

How to leapfrog technology adoption cycles and gain rapid competitive edge

Technology adoption cycles are accelerating. This poses immense challenges and opportunities to enterprises, especially in regions such as Latin America. As many companies in the region don't have significant legacy environments, they are directly moving to adopting the most advanced technology. Consumers are playing a major role in driving this change, as they rapidly adopt new technologies, particularly mobile tech, and demonstrate their willingness to try new products and services. Enterprises are faced with a fertile land if they can harness the era of digital transformation.

In this whitepaper, we examine the idea of leapfrogging, and how enterprises can take advantage of the opportunities presented by the fundamental business, societal, and technological shifts that are currently underway.

Understanding the idea of leapfrogging - and the opportunity it presents

In wealthier parts of the world, over the past 30 years, enterprises have gradually enhanced and modernised their technology environments. There have been smooth and steady improvements in technology cycles. However in other regions of the world, which are less developed than, for example, the US or Europe, these technology adoption cycles have not occurred in the same manner.

Given the gap that has emerged between regions, technologists have adopted “**leapfrog models**” which describe how in recent years, consumers and startup entrepreneurs in the developing world have rapidly moved beyond infrastructure and technological adoption constraints. For example, thanks to the low cost of cell phones and rapidly expanding wireless access in cities and rural areas,

countries have been able to skip the fixed-line technology that was a core part of the Internet revolution in other parts of world. In other words, countries are now able to move beyond hard infrastructure constraints. Such leapfrogging has notched [notable successes in Africa and India](#).

Here at Belatrix, we believe that overcoming technological and infrastructure constraints, and moving directly to mobile, represents a new spring with respect to providing enterprises the platform to offer new services. The rapid consumer adoption of these services and products built on mobile platforms are the flowers that bloom. It's a time of tremendous opportunity for enterprises.

Latin America leapfrogs to become a hotbed of digital innovation

Latin America is prime ground for disruption and presents opportunities for organizations willing to invest in new technologies. This is due to two powerful and combined factors:

- **Incredible smartphone adoption combined with high mobile penetration rates.** Individuals are rapidly adopting mobile technologies - mobile penetration is likely to reach [71% in a couple of years](#). Smartphones now account for [60% of the 690 million connections](#) on mobile networks. 70% of people in the region have access to a 4G network.
- **The region is full of early adopters.** A high percentage of consumers in the region are early adopters- with limited brand loyalty to existing products and services. In 2015, the global polling firm Nielsen found that [several Latin American countries had the highest percentage of early adopters of new products](#).

What this means is simple: the region is full of individuals adopting mobile technology and willing to try innovative new products. This is one reason why venture capital investments in Latin America [surpassed US\\$1 billion for the first time in 2017](#), doubling the amount committed to startups in 2016.

The potential of leapfrogging extends to all industries

Leapfrogging promises not just gains within technology intensive sectors - but extends across industries, from manufacturing, energy, healthcare, to education. However, realizing widespread deployments across industries, relies upon the development of software solutions that fit with leapfrog technologies, especially mobile apps.

In an [article for the World Economic Forum](#), AT Kearney partners, Mauricio Zuazua and Otto Schulz, highlight the potential for startups and emerging companies to overtake established competition. They highlight how, in a landscape which is shifting rapidly, technological advances open new opportunities. Companies, and indeed economies, don't have to follow the exact same path as established competitors. In other words, new digital technologies, from artificial intelligence

to wearables, provides the means to leapfrog your competition into a leadership position.

To help illustrate the potential of digital technology in the finance sector, we'll now examine how fintech startups are leapfrogging established financial service providers in Latin America, to become leaders in the sector.

Fintech startups take advantage of the potential of leapfrogging - while helping to improve people's lives

Across Latin America the banking sector is under acute pressure. Entrenched and globally uncompetitive banks have long controlled financial services in the continent. However, their services have failed to meet the needs of large swathes of the population. The region is, still today, heavily “unbanked” (individuals who do not use any bank service) and “under-banked” (people may have a bank account for instance, but do not use credit services). In addition, many of these traditional banks remain at the initial stages of technological maturity, and have not yet been able to take advantage of the potential of new digital technologies.

As a result, recently we have seen numerous fintechs spreading into these markets, using digital technology to tap into large pools of consumers. For many of these consumers, mobile banking represents a critical way to access core financial services. As a result, they require “mobile-first” banking services, providing easy to use services from their cell phone - not a poorly designed website which many banks offer.

It's important to mention that the benefit of these new services is not just for the bank to reach new consumers and businesses. By providing services to the unbanked, financial service providers are improving financial inclusion, and bringing people into the financial system. This can help improve the quality of life of individuals (such as providing ways for people to save money), reduce extreme poverty, and positively impact the economy.

But what should financial service providers take into consideration when building new apps and services? Now, we provide examples of the work Belatrix has conducted together with leading financial organizations in Latin America.

How Belatrix contributes to Latin America's digital transformation

Belatrix has a record of success in devising user-friendly apps and an approach to partnership that inspires lasting organizational change. In one case, we helped a fintech differentiate its mobile payment offerings by [building an augmented reality map](#). This allows customers to easily find the closest ATM based on markers identified by their mobile phones.

Beyond this feature, we improved the overall functionality of the mobile payment platform with PCI compliant services, and also performed code refactoring services to implement best practices. First and foremost, the performance enhancement, with this new functionality, enhanced the customer experience.

This was critical, as it helped differentiate the product in the app market.

