Hampered by increasingly complex regulations, as well as the cost and inertia of inefficient legacy systems, banks are facing growing competition from innovative non-bank organisations. Unless they start to confront the mission-critical importance of transforming their technology, they could face death by a thousand cuts, argues David Rowe.

When Kohlberg Kravis Roberts bought RJR Nabisco in 1988, it inspired the book – later a movie – Barbarians at the Gates. The episode helped create the myth that financiers were the masters of the universe and became the stuff of nightmares for successive generations of corporate chief executives.

Today, there has been something of a role reversal. Most institutional financiers are mired in new regulations. More seriously, they are also struggling to find a path through a maze of legacy information systems unsuited to meeting either these regulatory demands or multiple emerging competitive threats to their profitability.

Against this backdrop, real engineers – rather than financial engineers – are suddenly the predators rather than the prey. Experts in technology, process and operations are stealthily plotting a thousand coups, small and large. We have gone from Barbarians at the Gates to Geeks at the Gates.

Some may have dismissed my claim last month that a major architectural overhaul of bank systems is an urgent necessity. If so, they should give careful consideration to the annual review of international banking in the May 9 issue of The Economist. It is devoted almost entirely to the threat presented by FinTech, an area where venture capital investments have tripled to $12 billion in the past year.

The challenge has not come primarily in the form of de novo full-service banks. This is what Silicon Valley types call a “full-stack financial services start-up”. These interlopers are accustomed to thinking in terms of the individual components of a technology stack. They tend to seek disruptive innovations in selected areas that improve performance for one component of the stack, while fitting comfortably into the larger technology ecosystem as a whole. This mindset is directly reflected in the way FinTech is mounting its competitive challenge.

Domestic payment systems were the first area of attack with the founding of PayPal in the late 1990s. This first thrust was aimed at disrupting online payments at a time when many people hesitated to transmit credit card details over the internet. More recently, Apple Pay is extending the attack to the retail point-of-sale payment process.

Peer-to-peer lending has evolved into what practitioners prefer to call market-place lending. It has moved beyond direct intermediation of savers and borrowers, instead attracting participation from hedge funds and other institutional investors. While still small, market-place lenders are growing rapidly. If this growth continues, they may well become a direct threat to banks’ traditional role as the primary source of financing for individuals and small businesses once thought too small to tap public debt markets. If nothing else, they will create pressure on banks’ profit margins on this activity.

In the lucrative business of retail foreign exchange transfers, innovators such as TransferWise.com are cutting fees by 80-90% while still making money.

Mark Andreessen, whose venture capital firm Andreessen Horowitz recently invested $58 million in TransferWise.com, has been widely quoted as saying, “We can reinvent the entire thing ... We have a chance to rebuild the system ... You would not today, starting from scratch, invent any of these financial businesses in the same way. To me, it’s all about unbundling the banks.”

Bankers may think this is just Silicon Valley hype, but they ignore the challenge at their peril. The traditionally protected and profitable activities of banks will face growing competition from non-banks, powered by improving technology and shifting attitudes among the Millennial Generation.

Banks that fail to extract themselves from the burden and cost of their legacy technology will see more and more of their profitable business lines come under attack. Today it is no longer the Barbarians at the Gates that have all the leverage. The Geeks at the Gates are mounting a powerful challenge that will not go away.

It seems hardly coincidental that this issue also contained a special section entitled Rise of the Machines, which chronicles the potential value and possible dangers of advances in artificial intelligence, fuelled by a continuing surge in available computing power.

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