



**The Transition from Sustaining to Disruptive Technologies: An Industry Assessment of the Past, Present & Future**

**by**

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**Final Report**

*This fellowship explored the concept of digital disruption across a cross section of industries including but not limited to manufacturing, insurance, healthcare, banking, education and retail. Using case studies, the objective was to create a collection of resources to include as part of a broader term project in MCS 2020DE within the Open Education platform at the University of Guelph.*

## **Statement of Goals/Objectives**

The main goal of this fellowship was to build a collection of resources that will help students understand the drivers and enablers of digital disruption and the market-driven forces that allow disruptors to succeed. More specifically, to that end, specific SMART goals of this work were four-fold:

- 1) Establish a body of knowledge (research articles, case studies, etc.) that addresses digital disruption and examples of recent success and/or failure within an industry/function. This will be completed by Winter 2019.
- 2) Propose a framework to design a digital transformation strategy that meets customer needs, creates new value and generates new revenues through digital change. This will be completed by Spring 2019.
- 3) Conclude on proven techniques to lead digital transformation in a disruptive environment. This will be completed by Spring 2019.
- 4) Redesign course project to capitalize on current research, proposed framework and disruptive techniques. This will be completed by Spring 2019.

In this report, I will summarize my research and findings on the impact of digital disruption in various industries. I will also outline techniques that promote and foster such development with the hope that such knowledge can be leveraged by students as they complete the course project to be adopted in MCS 2020DE.

## **Summary of the Drivers and Enablers of Digital Disruption**

### **1) Customer Expectation**

Empowered customers are becoming more digital conscious with higher expectations to be pleased, satisfied and delighted. Customers are now fully aware of prevalent "short cuts" from not waiting in a line to personalized products and services. Such growing expectation forces all industries to reposition their value offering with the intent of exceeding such expectations in potential novel, new ways.

### **2) Speed**

Change is occurring in non-linear increments as businesses today are moving faster than ever before. As one opportunity is introduced in the marketplace, a seismic shift is typically made elsewhere making the need for speed of increasing importance.

### **3) Customer Insight**

No longer can businesses focus on mass marketing or even market segmentation. In today's fast paced world, businesses must understand the individual needs of individual consumers, so their experiences can be personalized. Data hungry marketers and the like have a growing role to astutely understand such preferences and provide solutions therein.

### **4) Artificial Intelligence**

Partially led by "conversational" interfaces such as Siri and Alexa, Artificial Intelligence in its ability to sense, comprehend, analyze, guide and act on behalf is the next

evolution of technology, business and consumers. Delegating preferences will introduce various complementary forms of disruption that needs to be understood.

### 5) **Business Transformation**

Digital disruption requires a business to think differently, to reposition its value proposition and ultimately seek alternative ways to earn revenues and drive profits. Store layouts need to be questioned, value chains need to be redesigned and overall business processes need to be reengineered to unlock such profound future growth.

### **Summary of Industry/Function Success & Failure(s)**

- **Retail Sales** – Perhaps at the forefront is the experience consumers absorb when purchasing their products/services. Key enablers including store sponsored WIFI and social media integration have led the way in designing and implementing multichannel experiences & strategies. Virtual reality and its ability to demonstrate consumer benefits is slow but will be a powerful additive to the already established instore Wi-Fi (enabling social media integration), NFC product tags and in store self-service machines (tablets and the like) acting as a virtual assistant.
- **Human Resources** – An overall push to provide added tools to enhance workforce productivity with an explosion of feedback, surveys and analytical tools and the movement of key functions including recruiting and onboarding to the cloud. Video assessments as part of the overall recruitment planning have had some minor failures but with the advancements of AI, success will be immediate as will the inclusion of Robots with Humans in the workforce.
- **Marketing Media** – The advancement of social media combined with the lower cost of serving customers online is proving to be the most successful development in Marketing today. Such advancements will push organizations to invest trade dollars in digital trade spend leading to accelerate innovation, increase share of wallet and deliver introduce more products in the marketplace. Common limitations include adopting digital technologies pas the ideation phase of the product development process and continuing to personalize the consumer experience.
- **Financial Services** – Now mainstream, online banking is perhaps one of the most revolutionary, successful forms of disruption in the Finance Sector over the last 20 years. Led by the advancement of smartphones, digital wallets are showing promise to eliminate the need for physical cash and plastic of any kind. However, like Uber and Airbnb, the sharing economy is expected pose a threat to banking as consumers will be able to transfer funds between devices without the need for a bank. Blockchain technology is looking to show more promise as the industry better understands the benefits it provides. One area that has had some issues (not considered a failure) is the continued push by consumers for enhanced online privacy and cybersecurity that should be improved with the advancement of smartphones

- **Healthcare** – One area that is showing potential promise as baby boomers age is the healthcare delivery model and the impact technology is playing. Considered more progressive in nature, as consumers gain more choices over the way their healthcare is delivered, they will also increasingly be able to access treatments that are specifically tailored to their genetic makeup and health history. Such personalized therapies will be the subject of increased regulation but once proven, will keep patients out of hospitals and in institutions that cater to their specific ailment from a private equity technology provider such as Amazon!

