Global Innovators are driving digital transformation
The *gA Center for Digital Transformation* is an open forum between gA and thought leaders and practitioners from the business and academic world in Latin America, devoted to better understand how the adoption of new leading edge technologies is changing the way companies run their business.

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We appreciate the insights and review by **Jorge Forteza**, member of the Editorial Committee of the *gA CdBT*
Summary

One of the most impressive shifts in the global economy in the mid-19th century was the development of railway lines across vast tracts of land, dramatically reducing the cost of freight for farmers from their production areas deep-country to the urban sea ports, and integrating them into the global markets in a relatively short period of time. 150 years later, the emergence of digital technologies is producing a shift in the global marketplace of very similar proportions. Competitive landscapes across different industries are changing their dynamics, barriers to entry are lowering or disappearing, new entrepreneurial entrants are barging into markets dominated by the few and large.

As an example, hundreds of thousands of people from lower-income brackets in remote locations across Latin America until recently had no chance to access any form of credit for their small family business. Today, thanks to the emergence of mobile and cloud infrastructure, and the development of simple and agile credit origination apps that run on them, more than 2.5 million individuals in Mexico alone have become eligible for lines of credit for working capital needs. gA is working with Compartamos Banco\(^1\) in Mexico, a leader in the market of micro-loans, to help them develop a business platform to reach out to this highly fragmented and under-served segment of the population.

This is only one example of how emerging technologies and entrepreneurial leaders are changing the way businesses have been running for decades. Software is redefining huge industries such as Financial Services, Retail, Music & Photography, even “techy” segments like PCs and Phones, creating new ways—faster, easier, more attractive and less expensive—of doing business. The convergence of new digital technologies, what Gartner is calling the “Nexus of Forces”, is accelerating this reshaping of the industry.

\(^1\)Compartamos Banco (www.gentera.com.mx) is a financial institution in Mexico whose mission is to provide micro loans to hundreds of thousands of small or “micro” businesses. It is now extending its successful model into other countries in Latin America.
2. Digital Transformation along the value chain

Do you remember the year 2000? What went wrong? The so called e-business fiasco “dotcom crash” became a painful reflection of the failure of the industry at that time to produce a full end-to-end experience that could integrate the promise of the dotcoms of E-BUSINESS with the subsequent fulfillment of that promise, with the only exceptional stories of Amazon and eBay in eCommerce, Google and a handful of financial services and retailers that succeeded.

Some of the lessons learnt from the e-business fiascos of the early periods are still valid today and are relevant to our current work:

- E-business was seen as a gimmick, or “brochure ware” as it was called then, just developing a site that added nothing of value to the customer experience
- E-business as a new channel, with no obvious integration with the overall company’s strategy
- Little integration with the company’s core business processes, such as sales and marketing, distribution or production and logistics
- No increased intelligence on clients or ability to enhance cross-selling

So, what’s different now? The development of new software, cloud and mobile infrastructure and the massive adoption of and change in the user experience of these technologies is allowing the fulfillment of the dotcom promise. Are we going to witness a replay of the e-business failures, with only a few companies actually creating value from their digital strategies?

3. What are global innovators doing?

We have launched a global research effort to understand what different companies are doing in terms of application of digital technologies and have integrated these cases into our own view of how you create value (or waste time and effort) in the application of promising new technologies.

Global innovators such as L’Oréal, Zara and Tesco are leading the way in terms transforming their businesses to capitalize on these opportunities. In Latin America, although lagging their northern counterparts, we are seeing an acceleration in the adoption of digital technologies, as social networks expand, mobile platforms and phones get more sophisticated and cloud infrastructure becomes more prevalent.

To better understand the market potential and organizational dynamics of Digital Business Transformation, we took a closer look at various global firms² with a tradition of innovation, and evaluated how they are adapting business strategy, organizational structure and business models to embrace digital transformation.

²The gA Center for dBT researched and produced 9 case studies in July/August 2013: L’Oréal, P&G, GE, Walmart, Tesco, Zara, Pepsico, BBVA and IKEA. Research was based on company and public information.
Our research is showing evidence that digital transformation at a very few companies (these global companies) is impacting different business areas across the value chain. L’Oréal is using digital technologies to create an entirely new customer experience, increasing loyalty and acquiring new ones; Tesco is bringing the store to the customer and transforming the shopping experience altogether; Zara and Wal-Mart are using massive customer feedback on a same-day basis to react to demand trends faster than their competitors, increasing turnover and loyalty. Pepsico is using digital technologies to integrate its farmers into its value chain, increasing operational excellence and lowering costs.

