Artificial Intelligence refers to the development of computer systems and algorithms able to perform tasks which historically required human intelligence. These tasks include reasoning, problem-solving, learning from experience, understanding natural language, recognising patterns and making decisions.

Generative AI is designed to generate new content, often in the form of text, images or other data. It is not simply copied from existing examples – it is instead created by an AI system itself. Generative AI systems use techniques from deep learning, particularly neural networks, to produce original content based on patterns and data they have been trained on.

The main subsets or branches of AI include:

Machine Learning (ML): Machine learning is a subset of AI which focuses on the development of algorithms and models that enable computers to learn from and make predictions or decisions based on data.

Deep Learning: Deep learning is a subset of machine learning which uses neural networks with many layers (deep neural networks) to analyse and learn from large datasets. It has been particularly successful in tasks such as image and speech recognition.



Since an early flush of optimism in the 1950s, smaller subsets of artificial intelligence – first machine learning, then deep learning, a subset of machine learning – have created ever larger disruptions.

Source: Nvidia

Natural Language Processing (NLP): NLP deals with the interaction between computers and human languages. The main goal of NLP is to enable computers to understand, interpret and generate human language. It is used in applications such as chatbots, sentiment analysis and machine translation.

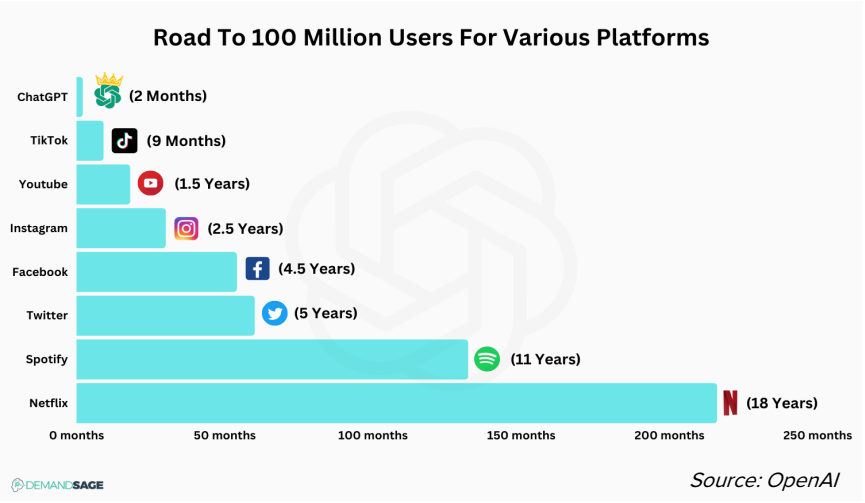
Robotics: Robotics combines AI and engineering to create autonomous or semi-autonomous machines capable of performing physical tasks. It is used in industries such as manufacturing, healthcare and space exploration.

These subsets often overlap and work in conjunction to solve complex challenges and create AI systems with broader capabilities.

Public interest has surged, so too have technology valuations

Interest in AI surged following the release of ChatGPT – a generative AI tool. Generative AI is able to generate new human-like content using natural language prompts. Just two months after its launch, ChatGPT reached 100 million monthly active users, making it the fastest-growing consumer application in history.

As public interest for the term "artificial intelligence" increased, so too did mentions by company management during company earnings calls in the recent earnings season. According to Reuters, the average number of 'AI' mentions per S&P 500 analyst call was more than double the previous quarter.



Source: OpenAI

This exuberance led to a significant re-rating of the technology sector in the first half of 2023, with the technology-heavy Nasdaq 100 Index having its biggest first half gain on record (up circa 39%) – predominantly led by the re-rating of the top seven technology companies. Goldman Sachs research estimates that the 'early winners' – i.e. some semi-conductor manufacturers and cloud service providers – have already seen their share prices appreciate about 60% in the first half of 2023.

Are early movers the best long-term investment?

At Mutual Trust, we remain focused on company fundamentals and valuations – ensuring to invest in high quality companies able to outlive the AI hype.

With the advent of new technology there is likely to be both winners and losers. Over time, market forces typically compete away supernormal profits. History is full of examples illustrating that early movers may not necessarily be the best investment over the long-term.

Yahoo! is an example of an early mover. It was once one of the most prominent internet companies, known for its web portal, search engine and email services.

When Yahoo! listed on the Nasdaq in 1996, its share price rose from $13 to close at $33 on its first day of trading. However, Yahoo! struggled to keep pace with competitors such as Google. Its search engine market share declined and advertising revenues faced challenges.

