



**Just A Moment...**  
IT Commentary

## **Disruptive Technology**

*by Leon A. Enriquez*

In the book titled *'The Innovator's Dilemma'*, author Clayton Christensen of Harvard Business School makes a clear distinction between the two observations of technology, namely, 'sustaining' versus 'disruptive'.

In the first instance, *'sustaining'* refers to new technology that delivers improved performance to well-established products which work in harmony with the preferences of the mainstream customers who benefit from these technologies.

The role surrounding such sustaining technologies is clear. And this is regardless of whether the innovation in these established products is incremental or even dramatic. But it is an accepted norm, and often taken at face value.

On the other hand, *'disruptive'* refers to new technology that usually has features that are recognised and valued by only a few customers who usually form the new segment of early adopters.

The frequent character traits of typical products built upon a disruptive technology, are obvious – cheaper, simpler, and convenient to the end-user – and even when they underperform the acceptable mainstream market incumbent.

The so-called underperformance is only for a brief period until an *'inflection point'* is reached. Then, just as suddenly, this disruptive technology breaks out of the established markets. What follows dramatically is that it eats into the niched market, offering significant advantages that become obvious in contrast.



Thus, the real payback value and impact of such a disruptive technology lies more in how it upsets existing business models rather than how it enables new business. This is the innovator's dilemma in hindsight.

And yet, there is much more to disruptive technology – where technology changes go beyond the mere straightforward comparisons of the sustaining versus disruptive model.

Going beyond Christensen's observations of disruptive technologies, it is quite clearly an entirely new mindset that starts the new technology acquisition in a totally radical way. As such, the changing new technology is disruptive because the higher frequency of occurrence comes with a startling impact.

Such disruptive or radical technologies provide a good basis for the creation of an entirely different industry or segment. The paradox is the actual destruction of the old mainstream regime of the entrenched sustaining technology.

This mindset spurs both the creator or inventor as well as users, to identify and fulfill real needs in ways that have never before been articulated by other approaches. Presently, the interplay between such sustaining and disruptive technologies occur mostly at the research and development departments of high-tech companies. But the situation is changing.

This phenomenon is due to increased awareness of the power of technology, as well as the ubiquitous Internet which has captured a worldwide audience. For instance, it is now possible to recognise the emergence of a disruptive technology long before it topples the sustaining one that has been too long taken for granted.

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