



6 Ds of Technology

Rajkumar.R¹, Tilak.S², Yugendra. P. V³

Assistant Professor¹, III BCA Student^{2,3}

^{1,2,3}Sri Krishna Arts and Science College, Coimbatore^{1,2,3}

ABSTRACT

Economic evolution requires technological disruption to create the potential for new, healthier growth on both a micro and macro scale. You can harness the power of digital technology by fully understanding the 6 Ds of digital technology and using it to create more efficient, effective operations while increasing the bottom line.

Keywords--*Digitization, Deception, Disruption, Demonetization, Dematerialization, Democratization*

I. Introduction

We live in extraordinary times. News travels around the world in an instant. Always-connected devices provide constant access to music, movies, games, communication, and knowledge. Powerful technologies that were once only available to large organisations and governments are becoming more accessible and affordable as a result of digitization, ranging from biotechnology to artificial intelligence.

The possibility of entrepreneurs disrupting industries and corporate behemoths going extinct has never been greater.

Disruption used to mean creating a product or service that people needed but didn't have yet, then finding a way to produce it with higher quality and lower costs than your competitors. This entailed hiring hundreds or thousands of people, having a large physical space to house them in, and waiting years, if not decades, for hard work to pay off and products to be realised.

Traditional industrial processes are being disrupted by technology, and they will never be the same."

However, the landscape of 21st-century business has taken on a dramatically different look and feel as a result of digital technologies evolving at exponential rates of change.

Organizational structures are evolving. Modern start-ups are small organisations focused on information technologies, rather than thousands of employees and large physical plants. They dematerialize what was previously physical and develop new products and revenue streams in months, if not weeks.

It is no longer necessary to be a large corporation to have a large impact.

Traditional industrial processes are being disrupted by technology, and there will be no turning back. This disruption presents numerous opportunities for forward-thinking entrepreneurs.

Understanding and internalising the digital technology growth cycle is the key to positively impacting the lives of millions of people. This growth cycle is comprised of six key steps, dubbed the Six Ds of Exponentials by Peter Diamandis: digitization, deception, disruption, demonetization, dematerialization, and democratisation.

II. Digitization

Digitalization is the first of the exponential 6Ds, and it is critical to begin this process of leveraging a business or a new technology. Because of the constant evolution of technology and the democratisation of access to digital media, everything digital is more easily propagated, but rest assured that we will discuss this further later.

Going back to the first exponential D, we can use photos that went from being physical to being digital as a simple example; this process made access to the images and their sharing easier and faster[1].

However, digitalization does not guarantee that a company will be in charge of exponential technology. For example, consider the case of Kodak, which pioneered the development of the digital camera but did not believe in the potential of its new product, preferring to stick with traditional photo models.

III. Deception

And what could be the reason for Kodak's decision to abandon this new technology? One solution could be found in the second of the exponential 6Ds: disappointment. The journey of new technology begins with frustration with the performance of the product or service because it does not immediately correspond to financial returns for the organization[2].

At this point, technology doubles its capacity or profit, but these can be so small that the double appears insignificant. In the case of cameras, the evolution in quality appeared so small that the company decided it was not worth it; however, what it did not realise was that the growth would be exponential in the long run.

After all, going from 0.01 to 0.02 megapixels can be discouraging at first, but by the time we reach 1 megapixel, we're talking about a truly disruptive double with 2, 4, and 8 megapixels.

IV. Disruption

The presence of a new technology that shakes up a market segment causes disruption, and it is from this that we realise the business's potential. And, as Peter Diamandis puts it, "because disruption follows disappointment, the original technological threat often appears ridiculously insignificant."

Yes, this can lead to companies giving up before reaching that level of exponential growth. However, as the new technology becomes more widely accepted and used, sales begin to exceed expectations, indicating the disruption stage[3].

Netflix, which digitalized movie access, was a company that bet on a disruptive technology. The company may have been disappointed by the difficulty of consuming its content at high speed on the Internet, but this was quickly overcome, and people began to subscribe to this type of product in greater numbers.

V. Demonetization

Demonetization is the ability to provide a product or service for free. Images, for example, no longer need to be developed because they can be viewed on laptops and smartphones, which even have cameras.

Similarly, Netflix provides access to several movies through monthly payments, whereas DVD rentals were paid separately. Similarly, Spotify offers free music access in its freemium model[4].

VI. Dematerialization

Dematerialization is the stage at which new technology takes over the market and the old one virtually disappears. CDs and DVDs, like photographic film, will cease to exist to make way for new digital business models.

And, as a result of smartphones' ability to take pictures, record videos, watch series, and even pay bills and perform banking transactions, services have become dematerialized, albeit partially.

VII. Democratization

Democratization occurs when almost anyone can use a service at an affordable price. As is the case with smartphone internet searches, which have democratized access to information. Likewise, watching videos and listening to music have become simpler and more accessible activities[5].

In this sense, democratisation is the final of the exponential 6Ds that mark the end of this cycle of technological growth, with a large portion of society guaranteed access to the service.

VIII. Conclusion

Newspapers and compact discs are two recent examples. The entertainment and media industries are still dealing with the fallout from digitization, attempting to transform and update antiquated practises. However, it will not end with digital media. As more of the economy, from medicine to manufacturing, is digitised, industries will follow an exponential curve and be similarly disrupted.

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