

Technology – relevance to our investments now.

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for clients of Puzzle Financial Advice

In our 25/3/15 paper on “Technology is a really interesting investment theme at this time”, we discussed how technological change is accelerating rapidly and bringing about dramatic change. Some may have viewed that paper, as looking too far into the future.

So let me explain some of the ways that this rapid technological change, is changing the investment landscape today.

- Some of the ways to find better investments, is to invest in those **companies that use the new technologies to gain competitive advantage and increase profitability.** Increasingly, technology-use will be a key differentiator when choosing companies to invest in.
 - **Robots are one area that heavily uses artificial intelligence.** Companies that can harness these technologies most effectively will become more profitable. Consider these applications:
 - **Philips Electronics**
 - http://www.nytimes.com/2012/08/19/business/new-wave-of-adept-robots-is-changing-global-industry.html?_r=0
 - Historically, Philips used cheap labour in places like China to hand-assemble electric shavers. Robot technology has progressed so far, that when they set up their latest factory to assemble razors, they set up a factory in Holland full of robots – better than cheap labour.
 - **Foxconn** – which among other things, assembles mobile phones for Apple.
 - <http://www.businessinsider.com.au/foxconn-will-replace-workers-with-robots-2014-7>
 - <http://www.ibtimes.com/foxconn-replace-employees-1-million-robots-820629>
 - Foxconn has employed about 1 million Chinese workers. Increasingly, these workers are being displaced by robots.
 - **BHP & RIO** – automation in the Pilbara.
 - <http://www.abc.net.au/news/2014-04-25/computer-controlled-trucks-taking-over-in-pilbara-mining-wa/5412642>
 - “The new-generation trucks are not remote controlled, they are truly autonomous.” i.e. Modern robots, heavily use artificial intelligence capabilities.
 - <http://www.theaustralian.com.au/business/powering-australia/rio-rolls-out-the-robot-trucks/story-fnnnpqpy-1227090421535>
 - <http://www.miningaustralia.com.au/news/rio-s-driverless-trucks-move-100-million-tonnes>
 - Amazon using robots in distribution.
 - <http://time.com/3605924/amazon-robots/>
 - <http://www.dailymail.co.uk/sciencetech/article-2855570/Amazons-new-robot-army-ready-ship.html>
 - Tesla using robots to build cars.
 - https://www.youtube.com/embed/8_lfxPI5ObM?rel=0
 - **Summary:**
 - Robots are rapidly automating businesses everywhere.

- The companies that can employ and harness these technologies will gain a competitive advantage and drive greater profitability.
- **Technology providers** are a major source of new investment opportunities.
 - Technology has been a key theme for Platinum Asset Management.
 - <http://www.investopedia.com/articles/stocks/10/primer-on-the-tech-industry.asp>
 - Fanuc in Japan, as a major global supplier of robots.
 - Intel as a major global provider of processors and semi-conductors.
 - Google as a source of search engine capabilities and Android.
 - Electronic wallets from companies like Google & Apple, challenge the dominance of Mastercard & Visa.
 - Oracle as a key supplier of relational database technology.
 - Samsung as a provider of smart phones and components.
 - Financial technology companies – both a threat and enhancer of existing banks.
 - <http://www.accenture.com/Microsites/fsinsights/capital-markets-uk/Documents/Accenture-Global-Boom-in-Fintech-Investment.pdf>
 - Genomics. Applications stemming from cheap personalised gene sequencing.
 - E-commerce. Amazon, Alibaba, E-Bay.
- Internet Portals.
 - <http://www.zillow.com/>
 - This is a US equivalent of www.realestate.com.au.
 - Both Kerr Neilsen and James Packer have invested in Zillow.
 - [Www.tripadvisor.com](http://www.tripadvisor.com)
 - Internet Portals are a key investment theme of Platinum Asset Management because they can potentially deliver very high returns on capital.

Loss of jobs because of technology.

- <http://investmentherald.com/?p=169>
 - Advances in technology are leading to job losses at an unprecedented rate, far beyond that of any other time in recent history. A report last year titled ‘Oxford Martin Programme on the impacts of Future Technology’ estimated that up to 40% of current American jobs could possibly be lost to technology by 2030.