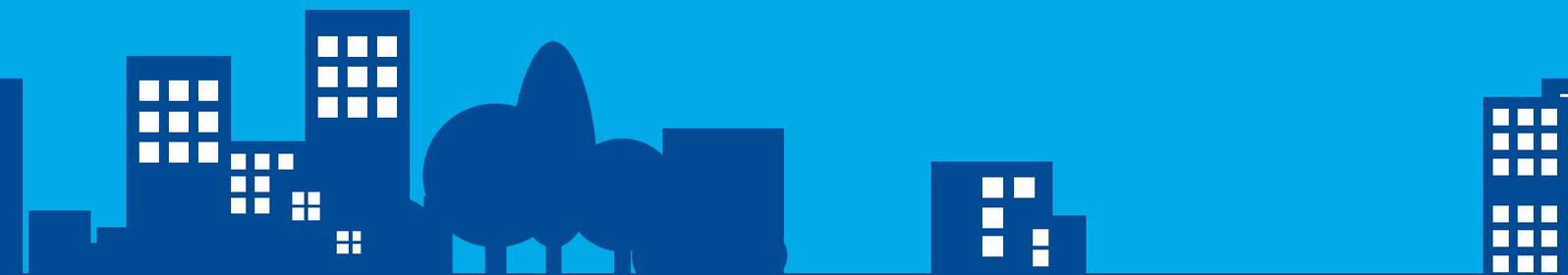


Innovating to stay ahead



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The pace of technological innovation has never been greater in the banking industry. Both challenger banks and disaggregated product specialists are eroding the dominance of established banking institutions, and the battleground is the fertile field of new financial technology.

Introduction

Not a month goes by without predictions of the end of banking as we know it.

Innovation is rapidly altering the financial services landscape, whether driven by large incumbent banks, outright challenger banks, agile financial technology (fintech) firms, or even non-financial technology giants (think Apple Pay, Google Wallet).

Are innovative new entrants capturing market share at the cost of incumbents? Jargon is everywhere—'biometrics,' 'wearables,' 'gamification'—but what do these words even mean? And what are their impacts?

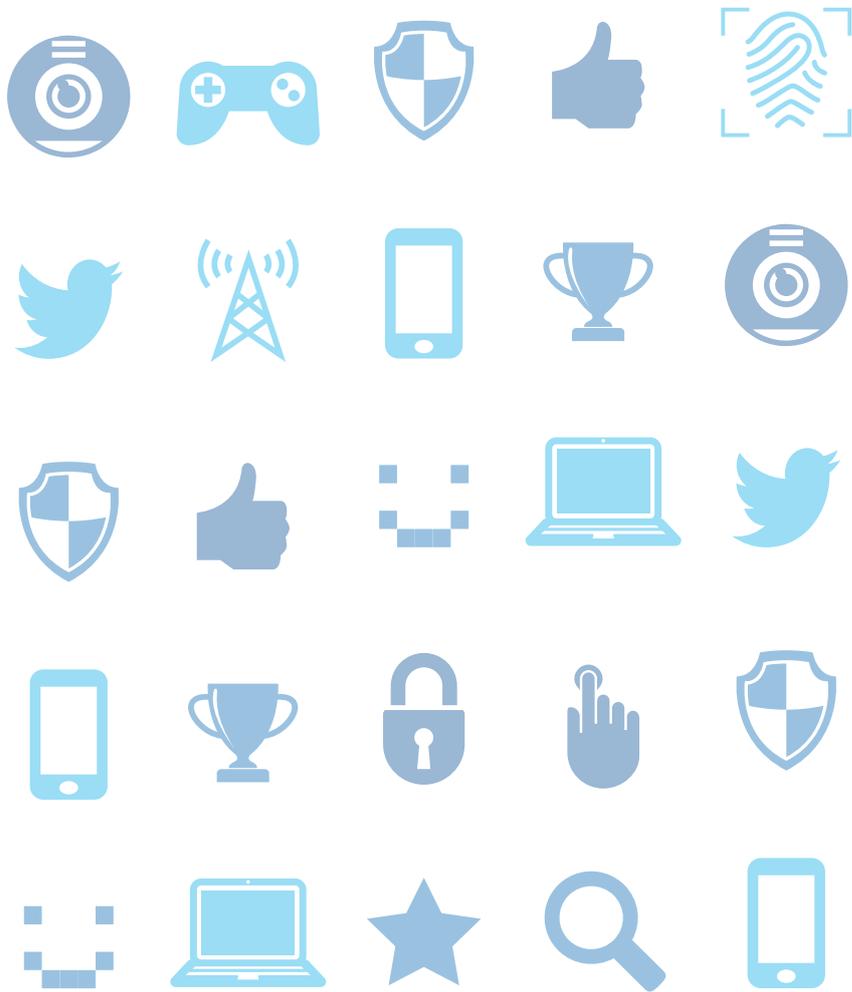
During this period of rapid change, established incumbent banks have a dual challenge: first, that of responding to 'point' areas of innovation—

