LEADING IN THE DIGITAL AGE

Five Critical Skills for Executive Leadership
INTRODUCTION

In a world that's become increasingly digital, large companies can sometimes find it hard to adapt. Companies that will thrive will be led by executives who have an understanding of the forces shaping their environment and an awareness of the skills necessary to master those forces. Below are the four distinct digital forces that are impacting the business landscape.

01 EVOLUTION OF HARDWARE

Hardware will continue to get smaller, faster, and more powerful. Consider this: in 1985, the most powerful computer on the planet was the Cray-2 Supercomputer. It filled an entire room, required a custom liquid-cooling system, and cost $5.5 million to construct. Twenty-seven years later, Apple released a device that topped the Cray’s computing power—it fit in the back pocket of your jeans and cost $199 with a two-year contract. They called it the iPhone 5.

02 HYPERCONNECTIVITY

Americans are increasingly connected and dependent on mobile devices. In 2015, 64% of American adults own a smartphone of some kind, up from 35% in the spring of 2011. Perhaps even more startling is that 10% of Americans own a smartphone but do not have any other form of high-speed internet access at home beyond their phone’s data plan. In 2015, Google confirmed what many had been anticipating for years—more Google searches take place on mobile devices than on computers (with tablets counting as computers) in 10 countries including the US and Japan. More people in the world now have cell phones than ever had landlines. Worldwide, there are currently more than 7 billion mobile subscriptions, almost as many people as there are on earth.

03 SOCIAL

If you’re reading this, you almost certainly don’t have to be convinced about the ubiquity and massive popularity of social media, but just in case you still do, consider this—on average, every minute of every day:

» Instagram users like 1.7 million photos
» YouTube users upload 300 hours of new video
» Snapchat users share 285,000 snaps
» Facebook users like 4.2 million posts

04 DATA

Data production is anticipated to be 44 times greater in 2020 than it was in 2009. Enterprises will store and manage 80% of that data.

1 Pew Research Center, “Chapter One: A Portrait of Smartphone Ownership”, April 2015
3 Quartz, “Move people around the world have cell phones than ever had land-lines”, February 2014
5 Design Taxi, “How Much Data is Created on Facebook, Instagram, Social Media in a Minute”, August 2015
6 CSC, “Big Data Universe Beginning to Explode”, 2012
How does a corporation cope with customers and employees who are increasingly plugged-in, savvy, vocal, and tied to their gadgets? The answer will vary, of course, depending on your company’s specific needs. A solid starting point for any forward-looking executive would be mastering the five distinct skills that this white paper will briefly examine.

**OVERVIEW**

**SKILL 1**  
**EXTERNAL FOCUS**  
Large companies should purposely pursue innovative ideas and products—even if they come from outside the organization.

**SKILL 2**  
**MANAGEMENT OF OPEN & FLUID TEAMS**  
The fast-moving digital world demands teams that are nimble, flexible, and good at working across multiple departments.

**SKILL 3**  
**DATA-DRIVEN EXPERIMENTATION**  
A decrease in the cost of failure and the proliferation of data are driving some leaders to use purposeful experimentation to innovate faster and cheaper than ever before.

**SKILL 4**  
**CUSTOMER CENTRICITY**  
With the wide variety of digital channels, there are more ways than ever for customers to interact with companies. Executives should strive to give consumers a seamless, consistent experience across all channels.

**SKILL 5**  
**CREATION OF A CHANGE-FRIENDLY CULTURE**  
Organizations must rapidly adapt, yet most employees resist change. Now, more than ever, the successful leader must cultivate an atmosphere where change is not a frightening prospect.
“Globalization has changed us into a company that searches the world, not just to sell or to source, but to find intellectual capital—the world’s best talents and greatest ideas.”

— Jack Welch

It took Alexander Graham Bell 75 years to get 50 million people hooked on his product, the telephone. Evan Speigel currently has twice as many active users (100m as of 2015) on Snapchat and it took him only a few years. The app has been steadily growing since its launch in 2011, and was reportedly valued at about $15 billion.* There are a few lessons here that the observant executive could take away.