In our view, the only way in which companies actually create value through digital business transformation is if they can develop a seamless strategy that impacts their business along the following five critical dimensions:

1. Customer Experience Management, creating a new intimacy in the relationship with clients on a massive scale, but at the same time creating a new dimension to sales force effectiveness.
2. Value Chain Integration: Cloud and mobile infrastructure is creating new competitive advantages across the value chain, as can be seen in the Zara case.
3. Financial Performance Management: In-memory computing combined with high-performance analytics is creating staggering improvements in the speed and availability of useful data.
4. Human Empowerment: Social business is creating collaboration and community environments within large organizations that is transforming Talent Development and Innovation.
5. Sustainability: Digital transformation is helping create a much wider sense of corporate citizenship, increasing sensitivity and responsibility. Look at the recent examples at Nestle and Whole Foods.
4. Global Innovator Case Studies:
Let us see how some of these few leaders are actually creating value with digital transformation:

L’Oréal: Make the product recognize the customer

Created in 1909 by Eugène Schueller, a visionary chemist with a tremendous entrepreneurial instinct, L’Oréal has pursued a tireless quest: to respond to the desire for well-being of millions of men and women and give every person the right to beauty by making it accessible.

L’Oréal is today the world leader in beauty products, and as of 2012 the consumer goods company has already reported more than 20 billion in consolidated sales over 600 patents, 27 international brands and presence across 130 countries worldwide. Having such a big penetration in the consumer goods market, the company has the ever going challenge of an ever changing customer base, what they need, what they want and what they think about the brands are the key questions L’Oréal needs to deal with every day.

After analyzing the way that traditional media and innovative means such as social networks, mobile devices and its interactions with the customers, the company found out a set of three very clear opportunities focused on turning into One-To-One marketing and under the motto: Making the product recognize the customer.

The biggest milestone the company registers as the major step towards the new face of the company’s digital strategy was what the company called L’Oréal’s Digital Year (2012). This period involved not only a significant financial effort into the marketing budget; it also meant cultural and organizational changes and the adoption of digital understanding through a process of maturation of the company.

The first things L’Oréal got right were: (1) Understanding of the need to integrate digital expertise to every strategic unit, product line and business within the company; and (2) the company visualized the need of human capital capabilities and competences in order to effectively mature digitally as a company.

Among the things that have driven the success at L’Oréal are:

Commitment: Having a vision is not enough, in order to become an industry leader; the company has to be committed and supportive of the changes that need to happen. In the case of L’Oreal, the introduction of digital agents in strategic areas eased the adoption and aligned the business.

In-house Expertise: L’Oreal made sure they had the necessary expertise. It formed a team of 300 people specialized in digital technologies, with the goal of providing digital expertise at every strategic point in the company.

Governance: The company appointed a global digital manager to pilot this cross-functional network that doesn’t only concern marketing but also, to research, manufacturing, communication and in the sales functions. They launched a program to train 15,000 individuals in digital fluency in two years, including the company’s managers.

Focused Efforts: When talking Research & Innovation, L’Oreal’s strategy has always been based on proximity to their consumers around the world, with more than 3,400 researchers working at 18 research centers in 12 countries. Digital technology allows them to achieve even greater, and practically entering consumers’ homes.
TESCO, Britain’s leading food retailer and the third largest in the world, opened its first store in 1929 in London and by the early 1960s Tesco had already become a familiar sight in the UK. After joining the ‘80s trend for large out-of-town supermarkets, in the 1990s the company started pioneering many new innovations. It developed new store concepts such as Tesco Metro, a city center store meeting the needs of local shoppers, and Tesco Express, the first UK petrol station convenience store.

In 1995 the company introduced its ClubCard, the UK’s first customer loyalty card, which was seen by competitors as a marketing trick, but by 1996 the company had built the largest customer database of any retailer in the UK. The database has played a crucial part in the ongoing transformation of the company. It allowed it to really understand its customers: to understand the individual’s shopping habits, demographics, geographical spread, and products bought. For the first time a retailer could target its customers as individuals, rather than purely through the media advertising, proactively contacting them to provide information on products and services most suited to their needs. The introduction of ClubCard vouchers created a whole new way for retailer to encourage customer loyalty.