In 2017, Yahoo! was acquired by Verizon for $4.8 billion; a fraction of its peak valuation of $125 billion in 2000.

Time and again, overvalued companies and industries have seen their valuations eventually fall to a point which is more reflective of their fundamentals. This was evident in the canal industry in England, where share prices peaked in 1793. By the 1800s, the return on capital in canals had fallen from a pre-bubble peak of 50% to just 5% and within a few years the 'smart money' – early investors in canals – had moved into the new railway stocks. A similar pattern was apparent in the radio sector in the 20th century and Internet in the 21st century.

Excitement around the potential of new technologies typically attracts a significant inflow of investment capital, potentially driving company valuations materially higher. However, valuations tend to adjust downwards overtime as investor exuberance wanes.

AI development and deployment is costly

> "The world is poised to see an explosion of growth in the generative AI sector over the next ten years that promises to fundamentally change the way the technology sector operates. The technology is set to become an increasingly essential part of IT spending, ad spending, and cybersecurity as it develops."
>
> MANDEEP SINGH, SENIOR TECHNOLOGY ANALYST, BLOOMBERG INTELLIGENCE, JUNE 2023

Developing or integrating AI technology into a company's existing 'technology stack' is costly. Microsoft, Alphabet and Amazon are collectively spending more than U.S$100 billion in capital expenditure (capex) annually, of which a large portion is on cloud computing and AI. Generative AI is likely the fastest growing category of capex expenditure. The cash requirement for AI development and deployment is significant, however given incumbents have strong free cash flow generation, they are better positioned to maintain this level of investment.

Smaller enterprises may not have this luxury. Given the large capex spend required, smaller businesses seeking to integrate AI into their technology stack may partner with existing incumbents. This may continue to strengthen the economic 'moat' of the current leaders and protect their potential future growth.

At Mutual Trust, we focus on investing in companies with strong balance sheets and cash flow generation, which are therefore well positioned for the capital spending required to invest in AI development and deployment over the years ahead.

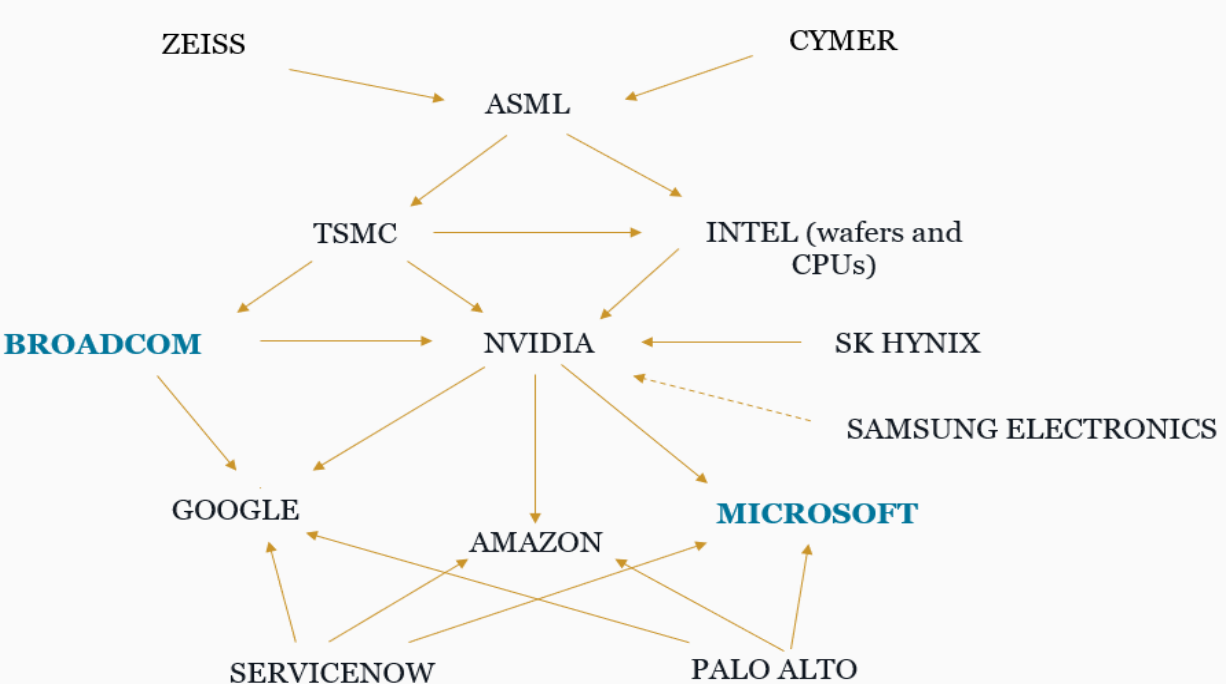
Investing outside the box: finding long-term winners

The opportunity set presented by the arrival of generative AI is large. Research by McKinsey & Company estimates that generative AI could add the equivalent of U.S$2.6 to U.S$4.4 trillion in economic benefit annually across industries. By comparison, the United Kingdom's entire GDP in 2021 was U.S$3.1 trillion. Bloomberg Intelligence estimates generative AI could become a U.S$1.3 trillion market by 2032.