First, new channels to reach your customers are emerging more quickly than ever before. The telephone took a long time to catch on. Radio was a bit of an easier sell. TV, even easier than that, and so on. Fast forward to today, when a hot app can achieve massive market penetration in a matter of days.

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7 VentureBeat, “Engagement to die for: Snapchat users, 65% of whom upload photos”, May 2015
8 Bloomberg Business, “Snapchat is Raising Money from Alibaba at a $15 Billion Valuation”, March 2015
Secondly, it’s a fact that a disproportionate share of innovation is occurring at small companies, where a less rigid hierarchy and small teams of talented and highly-motivated employees are able to hatch new ideas quickly and cheaply. In fact, on a per-employee basis, small companies generate 13 times as many patents as their larger counterparts.\(^9\)

Thirdly, technology is reducing the transaction costs for external partnerships. Instead of developing products in-house, a potentially costly operation with no guarantee of success, larger companies are allowing smaller organizations to innovate, then partnering with and/or acquiring the little guy.

Major League Baseball’s partnership with Snapchat, for instance, offers big upside for both companies. Since May 2015, user-generated content from MLB games appears on Snapchat’s Our Stories, a feature that stitches together users’ videos and photos at a specific event or location. Interest in live events is growing, so the partnership will help Snapchat continue to define itself as a leader in the live-streaming world and create an additional outlet for potential advertising revenue. Meanwhile, MLB gets to reach 18-34 year olds, an important segment for a sport with aging viewership. The cherry on top? No money was exchanged—a hallmark of smart partnerships created with external focus in mind.\(^10\)

Another great example of external focus is Bluebird, a debit card alternative created through corporate partnership. American Express realized that:

1. There are 70 million Americans who are underbanked—they don’t qualify for a credit card and are deterred by the increasingly high fees associated with maintaining a checking account.
2. Many of these people are Walmart customers.

The two companies joined forces to create Bluebird, which allows customers to make payments and deposits and has opened up an opportunity for them to shop online.\(^11\) The product is on sale in more than 4,000 Walmarts around the country.\(^12\)

TIPS

» Designate a group to be responsible for relationship-building with the tech community
» Start early and small with new relationships
» Invest to help new, smaller partners navigate your larger organization

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\(^10\) Forbes, “Snapchat’s Partnership With MLB Has Big Upside For Both Companies”, May 2015
\(^12\) Walmart News, “Bluebird addresses the need for an affordable, transparent way to manage everyday finances, with premium features, no minimum balance, monthly, or overdraft fees”, October 2012
“A good, quick, small team can beat a big, slow team any time.”

— Bear Bryant

The digital world moves at a million miles an hour. Small, nimble teams are able to quickly respond to new information or customers’ needs. This speed can make all the difference when opportunities present themselves. It’s changed the music industry so fundamentally that it’s sometimes hard to remember that Spotify has only been around since 2008. The Swedish company’s growth has been exponential since its startup days. It now has 1,500 employees serving a user base of 75 million. With expansion like that, organization becomes an issue, which is why Spotify scrapped Scrum for its own take on the Agile Development method.

Spotify’s primary work unit is known as a Squad. Squads are autonomous, cross-functional teams made up of 8 or fewer members. They have end-to-end responsibility for their products: design, deployment, operation and maintenance; everything falls to them.

**EXHIBIT**

Content decay happens fast. If people don’t see it in the first few hours, they’ll likely never see it.

» On average, a Facebook post reaches 75% of its potential engagement in 5 hours.

» An average tweet reaches this 75% mark in less than 3 hrs.

Source: http://blog.wisemetrics.com/tweet
Squads are organized around a long-term mission (like “improve search” or “convert more free users to paying”) but are given autonomy on how they accomplish it. With each Squad responsible for a small portion of the user interface, the company went from a cycle of large and infrequent releases to small and frequent improvements. Instead of waiting for each team to finish their project and combining everything into a massive update, every Squad works at its own pace, releasing updates as needed.

There is no formally appointed squad leader, but the product team provides guidance and strategy. Product “owners” are there to help squads prioritize and plan. The POs keep an eye on the bigger picture, helping to draw the company-wide roadmap and making sure the squads are not duplicating each other’s work.

