



## TRANSFORM TO THE POWER OF DIGITAL

An Interview with Andy McAfee, Principal Research Scientist at MIT:  
**Capgemini Consulting / MIT Center for Digital Business**  
Joint Research Collaboration



I can't think of any industry sector or company which is immune from digital transformation ... and the pace of change will only increase

## How would you define digital transformation?

It is characterized by the ever growing penetration of digital technologies into every facet of business life. By digital technologies, I not only mean classic enterprise applications but also the corporate usage of technologies such as mobile, analytics, web 2.0, localization, ....

Beyond the technologies themselves, the real interesting phenomenon is how corporations and public institutions are using these technologies to deeply transform every facet of their business.

I would distinguish three categories of usage. The first includes tools that allow companies to become **more scientific** in their **decision-making**, to rely less on gut feelings and be more data-driven. Many companies actually commit to projects, initiatives or investments without carrying out in-depth studies to validate them. Or these studies are done with the single goal of confirming the initial objective. Now companies have a fantastic tool kit to test the relevance of their hypotheses with near-scientific validity.

The second category, which I call **Self-organization**, includes everything that helps people (employees or consumers) come together, increases their ability to communicate and to work together without specifying in advance how they should do so. We include social media and related web 2.0 tools in this category. It's important to note that 2.0 technologies don't have a lot of workflow or hierarchy built in. Their digital environments are very open; they offer every participant the chance to adapt it at will. But the

amazing thing is that the arrival of these technologies hasn't led to chaos or disorganization. In fact, we can see extremely innovative structures and models taking shape. Corporations tend to use self-organization technologies either in the interactions of their employees and partners or in the relationships with their customers.

Finally, the third category, which I call **orchestration**, is in some ways the opposite of the second. It includes technology usages that allow companies to specify and monitor their operating models on a global scale. This isn't new and typically emerged with the ERP systems that came out in the late 1990s, but we are now reaching a level of maturity where corporations are able to execute their operating models and processes on a global scale, exactly as they were designed and planned.

## How has the digital revolution transformed consumer habits in the United States?

The way consumers make decisions, especially younger consumers, has profoundly changed. The emergence of social media and interactive websites has served to lessen the importance of traditional experts or brands in favor of our own networks. Now I no longer rely on a guide written by a food critic to choose a restaurant. Instead, I check out consumer opinions on TripAdvisor and those of my "friends" on Facebook or Foursquare. **Trust** from consumers is more critical than ever and it has shifted from experts and brands to people whose opinions are more valued.

In some sectors this upheaval requires an urgent response. We noticed in the United States that the major financial institutions – banks and insurance

companies – were not very well-perceived by younger consumers. This population doesn't like a sales approach based on a salesperson or a brand which comes to you and proposes a solution. Young people don't trust this kind of expertise anymore, especially when they see how badly designed these companies' websites are for maintaining their relationship in a satisfactory manner.

### **Our traditional Marketing model is broken**, and not just for young consumers.

More and more consumers in older age groups are now changing their consumer habits. The **consumerization of technology** is a profound phenomenon, technology used to be frustrating and isolating, it has become interesting, intuitive and social! The gap between digital natives and immigrants is rapidly closing... Companies need to be right there with their consumers.

### **How are companies responding to this technology revolution? Are they all affected the same way?**

Naturally, this phenomenon disrupts some sectors more than others. For example, the music industry has changed far more than oil transport. It all depends on the products, the market and how things are organized. **I can't think of any company or sector which is immune from digital transformation.** And the bad news is that the speed of change will only increase as technology adoption and usage further blossom! Economist Joseph Schumpeter's "creative destruction" is taking place before our eyes.

Now, if we come back to our initial 3 responses from corporations

and institutions, I think we can find different levels of maturity. Orchestration has been around for a while already and we are reaching a level of complexity in the management and performance of global operating models and processes which has never been reached before. On the other hand, we are just at the beginning of self-organization. Let's take for instance the innovation process: Many corporations are looking at ways to open up their innovation processes which used to be run from the guys in the labs, into an open ecosystem of employees and partners where even consumers play a critical role!

### **Do you think we'll face a disruption of traditional business models?**

We've definitely seen new business models appear on the scene, often very innovative, for example in media or travel distribution. But we shouldn't overstate things. The Media, HiTech and the internet sectors account for less than 10% of the GDP in the United States! **What is at stake is the transformation of the**

**remaining 90%** of all the 'traditional' industries and companies. The US economy is still primarily founded on traditional businesses which are less likely to transform their business model than to adapt it. I don't share the opinion some have expressed, that companies will be completely restructured by these developments, or even that what we recognize today as companies will disappear altogether. Traditional structures still have their value, hierarchy and organization are useful. Even newer companies that have perfectly integrated new information technologies rely on experienced managers, rely on full-time employees and organize career planning. In fact, they are very similar to traditional companies. Silicon Valley companies, for example, still face the familiar challenge of continuously seeking out the best talent.

### **What are the main barriers to change?**

There are several. The cost of making these investments can be one. But the most important without a doubt is companies' resistance to change and



maybe managerial inertia. You should never underestimate the fondness of people and organizations for the status quo. Many executives recognize that using new technologies will increase their ability to analyze and effect change within the company, and change how people work, but many still don't really understand what this means for themselves or their company, and don't see where the innovations will come from. Sometimes they're unwilling to enter into a field they know little about. Sometimes they just don't think it's their job to take the initiative. In other words, a little intellectual revolution is needed to draw benefit from these new technologies. This is not only true of the older industries. Unwillingness to change also affects businesses in newer fields.

### Is it relevant to talk about digital winners and losers?

Yes, the data shows a growing performance gap between the best digital leaders and the others. We have found a strong correlation between the technology adoption of an industry and its level of competition: the higher the technology intensity of an industry, the larger the gap between the best performers of this industry and the others. So yes, mastering digital transformation definitely makes a difference for corporations.



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