The AI technology "food web" is complex and interconnected. Second and third order companies involved in AI development and deployment (both up and down the value chain) may ultimately provide better long-term exposure to the AI evolution for investors.

For example, Nvidia sits in the center as an integrated chip designer. However, next in the value chain are "hyperscalers". This is a term used to describe hyper-scale cloud providers or hyper-scale data centers such as Google, Microsoft and Amazon.

AI technology food web



Source: Mutual Trust

Given their vast cloud computing infrastructure, network of developers and internal tech capabilities, hyperscalers or cloud storage providers are best positioned to help clients deploy AI capabilities as part of a bundle of services. Hyperscalers typically have the financial muscle to deploy technology to clients worldwide, while continuing to protect and grow market share.

Next, consider the transfer of data. Fundamental to machine learning is the significant amount of information required to be analysed. Broadcom plays a major role in the efficient transfer of a large quantity of data over the network. It is essential for a network to be equipped to handle data transfer with low latency, i.e. quick response times. Microsoft Azure – a high end cloud server – and Microsoft's infrastructure is also pivotal in the deployment of AI. From a valuation perspective, Broadcom and Microsoft trade at 20 times and 29 times price to earnings ratio relative to 37 times for Nvidia (as at 27 October 2023) and offer a more diversified revenue base.

The Mutual Trust International Equity Portfolio includes Broadcom and Microsoft, both of which have exposure to - and may benefit from - the deployment of AI, whilst offering diverse revenue streams and strong free cash flow generation.

Outside the AI technology food web, telecommunication companies as well as data centers may also benefit from the broad adoption of AI technologies. For example, Comcast and Telstra are likely key beneficiaries on the back of the enormous consumption of data as AI deployment gains traction.

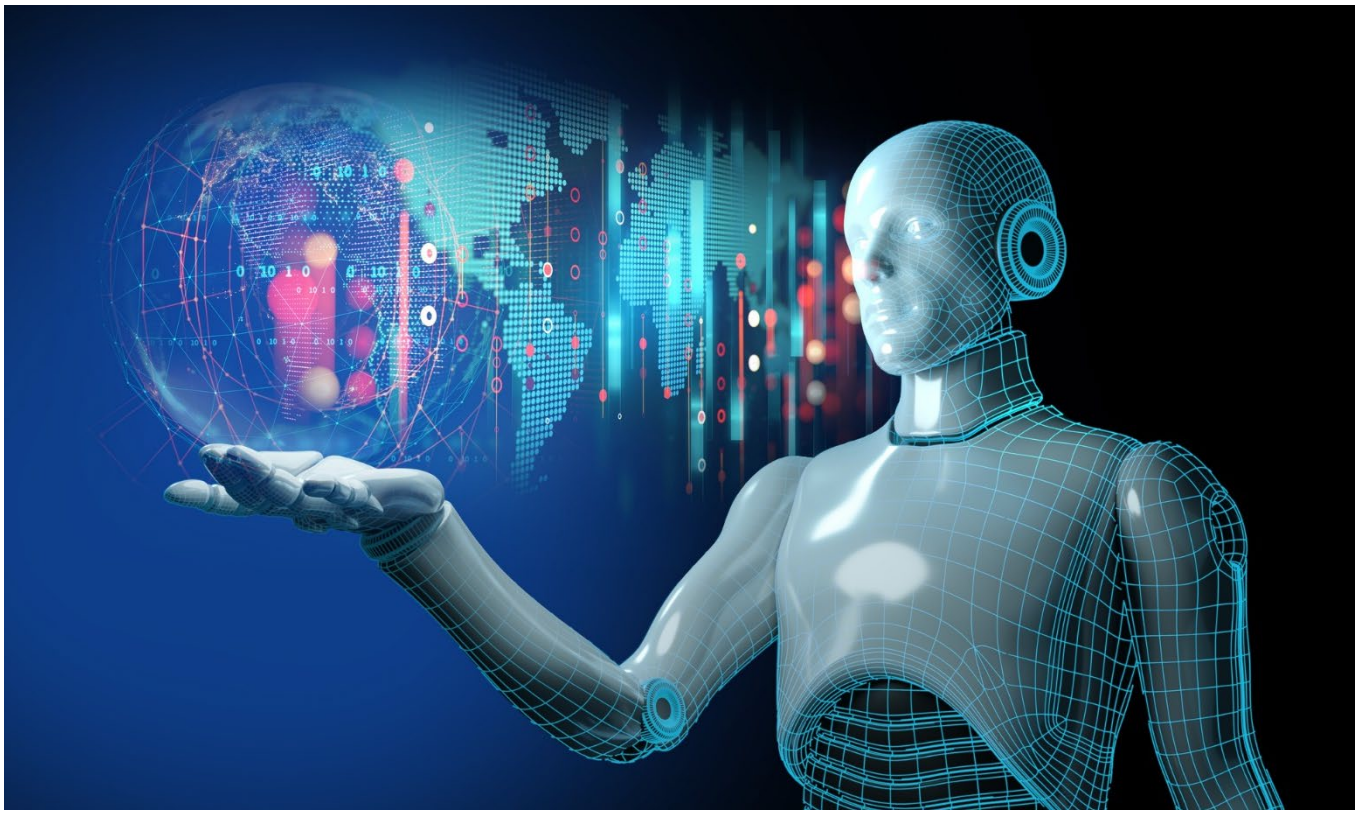
Portfolio Positioning: Opportunities to benefit from this paradigm shift