Today Tesco has fully embraced the digital aspect of retailing. The company is a pioneer in customer loyalty programs and online groceries, investing to improve the overall shopping trip for customers, including the online business. Tesco first developed a customer app that allows them to find products, create a shopping basket and arrange for a delivery, all on their smartphones. It syncs seamlessly with their online order, too, so if they remember something they need to buy while on the move, they can add them to the list.

In 2012 they launched a "virtual grocery store" in the UK where customers can order products with their smartphones from interactive billboards in public spaces, a concept proved in the early adopter technology market of South Korea. This virtual place consists of an electronic billboard that displays shelves stocked with products, each with their own barcode.
Zara: Fashion in the Cloud

ZARA has become the flagship of the fashion industry in Spain over the past several years, when Inditex opened more than one thousand stores all around the globe providing fashion clothing at a convenience price. Its success is based on a model of continuous innovation that focuses on reducing the time to market of their collections as much as they can.

Zara has become a leader in using the “customer experience” at the stores to respond more rapidly than its competitors to customer preferences—and is using digital transformation to do so. At each store, the sales staff has the responsibility to profile each customer almost at first contact, to identify their likes and dislikes. Managers and employees are trained to talk to the customer, and discover their preferences for the different collections and designs available at the store.

Using collaborative social business applications running on cloud-based infrastructure, this data is sent on a same-day basis to its headquarters, where the designers go back to the drawing board incorporating these customer preferences and suggestions. Zara has been able to increase the turn-over of its fashion collections to once every 3 weeks compared to 9-10 months of its closest competitor in the industry. The designers update the products, and send them, via cloud-based apps, to the different manufacturers, who in turn have them on the shelves of the stores within 3 weeks.

Leveraging the customer experience as a competitive advantage has shortened the time it takes to go from design conception to the time of arrival at the distribution centers and finally to the stores to be placed on racks, consolidating Zara as one of the world’s most...
**Pepsico: Digital transformation for sustainable farming**

PepsiCo, the owner of global brands Pepsi, Walkers, Quaker Oats and Doritos, is constantly looking for strategies to outperform its competitors in the food and beverages industry. Sometimes, the most obvious programs to increase operational excellence such as a cost cutting strategy, may not always be the main or even best one to gain a competitive edge.

In 2011 PepsiCo announced a reduction of carbon emissions to a 50% of the actual rate in the five years to follow, the “50 in 5” program. This was a very serious goal to achieve lower emissions, which in turn would mean less fuel, less cooling, and therefore less water used in the company’s processes.

Richard Evans, President of Pepsico UK & Ireland realized that the company needed to include the farming chain into its digital strategy, and launched the “i-Crop program”:

![i-Crop](image)

i-Crop is a web-based crop management system designed by Pepsi jointly with Cambridge University, that will enable the company’s farmers around the world to monitor, manage and reduce their water use and carbon emissions, while also maximizing yield and quality. It is designed to help farmers track the development of their crops and, in the long run, economize on their water usage and optimize their harvests. Trials of the water monitoring system have already led to an 8% reduction in water use and a 13% increase in crop yield.

The platform was built using digital measuring devices along the farming territory that sent information on a fifteen minute intervals to a set of relay towers, these towers sent the information to the computers to each of PepsiCo farmers allowing them to decide the right amount of water needed and the exact location where it was needed to get the most of the soil by looking at the data online using the i-Crop software.

Farmers are using smart phone technologies to monitor their crops, by taking photos of their potato fields, that are geotagged, and processed at a central location.

Here, a specially developed model analyzes the plant evolution, allowing for each grower to predict crop development and yield, as well as plan for irrigation and harvesting times (the possibility of these small farmers to access vital bio information on their crops to maximize yields and reduce irrigation costs through changes in technology, is reminiscent of our story on farmers and railways in the 19th century).

**Walmart: The Retailer and the “Social Genome”**

With more than 8,000 stores in 15 countries, Wal-Mart has been for the past four decades the owner of the upper hand in the global retail market. Based on the premise of “providing customers with the goods conveniently and at the lowest price in the market”, the company’s strategy is to constantly grow in any of their five retailing concepts: Sam’s Wholesale Clubs, Small Formats, Supermarkets, Supercenters and Discount Stores.

