LIONTRUST
COURAGE · POWER · PRIDE

# Global Innovation

July 2023

James Dowey
Co-Head of Global Innovation

Storm Uru
Co-Head of Global Innovation

Clare Pleydell-Bouverie
Fund Manager

James O'Connor
Fund Manager

## The AI revolution: Why AI is not the new crypto

**James Dowey, Co-Head of Global Innovation team**

Not every great innovation is a great investment. This year, artificial intelligence has made a giant leap into the mainstream. It has been the subject of immense hype, both positive and negative. On the one hand, AI is supposedly going to launch economic growth into orbit. On the other, it is about to plot to kill the human race.

My teammates and I in the Liontrust Global Innovation team judge innovation based *not* on how impressive the technology is or by imagining science fiction-like scenarios, but on whether it can create genuine value for customers.

It may be mundane by comparison, but for any innovation, no matter how big or small, we ask can it dramatically drive down prices at the checkout? Can it make goods and services significantly better? The beauty of this approach is that when companies drive down prices or drive up quality, they can massively grow the market. There is hardly any more powerful source of investment returns.

Second, we ask of the value that innovative companies are creating for customers, can they *capture* a decent and long-lived share of it for us as shareholders? If everyone can replicate a great innovation, then many will, and no-one will make any money.

**Fig 1: A great innovation and investment needs to both create and capture value**

| | | Create value | |
|---|---|---|---|
| | | No | Yes |
| Capture value | Yes | Crypto | AI |
| | No | | Email |

Nothing but both will do, as figure 1 depicts. Creation without capture? Think of email. An impactful innovation for sure, which has created immense value in driving down communication costs for billions around the world. But no companies have been able to capture value and build a competitive advantage around either providing or using it.

Conversely, capture with relatively little creation? Not that I wish to court controversy but think of crypto as it stands today. A popular investment for many and at its peak commanded a market cap of $3 trillion – an historic feat of value capture, to be sure. But little value creation by comparison. It may come in time, but the fundamental use case of a better form of currency than dollars, pounds and other official currencies for now at least remains challenged.

When we consider AI, we believe it has the potential to be both a great innovation and drive great investment returns for the right companies. Indeed, it may prove to be one of the most important innovations of all time on both counts and unlike crypto it is already chalking up significant customer value across the economy. Make no mistake, AI will not be contained to the technology sector but will affect every sector of the market. Ignoring it will mean betting against it because it will be a brutal source of disruption for many companies on the wrong side of it.

## Value creation

We are all aware that we are living in a cost-of-living crisis due to high inflation and interest rates. The same is true for the cost of doing business. Innovation's ability to make things cheaper and make more and better from less will prove to be a godsend over the coming years and AI will play a central role.

As an example, take healthcare, a sector that accounts for around 20% of the US economy and is notoriously dogged by inefficiencies and high costs. Indeed, no other sector holds more potential to change both lives and the economy in the 21st century. Yet over 90% of research and development (R&D) for drugs fails. Companies such as Moderna, focused on mRNA-based drug discovery, and Salt Lake City based, Nvidia-backed Recursion, focused on machine learning driven drug discovery, are using AI to raise the productivity of R&D, lower the cost and speed up the process of drug discovery.

Long after discovery and approval, drug prices are inefficiently expensive across the system. Moreover, health outcomes vary greatly in quality between best and average practice. As the largest health insurer and manager of health care in the US, United Health is using AI to lower drug and treatment prices and raise the quality of outcomes. Robotic surgery, through companies like Intuitive Surgical with 12 million procedures now under its belt, are improving surgical outcomes today, but hold the potential to drive down the cost and improve the quality of surgery via AI and vast datasets of physical robotic surgical experience.

And healthcare is but one example. From retail, through companies such as Shopify, which is developing AI to help small businesses master e-commerce, through to automotive companies such as Tesla, leading the charge on autonomous driving, to finance through companies such as Upstart which is raising the efficiency of lending, AI has the potential to or already is driving customer value.

## Value capture

Innovation can enable companies to build formidable barriers, driving huge profitability. Giants of innovation this century such as Apple and Google trip off the tongue, but many other niche innovative champions have also achieved massive profitability. Indeed, the technology sector, arguably the most innovative sector in the market, has the highest free cash flow margins and returns on invested capital of any sector.

The key question for AI and value capture is whether it will prove to level the playing field between the best companies and the rest, or enable the best to accelerate further into the distance. We strongly believe that while many if not most companies will become more productive through AI, the biggest gains by far will be reaped by the best companies, strengthening barriers to competition and profitability. AI will not prove a saviour to companies on the wrong side of innovation and hoping to turn the tide.

There are three reasons for this. First, AI will likely exhibit increasing returns to scale and experience because efficacy thrives above all on learning from data and experience. For this reason we have investments in leaders in their niches with significant scale and data advantages, such as AirBnB, Spotify and Uber.

Second, even if everyone had the same data, they would not all use it. We agree with economic historians such as Nick Crafts who view AI in the historical lineage of *general purpose technologies* – major innovations such as steam, electricity and personal computers that impact most sectors of the economy and give rise to powerful ripples of many further, smaller and more specific, innovations.

What is special about general purpose technologies is that while they deliver incremental gains for most companies, they deliver massive gains for the most committed companies that are prepared to re-organise themselves around them.

Most companies will simply not do this because the vested interests of management are too strong. Fundamentally, AI automates decision making and will have the biggest impact for companies when it makes or helps make the biggest decisions. But such decisions have always been the purview of the most powerful and highest paid people in the room. Only companies led by exceptional management with very strong technological capabilities and a genuinely innovative culture will capitalise on this.

Third, AI is not just a very big innovation, but a tool for innovation itself. This will favour the competitive advantage of those companies that fully embrace it by boosting the productivity of their future innovative efforts relative to their peers. Continual innovation is the strongest barrier to competition of all.

My teammates and I invest in innovation because it is the biggest driver of stock returns. In our judgement, AI is a great innovation and presents an exceptional opportunity set for investment returns.

## Key Risks

**Past performance is not a guide to future performance. The value of an investment and the income generated from it can fall as well as rise and is not guaranteed. You may get back less than you originally invested.**

The issue of units/shares in Liontrust Funds may be subject to an initial charge, which will have an impact on the realisable value of the investment, particularly in the short term. Investments should always be considered as long term.

Investment in the Fund involves foreign currencies and may be subject to fluctuations in value due to movements in exchange rates. The Fund may invest in emerging markets/soft currencies or in financial derivative instruments, both of which may have the effect of increasing volatility.

## Disclaimer