The accelerating power of technology: lessons for the future of fund distribution
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The financial services industry is undergoing significant technological change, and the fund management industry will not be excluded from this. Fund managers, distributors, transfer agents (TAs) and platforms will all need to evolve in order to adjust to these changes and potential disruption. In this paper, we analyse whether these market participants have sufficient technological understanding to deal with the changes that will come, and look at how these firms can learn from other industries about embracing technological disruption.

The paper will also discuss how firms which have sought to understand, embrace and act upon technological disruption can enjoy material success. We specifically explore trends such as financial institutions increasingly hiring technologists to senior positions, and look at where more work may be required. The paper will then discuss technological disruption around distribution and blockchain, and what the funds industry needs to do to ensure it realises the commercial opportunities these changes may bring.

What is the disruption?

The rate at which technology is developing and changing is unheard of in the modern era. Fund managers, distributors, TAs and platforms need to ensure they stay ahead of the curve in exploring new concepts, trends and ideas. This requires firms to identify the opportunities that disruptive technology may bring, which may force some to adopt a completely different rhetoric and way of thinking about the commercial landscape.

Predicting change is not an easy thing to do, and even the best modern technology is not (yet) capable of enabling us to see into the future. What businesses can do, however, is put in place the structure, partners and people required to help them gain an appropriate understanding of technology. Only with this knowledge will firms appreciate how ‘tech’ can be leveraged to meet and drive future market demands, rather than being deployed to maintain the status quo. It is not just a case of seeing new technology as a means by which existing processes can be modernised, but as a tool to reinvent those processes altogether.

Understanding the changes that will come, such as altered buying patterns among clients and disruptive technology usages, and the possible implications of these evolutions is key for the funds industry to thrive. Once firms fully appreciate the impact disruptive technology will have, they will be able to build an effective strategy around it.

Distribution is likely to evolve, and the upsurge in online platforms must be considered by fund managers in particular, if they are to grow their businesses across generational divides and barriers. Many firms are already known to be exploring new tech, including blockchain, to understand how it can be leveraged to create efficiency, although it may be too early today to be actively building the infrastructure around it.
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History is littered with examples whereby once successful or thriving businesses and professions faded into obscurity through a failure to evolve. Those industries that remain relevant today are the ones that embraced change.

**Case Study: Print newspapers and what not to do**

The demise of mainstream print newspapers is well-known. Newspapers’ first threat came with the advent of television, prompting more consumers to watch rather than read their news. The Internet was the disruptor that has sent the print newspaper industry into a terminal decline. A failure to understand and embrace online technology properly, or change the way they operate, has rendered a number of print titles obsolete. The past experiences of print newspapers should be noted by the funds industry as a case study of what not to do when confronted with change.

But what were the issues faced by print publications, and how can the funds industry learn from them?

**Error 1:** Many publications did not have an online strategy. Numerous publications failed to understand and develop the appropriate technology while some did not charge for real-time digital content initially (and many still don’t to this day), yet continued charging for print editions. Computer savvy customers simply opted for the free online versions increasingly available through superior technology devices leading to depressed revenues due to falling subscriptions.

**Lesson 1:** Market participants should embrace and explore technology innovation otherwise they risk getting left behind. Adopting technology is simply not enough though. It is imperative the funds industry evolves with the technology, and adjusts their business model accordingly to ensure the commercials make sense.

**Error 2:** Some publications launched websites too early ploughing huge sums of capital into creating an online presence when it lacked traction.

**Lesson 2:** The funds industry needs to recognise technological change will happen, but patience is critical. Adopting “disruptive” technology such as blockchain prematurely can cause problems if the technology does not succeed.

**Error 3:** Newspapers have not adapted as demographics have changed. Younger people want news in real-time and in an easy-to-use format. A print newspaper offers neither. It is true that print retains a loyal consumer base among older generations, but this a naturally shrinking client demographic and not sustainable.

**Lesson 3:** The funds industry must recognise that demographics and buying patterns/trends will change. Young people want services delivered in real-time through online mediums. The investor base is getting younger as more millennials start saving. Making investing a simple, streamlined, online process is critical if fund managers are to successfully win mandates from younger people.
The industries that have successfully navigated huge disruption in the last 15 years are the ones that recognised change was coming, and evolved with it. As an example, the music industry and (some) high-street retailers recognised buying trends were changing among consumers. Music streaming sites pulverised CD sales while shoppers preferred to make purchases online from the comfort of their living room at the expense of high street shops. The sectors that broadly flourished or retained market share have adapted by allowing consumers to purchase their products online or through apps, and most importantly in the way that each consumer segment wanted to transact.