developing new payment channels for example—and secondly, putting in place a bank-wide framework to harness innovation, whether by setting up in-house innovation offices, incubating, or partnering with fintech start-ups.

This article focuses on the first challenge—identifying the current banking innovation trends—rather than on how banks are responding to innovation.

Although subjective by nature, this list draws on a database of more than 550 banking innovation case studies, catalogued since 2011. These trends do not aim to capture what has passed, nor is this crystal gazing. We see these developments as being at the brink of mainstream adoption, and they are valuable focus areas over the next twelve to eighteen months.





01

Fingerprint identification and verification (ID&V) is enabling the next generation of biometrics in banking



The fingerprint scanner in Apple's iPhone 5S and later models has encouraged consumer adoption of biometric identification, with banks from across the globe enabling fingerprint technology for logging into mobile apps. RBS and NatWest in the United Kingdom (UK) have been early adopters of this iPhone facility for their banking apps.¹

Now we are seeing the next wave of biometrics in banking. Barclays (UK) has announced plans to partner with Hitachi (Japan) and develop finger-vein biometric ID (mapping the subcutaneous veins, instead of surface-level fingerprints).² Hitachi first patented the technology in 2005, but it is being refined for use in tandem with mobile phones.

Meanwhile, Halifax (UK) is trialling technology that can authenticate user identities by analyzing their unique heartbeat rhythm, and Alibaba (China) has announced a pay-by-smile function, essentially using a 'selfie' to authenticate a payment.^{3,4}

Why this matters: Cybersecurity concerns continue to inhibit digital adoption (particularly among older customer segments). Biometrics are by their nature difficult to replicate, faster to process than personal identification codes, and thus provide at once greater security and customer service enhancements.

02 03

Financial services and social media are converging



As more technology start-ups list publicly, they face increasing pressure to generate revenue, particularly when they are free to use for the consumer. In response, many are turning to payments and the wider finance market.

Social media sites such as Facebook and Twitter have been some of the quickest to find ways to capitalize on the possibilities presented by integrating payment functions into their existing platforms.^{5 6}

Barclays has teamed with Twitter to develop payments using just a Twitter handle—no bank details needed—via its Pingit app. Similarly, in Singapore, Facebook have teamed with Fastacash for quick online money transfers.⁷

Facebook is also thought to be planning its own internal money transfer system using the Messenger function, although full details are yet to be released.

Meanwhile eToro (Spain) have combined social media with trading by creating a social network allowing users to follow fellow traders and trade currencies, commodities, and stocks.⁸

Mainstream institutions are also developing their use of social media with Nationwide (UK) by offering direct customer service functionalities via its Twitter account.

Why this matters: At the very least, social media is a new banking channel. However, if the logic of facilitating payments was extended more broadly, cash-rich social media companies could possibly facilitate charitable giving, crowdfunding, cash management, and potentially even build up a view of creditworthiness and lending. Social media could be the next dis-intermediary in financial services.