To facilitate inter-squad collaboration, Spotify groups several squads with similar missions into Tribes. The Tribes offer a way to gather Squads on the rare occasion when they need to work together.

Within a Tribe, each employee is sorted into Chapters. A Chapter cuts across Squads, and is organized by employee discipline (there’s a web developer chapter, a backend chapter, a testing chapter, and so on) and headed up by a Chapter Lead, who handles personnel decisions, performance evaluations and salary negotiations.

Finally there are Guilds. A Guild is a group centered around a specific area of interest, and is open to any interested party, whether or not their job relates to the Guild’s specific topic. It’s relatively low-commitment, usually consisting of an email discussion list and biannual conference meetings.

This matrix-style structure—giving each employee multiple affiliations—ensures that the Squads don’t become too insular and that information and best practices are being shared among all the teams. 

TIPS

» Role model cross-functional cooperation
» Build “flex” capacity into the roles of your most valuable team members
» Create temporary project teams, not new organizations to launch new initiatives
“I have not failed. I’ve just found 10,000 ways that won’t work.”

— Thomas A. Edison

Large corporations have traditionally focused on avoiding failure, preferring to rely heavily on long planning cycles, focus groups and heavy investment in R&D before customers see a new product.

The great innovator Henry Ford pioneered speedy and efficient assembly line manufacturing, dominating the nascent automobile market with his Model T. But since even a small deviation in the manufacturing process could shut down the assembly line for days or weeks, Ford was reluctant to tinker with his original, proven 1907 design. He decided that the cost of experimentation was too high, that shutting down the assembly line to add features unproven with customers was too expensive. As a result, his company’s sales were ultimately surpassed by General Motors’ Chevrolet brand, which was more willing to embrace new exciting features for which consumers were clamoring, such as electric starters, hydraulic brakes, windshield wipers and luxurious interiors.

The logistical barriers that prevented Ford from widespread experimentation have been lowered by technology. In digital channels, the cost of failure is much lower, while feedback is received rapidly, and is more easily quantifiable.

Savvy executives, instead of trying to avoid failure entirely, have now realized that experimentation can lead to faster, cheaper innovation to meet customer needs. Instead of focusing on avoiding failure, these leaders focus on reducing the cost of failure, and putting in place the culture and systems to ensure lessons are learned, regardless of whether the experiment is a success or a failure.
Scott Cook, co-founder of software company Intuit, is one of the leading proponents of this process, which he helped usher into place at his company in the mid-2000s. He replaced the “huge teams” that worked on popular products like QuickBooks with smaller units of “no bigger than four” members. The focus became rapidly developing prototypes and releasing them, letting the market do their testing for them. “We’re now focused on how many weeks after hatching the idea it takes to get the product into the hands of the customers, to test and see how it works,” Cook says. As a result, the length of Intuit’s development process went from a matter of years to a matter of months.\(^\text{18}\)

GE is another trailblazer in data-driven experimentation. In 2015, they announced Predix, a platform specifically designed to collect, store, and analyze data generated by connected industrial devices (e.g. wind turbines, plane engines). GE is hoping that Predix will turn real-time operational data from these machines into insight for better and faster decision-making.\(^\text{14}\)

With the release of the platform, GE also launched the Predix App Factory, a methodology for experimenting to develop industrial internet applications quickly. While GE won’t open Predix to the general public until 2016, they have already created a software center of excellence in San Ramon, California, where they are using the experimental Predix App Factory methodology to build data-driven applications that analyze Predix data.\(^\text{15}\) This allows them to learn what customers value early in the process, with less capital invested, and make changes at a time when it’s less costly to do so, leading to innovation that is achieved more quickly and cheaply than ever before.

### TIPS

- Ask: “What is the fastest and cheapest way to test this?” not “What is the answer?”
- Define safe experimentation boundaries in which employees can experiment without manager, legal or compliance approval
- After failures, focus on learning, not blame
SKILL 4
CUSTOMER CENTRICITY

The digital age has given rise to a staggering variety of new channels for customers to interact with companies, channels that didn’t exist until relatively recently. Consider that in the early 1990s a customer could reasonably expect to interact with a company across three channels: a retail outlet, over the phone and possibly via a catalog that came in the mail. That was it.