Technology is going to change the funds industry. It is critical that market participants are receptive to technological trends, and understand the implications that technology will have on their business and strategy. Those organisations that adopt this mantra are most likely to remain relevant. This will require firms to look towards promoting or hiring technologists to ensure their strategies are progressive and forward-thinking.

A study commissioned by Calastone found that financial services institutions (listed on the FTSE 100) are starting to make structural changes to their leadership teams and boards by elevating more technologists to senior levels. See figures 1 to 3 (by number of technologists).

**Fig. 3: Number of technologists by sector**

The Calastone study found that banks and financial services sectors fared well in terms of the number of technologists in senior management positions, but scored badly for technologists working in leadership roles relative to some other industries. Sectors such as travel and leisure, and life insurance – for example – scored higher in terms of technologist representation in leadership roles.

These sectors have been at the forefront of developing disruptive technology. The emergence of price comparison and booking websites and apps, enabling customers to compare and choose the cheapest options, have proliferated over the last decade. It is this sort of innovation - delivering the simplicity and value demanded by the end consumer - that needs to be embraced by the funds industry.

In terms of geography, the presence of technologists on UK boards is slightly lower in comparison to financial services in different parts of the world. For example, 29% of financial services companies on the Fortune 500 list have a qualified technology executive (QTE) on their board of directors, according to analysis by Russell Reynolds, an executive search firm.¹

The Russell Reynolds paper added that technology-heavy boards have increasingly appointed digital directors; established technology advisory boards; set up technology committees and augmented the risk/audit committees with at least one QTE. All of these strategic decisions can help firms navigate technological disruption across multiple business streams.

An Accenture paper – “Bridging the Technology Gap in Financial Services Boardrooms” provides a geographical breakdown of the varying levels of technologists in senior roles in financial services. The Accenture report

¹ Russell Reynolds defines a QTE as an individual possessing a high degree of current technology-relevant domain expertise.
found six per-cent of board members and three per-cent of CEOs at the world’s largest banks had some form of technology experience. The need to increase technologists’ presence on boards is being driven by changing consumer behaviour; opportunities (and challenges) in fin-tech; cyber-security risks; a desire to upgrade antiquated technology and regulation.

Despite this, two fifths of banks had no board member with technology expertise, and one third had a solitary board member with technology expertise, added the Accenture study.

The UK and US lead the way in terms of the percentage of technologists in the boardroom although the numbers are still low (16% in the US; 14% in the UK), according to Accenture’s data. Banks in Russia, Italy, Greece and Brazil did not have a single technologist present on any of their boards. It does appear that markets where financial services are not as central to the overall economy do lag behind in terms of the number of senior technologists.

Improvements – certainly in the UK – are being made. The Calastone research into FTSE 100 financial companies (figure 5) identified the emergence of Chief Data Officers, now accounting for a small proportion of overall technology roles on boards. Given the recognised importance of data, it is likely that we will see a growth in such senior specialist data roles.

The embrace of digital directors and the hiring of technologists to multiple parts of the business is increasingly a trait at large institutions working in the funds industry. Some banks and large fund houses are developing incubation arms or tech hubs. These tend to develop proprietary technology innovations in-house or work with/provide financial support to external disruptors to solve common problems.

**How can the funds industry react to technological change?**

The successful fund managers of the future will be the ones with forward thinking CEOs, who recognise that change is happening in the technology landscape. These CEOs will have the support of boards who possess technology backgrounds.

> “Banks – particularly in their retail units – do deploy technology intelligently. Investment banks like Goldman Sachs are also making major changes and increasing their technology spend. Asset managers are more varied. A handful of major asset managers will engage in significant technology investment in-house, whereas the small to mid-sized (SME) firms will typically outsource. SME asset managers simply do not have the resources to retain the cost of internal technology hires and systems. There does appear to be a technology skills shortage among asset managers and the industry as a whole when it comes to more nascent technologies.”

said Virginie O’Shea, research director at Aite Group.
One senior executive at a leading institutional money manager agreed.

“The large asset managers will have whole departments or multiple departments dedicated to technology or technological innovation and fin-tech incubation. Furthermore, many of these large asset managers will have technologists embedded across numerous business lines. Senior executives and maybe board directors at these major outfits will have technology backgrounds. The opposite is true at SME asset managers. I have yet to see a small asset manager with a board director who is a technology specialist. At present, most board directors are drawn from custodians, administrators, law firms or perhaps individuals with portfolio management or risk management expertise but no technologists. These small fund managers also do not have the budgets to implement huge technology spends.”