### **Summary of a Framework for Success**

The leading Framework that attempts to discuss the development and creation of digital disruption was prepared by Clayton Christensen and later improved by Michael Raynor in his highly acclaimed book entitled "The Innovators Solution". Subsequently refined by Andrew King and Baljir Baatartogtokh, the consensus is that successful disruption requires (all) four key unique elements to foster and grow in the marketplace.

- 1) **Incumbents are improving along a trajectory of innovation** - Hilton Hotels, as an example, is constantly looking for avenues to improve customer experience (a key enabler as noted) via more personal service and/or amenities provided. This has led to slight improvements, over time, in the delivery model ranging from technologically connected rooms to rather simple improvements such as digital locks and access cards.
- 2) **The pace of sustaining innovation over-shoots customer needs** – Airbnb has been able to successfully over-shoot customer needs in this very mature industry in two distinct ways that Hilton struggles with. First, Airbnb, has facilitated the creation of this peer to peer network in the hotel industry which has enabled consumers to travel that otherwise did not have the financial means to do so. Second, Airbnb is providing an authentic experience to business professionals via a local host, the personal atmosphere of a private accommodation and the ability to charge using a corporate account. This experience can be further customized for millennials via open common rooms during the evening time for open collaboration.
- 3) **Incumbents have the capability to respond but fail to exploit it.**  
Due in part to numerous issues including high fixed costs, brand position and strategic position, incumbent companies who must respond become complacent and either ignore such disruption or work around it and cater to other segments who fit their current position in the marketplace. To the benefit of Airbnb, Hilton Hotels was slow to react to Airbnb's entry and argued that the business model is not sustainable given the lack of control it presents to the consumer. Now in its tenth year, Airbnb has a market capitalization worth more than Hilton and doesn't own any assets.
- 4) **Incumbents flounder because of the disruption.**

Still considered to be floundering in 2018, Hilton Hotels has tried to counter the entry of Airbnb by partnering with Foursquare as a mobile concierge offering personalized recommendations by locals in addition to new connected rooms enabling enhanced connectivity from streaming technology. Considered slight improvements with no real disruption, Airbnb is expected to close any competitive gaps in 2019 with their entry into the real estate market via apartment sublets to work around housing regulations and manage control with Hilton Hotels.

The key element in this theory is for disruptors to find companies within industries whereby the players will flounder because of the startup disruption. The floundering can happen due to large fixed costs, engrained culture and/or poor management response. Hilton Hotels and its compliancy has enabled Airbnb to quickly capture marketspace and market capitalization into 2020.

### **Proven Techniques to Lead Digital Disruption**

#### **1) Establish a common set of values and shared beliefs**

Companies that have been able to survive disruptions successfully have crafted organizational structures that reduce this uncertainty. In these companies, employees tend to worry less about organizational roles and structures than in less successful companies.

#### **2) Give more autonomy to employees, while maintaining a strong central framework**

It is almost impossible for a company to move as fast as some markets are evolving if it operates with a hierarchy that is too rigid. That, the need to come together as a team is critical as it provides a line of sight to upcoming disruption.

#### **3) Develop the ability to continually reallocate resources and reorganize rapidly**

Continuous reconfiguration implies that companies should develop the ability to continually reallocate resources and reorganize themselves rapidly. Continuous reconfiguration provides both stability as well as vitality. It encourages companies to disengage from exhausted opportunities and repurpose valuable resources, rather than vainly defend existing competitive advantages.

#### **4) Look for opportunities outside of industry boundaries**

The critical criteria for a large organization seeking to be a disruptor is that they must have appropriate business models and financial structures for the markets they are going after – generally, they won't succeed if they go into new markets with the same structures they used for existing ones. It is proven to be too difficult and time consuming.

### **Summary of New Course Project**

Based on the research findings, MCS 2020DE will feature a new project whereby students will be introduced to a fictitious retail store that mimics Best Buy. This

retail chain is hungry to lead the marketplace in digital disruption and is interested in introducing a product and/or service model that facilitates and introduces the development of digital disruption in one more industries. Looking to diversity the business portfolio, students will be asked to prepare a small business plan in an industry of their choice. Key enablers for success along with an idea that **leverages** the framework as outlined in this report will be expected along with the proven techniques to lead digital disruption in the marketplace.

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