Walmart today is the largest information technology platform in the world. Its leading edge technology and network design allows the company to forecast demand, control inventory levels, define optimized routes for distribution, and manage its customer and partner relationships better than anybody else in the business.
Walmart Labs and the Social Genome

As part of an expansion project in 2011 Walmart started acquiring technology firms in order to increase its analytics capabilities in order to strengthen the different tracks it had to get to the customer more effectively. This series of acquisitions gave birth to a unit called @WalmartLabs. This new division’s mission has been very clear right from the start:

“To invent the next generation of ecommerce: integrated experiences that leverage the store, the web, and mobile”.

Throughout the years this initiative has been alive it has become an inflection point in retail. Proving that social media and the mobile phone have as a profound an effect on the trajectory of retail in the early years of the 21st century as did the development of highways in the early part of the 20th century.

For example, @WalmartLabs is leading a research project called the “Social Genome,” which uses semantic analysis to collect insightful data about customers based on social network interactions.

It distills tweets, social network and blog posts, videos and other entries for potential data feeds to extract trends with natural-language processing to infer what someone is talking.

The goal is then to use this data to improve the shopping experience through better targeting. This process has created an extensive knowledge base that can become the input for further campaigns.

It is a giant entity-relationship knowledge base built using a wide range of cutting-edge data management, the result, the strategic upper hand to power a broad array of social commerce applications.
Powered by the integration of big data and new analytical methods, the social genome model provides new insights into marketing’s effect on revenue. It involves three broad activities:

- **Causal linkage**: quantifying the contribution of each element of advertising
- **“What if” Scenarios**: predictive analytics tools to run scenarios for business planning
- **Market Tests**: the real-time redistribution of resources across marketing activities according to optimization scenarios

Although those activities are described here as sequential steps, they may occur simultaneously in practice; outputs from one activity feed into another iteratively so that the analytics capability continuously improves.

As a result of our effort, the Social Genome is a vast, constantly changing, up-to-date knowledge base with hundreds of millions of entities and relationships.

We then use the Social Genome to perform semantic analysis of social media and to power a broad array of e-commerce applications. Building the Social Genome has already been challenging in a great number of topics for WalmartLabs, addressing an incredible amount of data in a time effective manner, to the development of new data management solutions.

It has been through employing a wide range of semantic analysis techniques, such as extraction and integration, natural language processing, and machine learning significantly adapted or extended that WalmartLabs has been able to deal with the peculiarities of social media.
5. Conclusions

Based on our framework of how to add value from new technologies, focusing on the five critical dimensions mentioned previously, and on the study of the cases we have presented, we can conclude that companies will engage into expensive strategic distractions in their attempts to develop value-creating digital strategies if they do not follow an integrated strategy that is closely linked to their business strategies and that virtually redesigns all the critical business processes.

At gA, we believe that the winners in this new era of digital transformation will be those that:

1. Review their business strategy and clearly define what critical performance drivers they want to enhance through digital business; is it a better client experience, more cross-selling and loyalty, a better channel segmentation, more effective production and supply chains, using knowledge and empowering our people, enhancing our social responsibility, or all of the above, all of the companies we have analyzed have taken a strategic approach to digital business transformation. This means that we are not giving this mission to someone (remember the 2000's and the idea of a “ebusiness director”, that eventually became a pariah detached from the rest of the organization) but making it an enterprise-wide venture.

2. This is a CEO issue: the CEO is directly involved: digital transformation is a business issue, impacting sales & marketing, operations, human capital, rather than part of the IT agenda.

3. It requires an innovation and learning-focused culture, where experiments will allow for rapid evaluation, learning and correction of course: the digital business transformation is derived from an evolutionary process, rather than disruptive one. The only real truth is that we don’t know, and there is no fixed manual of success.

4. There is a sense of urgency and speed/agility: your competitors will be moving quickly, and you may also be facing digital-born competitors that basically make your business system obsolete.

5. And finally, like all great business model innovations, this is not an IT issue: IT requires a careful mixing of technology, enabling business processes, and people processes that enhance an attitude of innovation and accountability.

At gA, we believe that digital innovation is not a passing fad; it has come to stay and fundamentally reshape our business landscape, successful companies will require a clear strategic mission, senior leadership, and a global rethink of their business processes to decide where digital can really make a difference, and of course, rapid and decisive implementation and learning.