Disruptive Technology To Spur Economic Growth

Disruption – the word has been bandied about, by techno-marketers claiming a product would replace everything you've owned, or by entrepreneurs hawking an idea which would supposedly revolutionize the way you live. But what does it mean to be truly disruptive?

In a changing world that becomes less familiar with every year that passes, we've seen social media platforms in vogue one moment and shutter the next. We've also seen technologies rise in prominence only to phase out and be replaced by newer, shiner hardware.

A recent write-up by Gartner said disruption "has moved from an infrequent inconvenience to a consistent stream of change that is redefining markets and entire industries." But before we talk about how change is now a 24/7 thing and we are being disrupted every waking moment of our lives, let's take a short walk down memory lane to a recent saga of disruption in online media – video.

Disruption Cut Short

As more people become connected thanks to ubiquitous mobile gadgets and are introduced to high-speed Internet, viewership of online videos has boomed. A Statista report found that in 2015, the number of digital video viewers in the US surpassed 200 million. Online video penetration was found to have reached 95.9% in South Korea, 84.1% in India, and 77% in Brazil.

The public's consumption of online media became more video-heavy with the launch of video-hosting sites Vimeo in 2004 and YouTube in 2005. One interesting online video service which gained prominence recently was Vine. Allowing its users to post up six-second videos, Vine enjoyed brief popularity in today's world that demands quick, brief media consumption.

The service quickly gave birth to its own coterie of "Vine stars" – ordinary members who racked up millions of views on the platform due to their creative and often humorous uploads. However, the notoriety Vine gained was short-lived – parent company Twitter decided to pull the plug on the platform in October 2016, about three years after Vine's 2013 launch.

In those three years however, several competing video services came into being. Instagram, the photo-hosting service already enjoying massive success in member recruitment since its start in 2010, launched its own video-hosting capabilities about six months after Vine's inception. It also launched its own version of looped video called Boomerang in October 2015. Live-streaming video platform Periscope launched in 2015. Most recently, Facebook launched its live video feature in April 2016.

While Vine was one service that became victim to an increasingly competitive industry, the survivors that were left had a growing user-base of hundreds of millions. One survivor of the online video tussle, Snapchat, was recently reported as having ad revenue that stands to reach USD 1 billion by 2017.

So, what is to be learnt from this online video saga? Increasingly fast Internet resulted in more video viewers across the world and it took a disruptive force such as Vine, with a reported 200 million monthly views in its heyday, to spur more established industry players towards increasing their rate of online video adoption.

The success disruptors enjoy during the initial phase of disruption can be manifold but in this digital era, anything can be repeated in a short amount of time – similar competing features can easily be launched especially by players who have resources and expertise on hand.

Maintain Trajectory By Leveraging Data

In their search for growth and increased profitability, how can organizations disrupt their respective industries, corner their own market, edge out the competition, innovate, and maintain this trend of success ad inifinitum? They'll need something that can leverage on existing technologies – Vine was hardly a pioneer as Internet video existed since the late 1990's.

They will also need something that anticipates what customers really want – again, Vine's catering to people wanting quick and short media consumption. And finally, organizations need something which can predict what the future holds, taking into account moves being made by the competition and the general atmosphere of the industry, in order to evolve, adapt, and last.

Enter Big Data Analytics (BDA). Hardly a new concept as the first mention of "Big Data" was attributed to an Association for Computing Machinery articmle published in August 1999 where its writers called the advancement in computing power a blessing and a curse -

> *Understanding the data resulting from high-end computations is a significant endeavor... it is just plain difficult to look at all the numbers."*

But BDA has proven to be invaluable in boosting the productivity and efficiency of organizations across the globe. One US restaurateur employed BDA to analyze data from its POS systems, promotional campaigns, customer feedback and stocks. Using near real-time analysis, the company could modify its operations to enhance its inventory, ensuring its branches never ran out of stock or experienced an oversupply.

An Australian telecommunications company used BDA to trawl through its network data to create specific sets of operational standards. Using real-time analysis of data, the company would be alerted should any dip in network quality be noted and the system it uses is intelligent enough to recommend remedial actions to be taken.

These are some anecdotes as to how BDA has been used by companies to overhaul the way they've been operating in order to be more efficient. This will hold them in good stead when competing against less data-reliant companies who are slower to react to changes in the market.

Probably the most glaring disruption in recent memory is how ride-hailing mobile app Uber has been to the world's taxi industry. The company heavily relied on location-based data to match drivers with the closest passengers and also predictive analytics to determine the best routes for its rides with regards to traffic conditions.

The company even crunched data to determine prices – less drivers on the road (compared to passengers requesting for rides) results in "surge pricing" where prices are hiked in order to attract more drivers to hit the streets.

Will these strategies reward Uber in the long term and see it continue growing as the go-to option for transportation? While some regulatory bodies have clamped down on the app to protect their domestic taxi industries, the disruptive company should continue to enjoy worldwide success if it continues to make data-driven decisions.

Economic Growth Via Data Disruption

Harnessing dormant data, delving into the gritty details, and emerging with impactful insights, all have the opportunity to make life better for everyone. But how does this translate to growing the economy – not only giving everyone their fair share of the pie, but growing the size of the pie too?

Disruptive technologies such as mobile Internet, the Internet of Things (IoT), and the Cloud were said to have the ability to influence every aspect of our lives going forward. According to the McKinsey Global Institute, mobile Internet could potentially generate a USD 11 trillion impact on the economy in 2025 and save up to 20% of treatment costs for patients with chronic diseases.

This is due to the monitoring of the health of patients remotely, gathering all manner of bodily data from heart rates to amount of breaths, and body temperature. All this is, in turn, a demonstration of how integral sensor data from the IoT are. Healthcare professionals would then be able to track how their patients are doing, be notified if any downward data trends are picked up by their monitoring system, and carry out preventive medical care before any untoward health episodes occur.

The research group also estimated that the IoT, thanks to affordable sensors and wireless RFID devices, "offers potential to drive productivity across USD 36 trillion in operating costs of key affected industries: manufacturing, healthcare, and mining." The ability to trim costs and optimize business processes can be realized when companies in industries such as logistics use natural resources efficiently.

Additionally, the Cloud, which provides information and services wirelessly such as over the Internet, could increase productivity up to 20% thanks to high-speed networks.

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Future-Proofing

What then should organizations do in order to make the most out of data-enabled technology and possibly be disruptors themselves? Challenging the status quo will be difficult. Changing corporate policies which have been advantageous in the past, retraining employees, and reinvesting in newer technologies all sound like a pain – if only in the short term.

However, allowing data-centric decisions to craft the company's future strategies is the pertinent thing to do. PricewaterhouseCoopers expects that by 2020, companies will be even more customer-oriented and rely on real-time data consolidated from mobile sources such as smartphones, sensors, and wearable devices.

Fusionex has been at the forefront of BDA technology for over a decade and is constantly working to increase the viability and effectiveness of its software solutions. In order to better assist organizations with rising above the competition and disrupting their respective industries, Fusionex has incorporated disruptive technologies mentioned above, from data compilation, to analysis, to utilizing IoT devices, and more.

As making data a central factor for corporate decision-making is greatly dependent on a myriad of factors, Fusionex experts are continuously working with clients to jointly develop the most effective and applicable solutions for their specific needs – giving them a much needed boost to future-proof their businesses before other competitors, or changing technology, threatens to pull the rug from under them.