Flash forward 20 years and in addition to the aforementioned channels, companies now are expected to manage their brand on standard websites, mobile websites, phone apps, tablet apps, Twitter, Facebook, Instagram, LinkedIn, Pinterest and YouTube, among countless others. With each new channel added, the complexity of managing them rises exponentially. Along with the increased number of channels, customer expectations have also risen. Consumers demand that their experience across all the channels be consistent, seamless and integrated. This becomes challenging for companies in a time when it’s increasingly common for customers to jump around, hitting multiple channels over the course of a single transaction.

Maersk, for instance, makes a big commitment to reach their customers on a variety of social media channels. Many people did not equate Maersk, a shipping, logistics, and oil conglomerate, with tweeting and liking, but as Maersk themselves put it, “Social media is about communication, not marketing. It’s about engaging, not pushing.” They’ve made a commitment, not to be on a lot of channels and push their products, but to “get closer to our customers.” And for Maersk it’s important to do this in as many places as possible because, according to them, the most brilliant thing about social media is: “It doesn’t discriminate.” The housebound and the shy are as visible as the active and the outspoken.” But to find these people, you have to be where they are.16

> In every meeting, ask what your customers want, and listen to the answer
> Spend time learning how, why, and when consumers engage through different devices and channels
> Align metrics and incentives with customers, not channels
> Learn fundamental UX skills
> Watch and listen to your customers. See how they are using different channels and adapt accordingly

“There is only one boss. The customer. And he can fire anybody in the company from the chairman down simply by spending his money somewhere else.”

— Sam Walton
"Many leaders of big organizations, I think, don’t believe that change is possible. But if you look at history, things do change, and if your business is static, you’re likely to have issues."

— Larry Page

The pace of change is accelerating rapidly, leading to increased volatility across the entire corporate world. In 1958, the average tenure of a company in the S&P 500 was 62 years. Today that length of time has shrunk to 18 years. The magnitude of change is felt strongly by employees.

Three out of four marketers think significant and “dramatic” change is coming to their professions, according to a 478-person marketing executive study conducted for Marketo. And that’s after they’re already reeling from change. Marketo CMO Sanjay Dholakia believes “marketing has changed more in the last five years than over the previous hundred, and it is going to change even more in the next five years.”

A 2014 Harvard Business Review article cited a culture survey conducted at a global organization that considered itself to be highly supportive of developing new products, services, and practices. But of the several hundred professionals surveyed only 17% said that developing and trying “new and untested ideas” would be rewarded or approved. Nearly half said that the reaction from their superiors would be “unpredictable.”

Innovation is inherently risky. If employees don’t understand how their superiors will react they might not be willing to get into the innovation game at all. Remember that avoiding short-term risks is likely to put any company at greater risk in the long term.

18 VentureBeat, “Marketers: Think tech has changed your job already? Brace yourself”, January 2015
In the context of this faster pace of change, and the realization that many employees are not engaged, the successful leader must, more than ever, create the right culture: a culture that encourages employees to take smart risks and try new things. Executives should strive to create an atmosphere where change is not a frightening prospect.

**TIPS**

- Clarify your expectations for how employees need to deal with change
- Clarify your tolerance for failure: what type of failure is acceptable, what type isn’t
- Focus on consistency: employees with greater certainty about your reaction will be more likely to take the risks you want
- Learn fundamental UX skills
- Role model change yourself: show yourself taking a risk

**CONCLUSION**

In this new digital age, the leaders of large companies that have a firm grasp and understanding of the forces that are shaping and disrupting the landscape will find themselves in an advantageous position. Simple awareness of the forces—that devices will continue to get more both more advanced and ubiquitous, that connectivity and social networking and giant streams of data will continue to grow in importance in the lives of customers and employees alike—isn’t enough.

Executives need to master five new skills, so they can meet those forces head-on, and harness and mold them to their company’s advantage. The companies that are lucky enough to have strong leaders with the know-how, the foresight, and the determination to learn these skills, will be able to thrive in the digital era, and will find themselves well-prepared to innovate with an eye toward the rapidly-evolving future, for years and decades to come.

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