Wearable banking technology is becoming mainstream



The launch of the Apple Watch has galvanized the development of wearable banking apps with Mysis already announcing the development of a number of in-app features.⁹ Competitor activity is also heating up. Analytics-based personal financial management (PFM) provider Moven (US) is introducing an app with Android, and the traditional watchmaker Swatch (Switzerland) has signalled its entry into mobile payments.^{10 11}

Although the Apple Watch has received the most publicity over the last few months with its release in April 2015, rivals will be watching closely to learn lessons and improve or adapt their own products.

In terms of banking, the possibilities are significant, with not only wearable NFC (near field communication) payments becoming a reality but also more complex banking services such as money transfers, geo-locational alerts, and potentially even videoconferencing with a bank advisor.

This builds on the recent wearable technology trend. La Caixa (Spain) has released payment wristbands to its full customer base, and a tailored suit from Heritage Bank (Australia) offers in-built payment functionality in the jacket cuff.^{12 13}

Why this matters: In essence, wearables do not matter yet. However, the greater the uptake of wearable technology, the greater incentive there will be for banks to invest heavily in the software and apps to match the latest hardware innovations.

0405

The 'gamification' of financial services has begun and looks set to increase



Gamification—the use of the mechanics of (largely video) games in non-game situations—has been a buzzword in Silicon Valley for a few years now, but it has been surprisingly slow to find its way out of the world of life coaches and TED (Technology, Entertainment, Design) talks and into the world of finance. Nonetheless, there are some early innovators emerging with successful offerings.

Bulgaria's DSK Bank has launched a mobile savings application called DSK Gameo, using financial goals and rewards to encourage customers to save.¹⁴ It also allows the bank to better understand its user base.

The virtual trading app BUX (Netherlands) allows those who download the app to practice in a virtual environment with real-time stock prices—earning badges, playing one-on-one battles against friends—before graduating to investing real money.¹⁵

Why this matters: Gamification can be used in several ways, from enhancing customer experience to testing new products and delivering internal training (particularly in areas such as conduct risk). It is now up to banks to use these techniques to get customers and colleagues to see the fun in finance.

Banks are increasingly using digital technology to drive financial inclusion



While mobile wallets and digital app-based payments have been keenly noted and replicated in the developed world, digital mobile financial services have had a significant impact in the developing world.

The impact of M-Pesa ('M' for mobile and 'pesa' is Swahili for money) on financial inclusion in sub-Saharan Africa has been documented extensively.¹⁶

However, the impact of this drive for inclusion is now being felt most strongly in India, where, since August 2014, an estimated 100 million new accounts have been opened, linked to the government's unique identification system, Aadhar.¹⁷ This mechanism allows for direct financial transfers to household accounts in lieu of subsidies and welfare programs for the poor.

MasterCard has partnered with the Egyptian government to create digitized national ID cards onto which salaries can be loaded and then used to pay for products, making use of Egypt's high mobile phone penetration to drive financial inclusion.¹⁸

Why this matters: Enabling financial inclusion is not just a PR success story. Expanding financial access has direct bottom-line benefits for mainstream banks. Using innovative ways to reach out to customers—the use of Barclays Digital Eagles to drive financial education, for example—helps reintegrate banking into mainstream public consciousness and repair a relationship that has been impacted by the global financial crisis.¹⁹

Conclusion

Banking innovation is heating up

The pace of innovation in banking is increasing with new tools, products, and business models emerging every month.

At a macro-level, it is hard to say whether banking will be disrupted in the same way as other industries, particularly given how much more stringent banking regulation is.

Far from fundamentally reordering the industry, we see innovation creating a new ecosystem for financial services. This ecosystem consists of established and new players competing and cooperating across different parts of the banking value chain.

For example, social media players might compete with banks to facilitate high-volume, low-value cash payments while cooperating with banks to provide a broader range of data points in determining creditworthiness.

As the new normal for banking continues to evolve, one thing is for certain: doing nothing is not an option.

Footnotes:

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