The funds industry more broadly needs to recognise that cultural and technological change is in train, and their organisations need to identify how they can meet these challenges. One way is to identify where they have limited expertise or skills, particularly in areas related to technology. The funds industry is generally forward thinking, and it is important it starts addressing issues like a lack of technological enterprise or experience at the board or senior management level. Solving this issue will bring about diversity of experience, which can enable firms to more easily solve challenges, but also realise opportunities. This will help them navigate the technological changes that will impact their industry and the evolving distribution trends.

Some leading firms are bolstering their technology hires. Bridgewater, the world’s biggest hedge fund, appointed a computer scientist as co-CEO. Computer engineers, technologists and ex-Silicon Valley computer scientists are in demand in the funds industry, and many sizeable players are making these appointments.

“When competition was lower and regulation easier to deal with, the role of the Chief Technology Officer (CTO) was often perceived as mere IT support, which might still be the case for some companies right now. However, in order to be part of the new game, firms need to think about how to integrate technology into their core business and process, and we shall – and would like to – see CTOs play an ever larger role in business and innovation. This is both a challenge for the boards, and the CTOs themselves.”

said Alexandre Rochegude, partner at KPMG Luxembourg.
A new unanticipated challenge has emerged unique to the financial community. Driven by the financial crisis of 2008, regulation was brought in to align employee remuneration with enhanced risk management. The Capital Requirements Directive IV (CRD IV) imposes remuneration restrictions on bank employees deemed to be material risk takers earning more than 500,000 euros per year. Originally conceived as being applicable to the riskier investment banking businesses, this is starting to impact remuneration of senior and specialist IT staff. BBVA, the Spanish bank, has written to regulators urging a rethink and an exemption for technologists from this rule. Fund managers themselves are constrained in terms of remuneration limits through UCITS V and the Alternative Investment Fund Managers Directive (AIFMD).

Proactive and thoughtful engagement by the funds industry with regulators is also essential. Having competent technologists at organisations leading these conversations is important. Regulators globally are looking at how technology is changing financial services. The UK’s Financial Conduct Authority (FCA) has been reviewing robo-advisers and innovation in blockchain. The FCA has also urged managers to consult them if there are any regulatory barriers impeding technological innovation. EU policymakers, as part of the Capital Markets Union (CMU), are exploring online platforms and how they can better regulate them. Having qualified people at fund managers, distributors, platforms and TAs engaging with regulators on technology matters is key.

**Distribution: Trends to look out for**

**Robo-advice and online platforms**

The traditional route of buying a fund typically entails prospective retail investors visiting a bank or wealth advisor, who would recommend a list of products based on the clients’ risk profile, size of disposable income and financial literacy/competence.

Restrictions on commissions under the Markets in Financial Instruments Directive II (MiFID II) and the UK Retail Distribution Review (RDR) mean that prospective investors must now pay for advice, and this has discouraged some retail clients from seeking investment advice altogether.

A consequence of the decline in easily available investment advice has been the growth of online platforms or robo-advice. This is online investment advice powered by computers or algorithms. An investor can outline their risk profile, net-worth or preferred strategies online or via a mobile application, and the robo-advisor will produce a menu of potential funds based on the investors’ various criteria.

Robo-advice has been used by a handful of US wealth advisors for some time. Nonetheless, it is becoming more widely accepted across the funds and wealth management industry. Large asset managers are known to be developing their own robo-advisory units. Meanwhile, some SME asset managers and wealth managers are looking at robo-advice, but as an outsourced and commoditised technology platform that is shared by market participants.
This is driven by changing investor demographics as millennials are starting to invest for the first time, and many are increasingly attracted to robo-advice.

“The funds industry needs) to learn from the clients and new generation for the simple reason that they are the ones who will be the future customers. It is good to keep in mind that the new generation was born with digital and technology in their genes. For them, this is not called a transition – it is how it is. Look at the other industries who already faced such challenges such as music.”

said Rochegude.