> "The impact of AI is real and rapidly evolving. It will have far-reaching ramifications for the way the world operates. The benefits of productivity enhancements through the unheralded processing and dissemination of data also needs to be measured against the potential for negative disruption and societal impacts. At Mutual Trust, we acknowledge and actively research the upside potential of AI, while analysing possible inherent risks."
>
> BRUCE BUDD, HEAD OF EQUITIES, MUTUAL TRUST

We do not expect investor interest in AI to dissipate in the near-term. However, it is important to remain rational. With the arrival of new technologies comes significant opportunities *and* risks.

At Mutual Trust, our approach towards direct equities has consistently been to remain highly selective and focus on the long-term. We look beyond pure-play AI companies, investing in companies well positioned to outlive the hype. Our proven approach of investing in companies with diversified business models provides opportunities to benefit from this paradigm shift, while remaining confident that recurring revenue streams, strength of balance sheet and quality of company management are paramount for long-term investment success.

Examples of companies in the Mutual Trust International and Australian Equity portfolios with AI exposure are outlined on the following page.



Technology: Microsoft

Microsoft is one of the big U.S. information technology companies driving the development and deployment of Artificial Intelligence. Since 2016, Microsoft has been building Azure into an AI supercomputer. Through the initial investment and collaboration, Microsoft and OpenAI pushed the frontier of cloud supercomputing technology, announcing their first top-five supercomputer in 2020 and subsequently constructed multiple AI supercomputing systems at massive scale.

Azure AI has a unique position with best-in-class, enterprise-scale, trusted solutions and is used by over 85% of the Fortune 100 companies. Microsoft designed Azure AI to enable developers, data scientists of all skill levels and even business users to quickly build, deploy and manage intelligent cloud-native apps so the power of AI can be utilised across an organisation.

Telecommunications: Broadcom

Broadcom Inc. is a global technology company specialising in semiconductor and infrastructure software solutions. It designs and manufactures a wide range of semiconductor products, for example networking chips. Broadcom's product portfolio serves critical markets including data centers, networking, software, broadband and wireless internet.

Broadcom also provides wireless solutions for devices like smartphones and laptops, as well as storage-related products. Additionally, the Company serves industrial and automotive sectors with their semiconductor solutions. With the focus on automation, monitoring and security, smartphone components, telecoms and factory automation, Broadcom has a natural nexus to the AI thematic. The growth in AI has increased the demand for semiconductors and data centre storage solutions.

Data Centers: Goodman Group

Goodman Group is an Australian integrated commercial and industrial property group which owns, develops and manages real estate globally. With the popularisation of AI including products like ChatGPT, Goodman Group sees a significant increase in demand for data centres globally. Demand for data storage is being driven by the adoption of generative AI by the big "hyperscale" customers, which include the likes of Amazon, Tesla and JD.com.

Goodman Group plans to develop three to four gigawatts worth of these facilities across its portfolio – equivalent to about $30 billion in end value.

Please contact your Advisor for further details or **click here** to listen to our recent Equities webinar addressing AI.

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