

Comparing old and new technologies and their impact on the world business essay



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Technology is a broad concept that deals with human as well as other animal species usage and knowledge of tools and crafts, and how it affects a species ability to control and adapt to its environment. [1]

Technological change has become the driving force of innovation, productivity, growth and development of the economy.[1]

Technology is all about using the technical and scientific knowledge we have to help solve problems (or) to make life better. Now a day's technology that is already available and being used for example the internet, mobile phones and computers (or) you can also develop new technology. Developing new technology may be more difficult to do, but if you have an idea for this and it can be used to make public services also. [1]

Examples to compare the Old and New technology:

Laser printers vs. inkjet printers, landline services vs. cell phones etc. Our study analyzes industry equilibrium in a model with an incumbent and an entrant that have heterogeneous product offering capabilities: the

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incumbent can offer either or both types of products, while the entrant can only offer new products. Firms make capacity, pricing, or quantity decisions that maximize their ex-ante profit. Within this framework, we analyze deterministic games with perfect information and stochastic games with uncertain valuation of the disruptive technology.[2]

New technology separates into two types:

Sustaining technology

Disruptive technology

Sustaining Technology:

Sustaining technologies tend to maintain a rate of improvement; that is, they give customers something more (or) better in the attributes they already value. It also relies on incremental improvements to an already established technology.[2]

Disruptive technology:

Disruptive technology means a new technology that unexpectedly displaces an established technology and lacks refinement and performance problem because it's new technology.[3]

A new technology that has a serious impact on the status quo and changes the way people have been dealing with something. The most disruptive technologies in history have been the telephone, computer and the Internet.
[3]

First, disruptive products are simpler and cheaper; they generally promise lower margins, not greater profits. Second, disruptive technologies typically are first commercialized in emerging or insignificant markets. And third, leading firms' most profitable customers generally don't want, and indeed initially can't use, products based on disruptive technologies.[3]

Theory:

New technology which radically changes the way things have been done in the past is commonly referred to as 'disruptive technology'. Whilst disruption has negative connotations, if understood and evaluated early on, such innovations can also provide tremendous breakthrough opportunities to invest in paradigm shifting technology, to drive growth and the Establishment a powerful future position.[4]

Disruptive technology and disruptive innovation are terms used in business and technology literature to describe innovation that improve a product or service in ways that the market does not expect, typically by being lower priced or designed for a different set of consumers.[4]

Disruptive innovations can be broadly classified into low-end and new-market disruptive innovations. A new-market disruptive innovation is often aimed at non-consumption, [4] whereas a lower-end disruptive innovation is aimed at mainstream customers for whom price is more important than quality.[4]

Disruptive technologies are particularly threatening to the leaders of an existing market, because they are competition coming from an unexpected direction. A disruptive technology can come to dominate an existing market <https://assignbuster.com/comparing-old-and-new-technologies-and-their-impact-on-the-world-business-essay/>

by either filling a role in a new market that the older technology could not fill or by successively moving up-market through performance improvements until finally displacing the market incumbents.[4]

Disruptive technology Introduce a very different package of attributes from the one mainstream customer historically value, and they often perform far worse along one or two dimensions that are particularly important to those customers. As a rule, mainstream customers are unwilling to use a disruptive product in applications they know and understand. At first, then, disruptive technologies tend to be used and valued only in new markets or new applications; in fact, they generally make possible the emergence of new markets.[4]

In general, old products based on sustaining technology are perceived to be superior to the new ones based on disruptive technology. However, the latter have distinctive features that allow them to attract an exclusive set of customers.[4]

Examples:

1. UPS is example of how new technologies can help a company to improve its operating performance. However it is using advanced technology to improve the way it operates its primary business and to leverage those skills and infrastructure to move into other related lines of business. UPS has developed software applications and mobile devices with the support of wireless networks for shipping and tracking services. Its software applications work on a common platform with a single database, enabling it

to optimise the route and load plans faster in order to surpass its competitors. [5]

UPS software applications generate reports for managers that allow them to better plan and control the delivery routes. Better planning and route control result in time saving and more efficient use of resources.

2. A team of robotics engineers have developed a system that makes pneumatic artificial muscles much quieter than those used in labs today.[6]

Annoying noise produced by air pumps or electric motors in human-like robots is among the factors hampering their entry into consumer market. Researchers at the University of Nevada in Reno came up with an idea how to make artificial muscles work silently.[6]

Instead of an air compressor the pressure is supplied by a sealed capsule with a metal hydride powder. The material can absorb and release large amounts hydrogen gas if heated and cooled down. The property makes them of much interest for hydrogen motor researchers, since safe storage of the explosive gas is one of the biggest challenges for the industry.[6]

These are the examples for the Impact of Disruptive Technologies for Technology Businesses.

Disruptive technology is significantly cheaper than current and is much higher performing, greater functionality and more convenient to use.[7]

Disruptive technologies are scientific discoveries that break through the usual product (or) technology capabilities and provide a basis for new

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competitive paradigm Discontinuous innovations are products, processes, and services that provide exponential improvements in the value received by the customer much in the same vein. The definitions used by different authors to describe the business strategy focus they used to define disruptive technologies. These definitions are classified by a number of business strategy parameters used to describe disruptive technologies.[7]

Disruptive technologies and discontinuous innovations present a unique challenge and opportunity for R&D organizations seeking to decide on their R&D investments and for

Manufacturing organizations devising plans for their commercialization efforts and meeting the challenge to reinvent the corporation. These technologies do not have a proven path from scientific discovery to mass production and, therefore, require novel approaches although they are the wellspring of wealth creation and new competency generation for the firms that introduce such innovations. Many firms, especially the larger ones, seem reluctant to familiarize themselves with these technologies quickly. The trend seems to be that these firms prefer to react to a proven disruptive technology that has changed the

Product market paradigm. As a result, the community of corporate customers does not readily accept them until they are proven, an event that usually means corporate customers are late entries into the market.[7]

Sometimes, advocates of a new technology make grandiose claims about the new technology it will double productivity, save lives, cure cancer, end war, and eliminate spam and telemarketing. They produce all sorts of literature <https://assignbuster.com/comparing-old-and-new-technologies-and-their-impact-on-the-world-business-essay/>

enumerating the advantages of the new technology. Invariably, the new technology is immature – often available in prototype form, However, that doesn't matter, because:[8]

Look at all the cool things the new technology can do.

The current immaturity, instability, unreliability and other drawbacks of the new technology are mere implementation details that need to be worked out, whereas the drawbacks of the old technology are fundamental limitations which cannot be designed out or designed around. [8]

What really happens is one of several things:

1. New technology becomes irrelevant.
2. New technology's features are subsumed by old technology. New technology may become a player in the market, or maybe not.
3. New technology really is a Disruptive Technology.

All technology was once new technology. New technology has extended our life spans, raised our standard of living, augmented our understanding of the universe, etc. New technology has saved many of us.