Fig 6. Legg Mason Study:
% of Millennials who trust robo-advice by geographic region

Fig 7. Legg Mason Study: % of wealthy investors aged 40-75

However, institutional and older clients appear less convinced by robo-advice than younger people, who are increasingly drawn to this technology. Private banking clients, for example, will typically want financial advice with a human overlay. That being said, demographics are changing and firms need to recognise that. In Asia-Pacific (APAC), there are a higher proportion of millionaires who are also millennials. Robo-advice is increasingly being beta tested on this investor demographic in APAC.
Having accessible investment advice through apps and mobile technology is critical to winning over younger audiences, most of whom will already routinely use mobile technology for payments (Apple Pay or Google Wallet) or bank transfers and digital wallets, for example. Investing ought to be no different.

An individual could simply invest through their digital wallet into a preferred fund strategy. On the manager side, a digital wallet would need to allow for simplified know-your-client (KYC) and anti-money laundering (AML) checks. However, it is highly likely that robo-advice and other online platforms will face heightened regulation in the next few years.

Case Study: China and Online Platforms

Asset management in China has ballooned over the last few years, driven in part by the increasing prevalence of online fund sales platforms. Z-Ben Advisors, a China-focused consultancy, believes more than half of fund sales in China are done online. That figure stood at a paltry 5% in 2012. The overwhelming majority of these online fund sales—according to Z-Ben Advisors—are money market mutual funds, as opposed to equities or fixed income. A number of active managers in the equity and fixed income space are looking to boost their online fund sales presence and get on a par with money market mutual funds.

Perhaps the best known example of an asset manager that has enjoyed enormous growth through an online medium is Yu’e Bao, which is available through Alipay, the online payment platform provided by Alibaba. Other money market funds are taking note and seeking distribution channels through online platforms such as WeChat, a free instant messaging and calling service (similar to Whatsapp but with more embedded features) with approximately 400 million users in China. Attaining distribution through a medium with such a sizeable reach is an effective way to raising meaningful assets.

It is important to note that many Chinese investors have a different cultural approach to funds than elsewhere in the world insofar as they do not view funds as investments or savings but rather as cash accounts. These allocators simply do not want to put cash into bank accounts where they may not generate much—if any—interest. However, it also means that investments into funds by Chinese allocators are short-term—usually two to three weeks at a stretch—meaning reliable income streams for fund managers are less assured.

The case study of China raises an interesting question as to whether US or European fund managers will pursue a similar path and collaborate with technology providers. Interestingly, a number of asset managers view technological disruption not as a capital raising opportunity but rather a threat to their livelihoods.
Uber or Apple Asset Management?

A State Street study, “Opportunities for Optimism: A New Vision for Value in Asset Management”, said 79% of asset management executives believed they would face competition from a non-traditional market entrant. Technology providers include Google, Apple and Alibaba topped the list as the biggest threats to fund managers’ businesses, added the State Street research. Some would argue concerns about disruption by technology companies are misplaced.

Google conducted research in 2014 on launching an asset management arm, although there has been notable silence since. Google does actually have a successful venture capital business which has invested in a number of technology leaders including Uber, the taxi-sharing application and various robotic companies. A full foray into active asset management by any technology giant does not seem imminent though.

While Google and other technology giants like Facebook are sitting on large cash piles, entering asset management would have associated (and maybe unacceptable) costs and result in them being subject to prudential regulation. This is a problem that has been faced by many challenger banks, that have emerged in the UK, which have struggled to attain scale and are constrained by regulatory costs.

In fact, the most likely scenario would be for these technology giants to leverage their user-base and develop fund distribution franchises. Facebook has over 1.7 billion users globally while Uber has surpassed one billion rides. This gives these platforms unrivalled distribution globally, and fund managers may look towards entering distribution partnerships with these technology players.

Many of these technology companies possess enormous volumes of data on their users, including popular searches; photographs; buying patterns; and this could be utilised by these organisations to identify peoples’ risk profiles, and a fund distribution platform could be created off the back of that.

For example, if an individual posts opulent holiday pictures on Facebook; or regularly checks-in to high-end restaurants or bars; takes Uber Lux rides frequently; or purchases expensive products through Amazon; it could be assumed that user may have an above-average disposable income, and could be sold a wider range of fund products, or more complex products. However, these technology firms would need to ensure they complied with MiFID II requirements on product suitability and rules around data privacy/protection if they choose to go down this avenue.

Nonetheless, there is a degree of scepticism that a major player like Google will infringe on asset managers’ pedigree. Some market participants believe the threat will not come from a mainstream giant like Apple or Google but a new technology focused firm. However, asset managers and other segments of the funds industry may simply acquire these disruptors. This has already happened with hedge funds purchasing peer-2-peer (P2P) lenders and crowdfunding platforms.