Yet, startups are not the only ones innovating in Latin America. And not all banking incumbents are averse to change. In one partnership, [we worked with a traditional bank in one of Latin America's largest markets to help modernize the bank's services](#). The starting point was an honest appraisal. The bank knew its position, and was realistic about the threat posed by fintechs if it did not offer a solution that pleased its customers. From there, Belatrix was able to devise a set of apps that vastly enhanced the bank's position, opening up a much wider customer base. This set of apps included:

- **A user-friendly app to allow people to make small money transfers.**

The app was originally geared toward the market's large segment of young people, especially millennials who might just know the phone number of the recipient, not the recipient's bank account information. The software development team tested the app at a local university. During this testing, another user group was identified: parents and older family members, the folks who are likely to want to send money to their college-age kin. Given this, the developer team decided to broaden the target group, leading them to modify the app.

- **An instant loan application.** The developer team designed the app to help users rapidly and easily apply for a bank loan. The app's functionality allows for users to select a desired repayment schedule, agree to the loan terms, and select which of their bank accounts they want the loan proceeds deposited into. In crafting this, the app dramatically reduced the time and effort required for users to apply for and receive a loan.

- **App to open a bank account instantly.** Instead of physically requiring customers go to a bank in order to open an account, our developer team devised an app to enable customers to open an account in the blink of an eye. The key to doing this was having the app draw on biometrics, as well as using information from government databases.

In creating these apps, we demonstrated the importance of understanding the broader changes and dynamics which are occurring in Latin America resulting from Latin America.

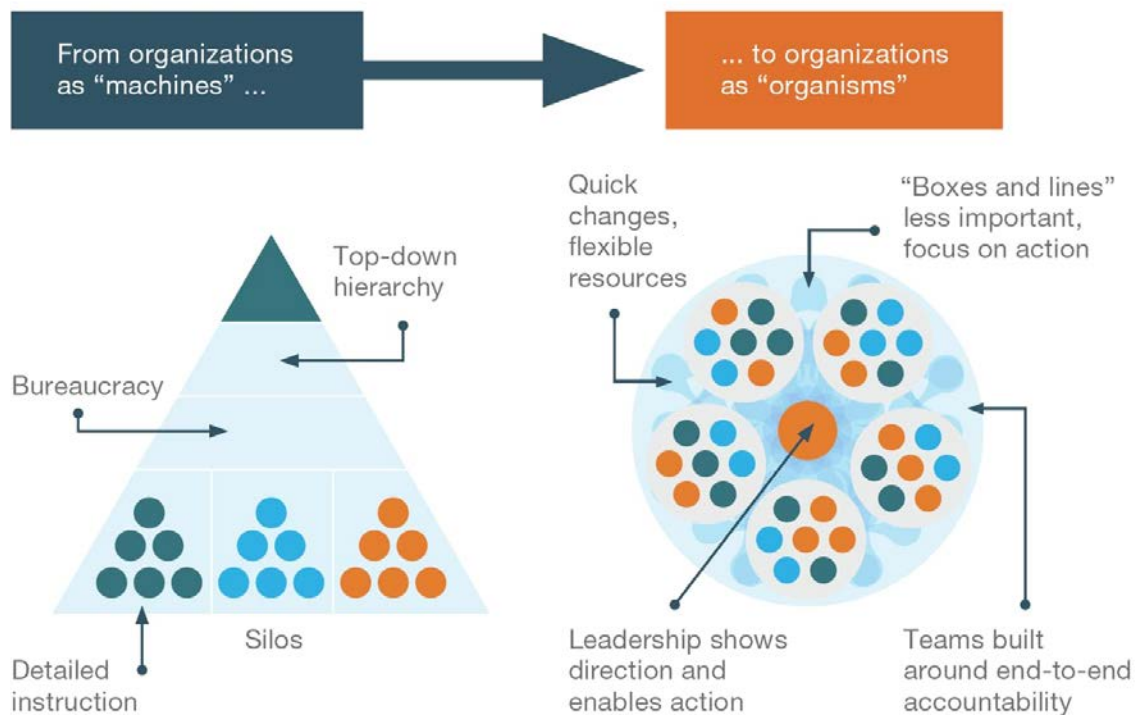
Getting ready to leap - and using the power of Agile development

So how does an organization position itself to leap infrastructure bottlenecks and the gaps between technology adoption cycles? Agile development is a sound starting point. We believe that Agile is no longer just a software methodology - but rather provides the framework for an organization's digital transformation. Agile makes teams more versatile and it marshals the full talent of each team member into a fluid whole. The benefits of internalizing Agile methodologies open up enterprise teams to ideation and can help diagnose and remedy

problems more quickly. Agile organizations have a 70% chance of being in the top quartile of firms in their sectors, [according to research by McKinsey](#). This brings in tow a clutch of other benefits, including greater customer focus, faster time-to-market, maximized revenue growth, and a more engaged workforce.

Implementing Agile development in an organization is not without its challenges however. It changes how teams work together and leads to a different company culture than what many businesses are used to. We recommend reviewing our [specific report on how to implement Agile development](#).

Rather than organization as machine, the agile organization is a living organism



Source: Wouter Aghina, Aaron de Smet, and Kirsten Weerda, "Agility: It rhymes with stability," McKinsey Quarterly, Dec. 2015.

Join the revolution! The digital transformation of Latin America is just getting started

As technology adoption cycles accelerate, it is more important than ever that enterprises provide leading solutions and explore the power of new digital technologies. The time is ripe for enterprises to invest in creating new innovative services and products to appeal to tech-savvy businesses and consumers. Moreover, there is a hue to Latin America that we have to consider: many of these new services are helping to rapidly modernize the region, helping to reduce poverty and improve social inclusion, as the continent leapfrogs into the digital future.