

Monthly Research Commentary

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Disruptive change revisited: it's much rarer than we think

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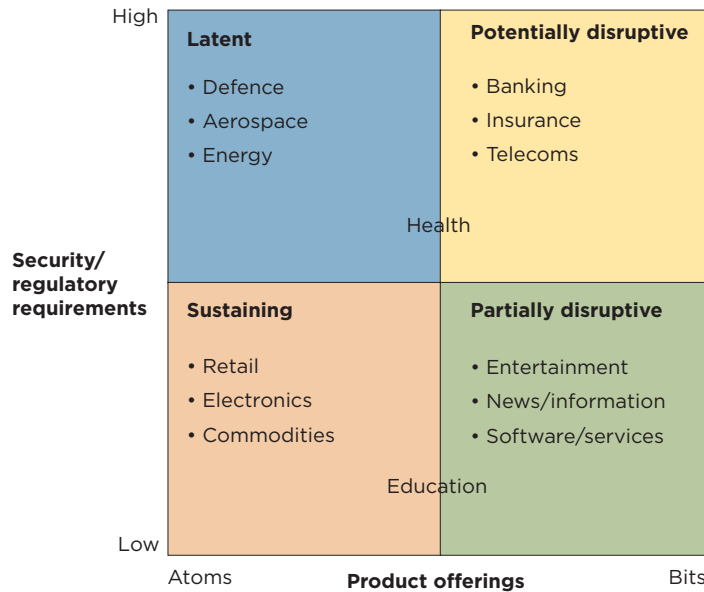
It didn't take long after last month's introduction of the Apple iPad for the D-word to resurface. Was this slick new Tablet device *disruptive* to a) laptop computers, b) newspapers and media, and/or c) printed books? Such questions tend to follow any major new IT industry development. How many times have you asked whether this or that event or technology was disruptive to your business? But what did you really mean when you said it?

Our industry tends to use disruptive in two very different ways. From an etymological perspective, the word *disrupt* stems from the Latin *rumpere*, meaning to break, so that disrupt means literally to *break in two*. But the everyday usage of disrupt is more along the lines of forcing the normal course of events into disorder – for example, disrupting a meeting. From this perspective, any technology or event that marks a break away from a traditional method of doing business or creates significant market confusion might fairly be said to be disruptive in nature. Think about the iPod, iPhone, cloud computing, Software-as-a-Service, social networks, Twitter, etc.

But such has been the influence of Clayton Christensen, and his 1997 book, *The Innovator's Dilemma*, that 'disruptive technology' has taken on a narrower and yet more potent meaning. According to Christensen, truly *disruptive technologies* are those that are difficult or even impossible for established market leaders to co-opt, and thus are inevitably led by new firms. In contrast, Christensen uses the term *sustaining technologies* to describe innovations that, however powerful, do not fundamentally threaten the positions and business models of established market leaders. For example, Christensen describes how the personal computer was disruptive to the minicomputer business, hence the rapid disappearance of Digital, Prime, Wang, Data General, etc. Yet an equally revolutionary technology, the CD-ROM, proved sustaining for the vinyl record companies, which adjusted and prospered – until the iPod.

Thus, depending upon whether one uses *disruptive* in the everyday or Christensen sense, disruptive change is either very common or very rare, and this inevitably creates confusion. Worse still, many of us, especially those in the media, routinely use phrases like 'disruptive change' and 'disruptive technology' in the everyday sense, but expect or indirectly imply Christensen-like market effects, leading to hype, exaggerations and misunderstandings.

At the LEF, and for business purposes in general, we think it is better to use 'disruptive technology' in the narrower Christensen manner. When we do this, we see that this sort of market changing disruption is actually quite rare outside of the IT industry itself. This is especially true for the Internet, which despite all of its extraordinary capabilities and influence is almost always sustaining in nature.



Internet impact varies by industry

LEF clients will probably recognize this diagram, which in various iterations we have been using for some five years. It shows that the Internet has thus far been proved to be disruptive in the Christensen sense to only a small set of low-security, information (bit-based) industries, and even there the disruptions are only partial. Let's look briefly at each of the four quadrants.

- Lower right.** Low-security, digital businesses are by far the most affected. Recording companies, publishers, advertisers and packaged software companies are all facing major business model challenges. On the other hand, Microsoft is still earning billions. Television, cinema and radio show few signs of going away; online and offline advertising exist side by side; and even traditional publishers, while often suffering, are far from dead. There are even many examples such as education where the Internet has been almost entirely sustaining. The bottom line is that only the music industry has been highly disrupted; in the other areas, it's partial disruption at most.
- Upper right.** High-security, digital businesses still have the potential for disruptive change, but there has been little dramatic change thus far. Whether one is looking at telecoms (Skype), banking (PayPal), insurance or health care, there are few examples of new firms leveraging the Internet to displace established leaders. Smart phones are a good example: the Apple iPhone and Google Android are challenging the Blackberry's domination of mobile enterprise messaging, but they are very much sustaining (even rejuvenating) for the established global telecoms giants. If truly disruptive change is to come to the carriers, it will likely take many more years.
- Lower left.** While Amazon and other online retailers have had a major impact on low-security, physical product businesses, established players such as Walmart and Tesco, as well as countless smaller firms, have found the Internet to be sustaining to their businesses. Even physical bookstores such as Borders in the US and Waterstones in the UK have been relatively stable. There are few, if any, high-profile disruptive casualties.
- Upper left.** The impact of the Internet on the supplier structures in high-security, physical businesses has been minimal. On the other hand, the use of consumerized technologies to (for example) manage virtual weaponry, such as predator drones, is beginning to have revolutionary effects on military training and culture. Thus, in this quadrant, consumerization and the Internet are having two very different effects (which is something we will be studying further), but overall IT has been a sustaining force.

More opportunity than fear

The bottom line is that from a Christensen perspective, information technology and the Internet have been far more sustaining than disruptive for the great majority of industries. Most of the real competitive disruptions have been within the IT sector itself, and in particular between the different generations of hardware and software vendors. In contrast, it has always been striking that the same set of IT services vendors – IBM, EDS (now HP), Accenture (formerly Andersen), and CSC have been the dominant players for literally decades. This suggests that, for example, cloud computing can be a major IT industry force without necessarily disrupting the IT services business.

In other sectors such as travel, financial services, retail, health care and education, the Internet has nearly always been far more sustaining than disruptive, and thus IT is something to be embraced much more than feared. This will likely prove true for the iPad as well. For a first generation effort, it is an extremely impressive product that will surely improve over time. Apple's biggest risk and challenge has always been the flip side of its greatest strength – its unwavering belief in doing things in its own integrated, often proprietary way, with little regard to established market norms or standards (see, for example, its decision not to support Flash on the iPad).

Over the course of 2010, we will be covering the battle between Apple, Google, Microsoft and RIM from an enterprise perspective, and substantial changes in mobile supplier leadership seem likely. But this is mostly something for the vendor side of the industry to worry about, especially European and Japanese firms who see themselves being bypassed in markets they used to lead. The rest of us would be wise to spend less time pondering the potentially disruptive effects of the iPad or any other new technology. The real story will be the many new sources of value and the ever-expanding opportunities IT creates to sustain our businesses and industries going forward.

Leading Edge Forum

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