Source: http://www.statestreet.com/content/dam/statestreet/documents/Articles/Opportunities_for_Optimism_ExecutiveSummary.pdf
Blockchain

Any paper authored today regarding technology cannot ignore making reference to blockchain. Blockchain is a database, which is immutable. It is operated and (theoretically) safeguarded through sophisticated cryptography underpinned by complex algorithms and mathematical formulae. Its applications are potentially diverse and not just confined to financial services.

Its impact on fund management could be significant precipitating the creation of an Investment Book of Record (IBOR); improved straight-through-processing (STP) and much simplified reporting. In theory, investor subscriptions and redemptions could be recorded on a blockchain rather than at the TA.

However, this technology is some years away, with unresolved issues around standardisation (or lack of); cyber-security (or perceived lack of); scalability (or perceived lack of); and its ability to operate in coalition with legacy systems still unanswered. These are not insignificant issues and will require cooperation and collaboration among market participants, industry forums and regulators.

In terms of distribution, blockchain could simplify KYC and AML checks that fund managers have to comply with. At present, KYC and AML is manual although efforts have been made to create centralised repositories containing all of this client data. However, most fund managers will need to ask their clients or would-be clients for the relevant data before they can be properly on-boarded. If client data was available on a blockchain and routinely updated, this paper trail would become redundant, and KYC/AML checks would be simplified. This would make on-boarding straightforward, and certainly less invasive for the client.

Asset managers tend to distrust blockchain. This scepticism has not been abetted by Bitcoin and smart contract hacks on various blockchains, although there seems to be a misunderstanding among financial services that the blockchains themselves were hacked when they were not.

Asset manager knowledge and understanding of blockchain is low, and I suspect some might not even know what blockchain is, as its development has been led by the market infrastructures, investment banks, and, to some extent, large custodians. I cannot really see blockchain taking off in terms of KYC or AML yet as the technology is very young. A number of centralised data utilities are already being created to enable streamlined KYC and AML, and blockchain does have challenges around its costings, scalability and regulatory buy-in or acceptance. That being said, the immutable nature of blockchain and its clear audit trail would simplify due diligence around KYC and AML.”

said O’Shea of Aite Group.

Fig. 8: Attitudes towards blockchain

- 57% of asset managers and asset owners expect blockchain to be adopted in investment management in next five years.
- 42% of asset managers who think blockchain will achieve scale.
- 55% of asset managers and asset owners think blockchain will be used privately.
- 7% of asset managers and asset owners are developing blockchain initiatives.
- 90% of asset managers and asset owners said blockchain security is their biggest concern.
- 13% of asset managers and asset owners think blockchain will be used publicly.

Source: State Street and Oxford Economics research.
Key concluding points for the funds industry

■ Disruptive technology will play a role in fund management, particularly distribution. Monitor these evolutions and adopt the technology sensibly.

■ Giving investors choice and flexibility around their investments/investing has never been more important for the funds industry. Demographics are changing and the funds industry needs to adapt to younger people’s buying preferences and habits.

■ For the funds industry to succeed, it needs to understand technology, and how it can be used to innovate or disrupt traditional processes as opposed to simply modernising existing processes.

■ It is also critical to bring about cultural change among the senior echelon and make sure technology issues are firmly part of the long-term strategic agenda. This can be abetted by hiring more technologists and ensuring technologists are appointed to senior roles and board positions within the funds industry.
About Calastone

Calastone is a financial technology company. Our mission is to make markets friction-free by connecting trading partners through our global fund transaction network. More than 1,000 customers in 29 countries and territories are now processing domestic and cross border transactions via Calastone, benefitting from the cost and risk reduction opportunities transaction automation can offer.

Our purpose is to use smart technology solutions and industry collaboration to enable global distribution, reduce operational risk and enhance client profitability.

Calastone is ranked in The Sunday Times Hiscox Tech Track 100 and is one of the UK Government Tech City’s Future Fifty companies, recognised for high growth and transforming industries. Calastone has offices in London, Luxembourg, Hong Kong and Sydney.

In order to represent the best interests of the industry, Calastone is actively involved with the following organisations; TISA (Tax Incentives Savings Association), TEX (TISA Exchange), WMABBA, NICSA, ALFI, SMPG, FPG, FSC, AMPS, HKIFA, IMAS and ACSA.

For further information please visit: www.calastone.com or email marketing@calastone.com