Telemedicine

2 Feb 2017

Class 14

Disruptive Technologies

- An innovation that creates a new market and value network and eventually **disrupts an existing market** and value network, **displacing established market** leading firms, products and alliances.

- Start out small with much faster growth rate

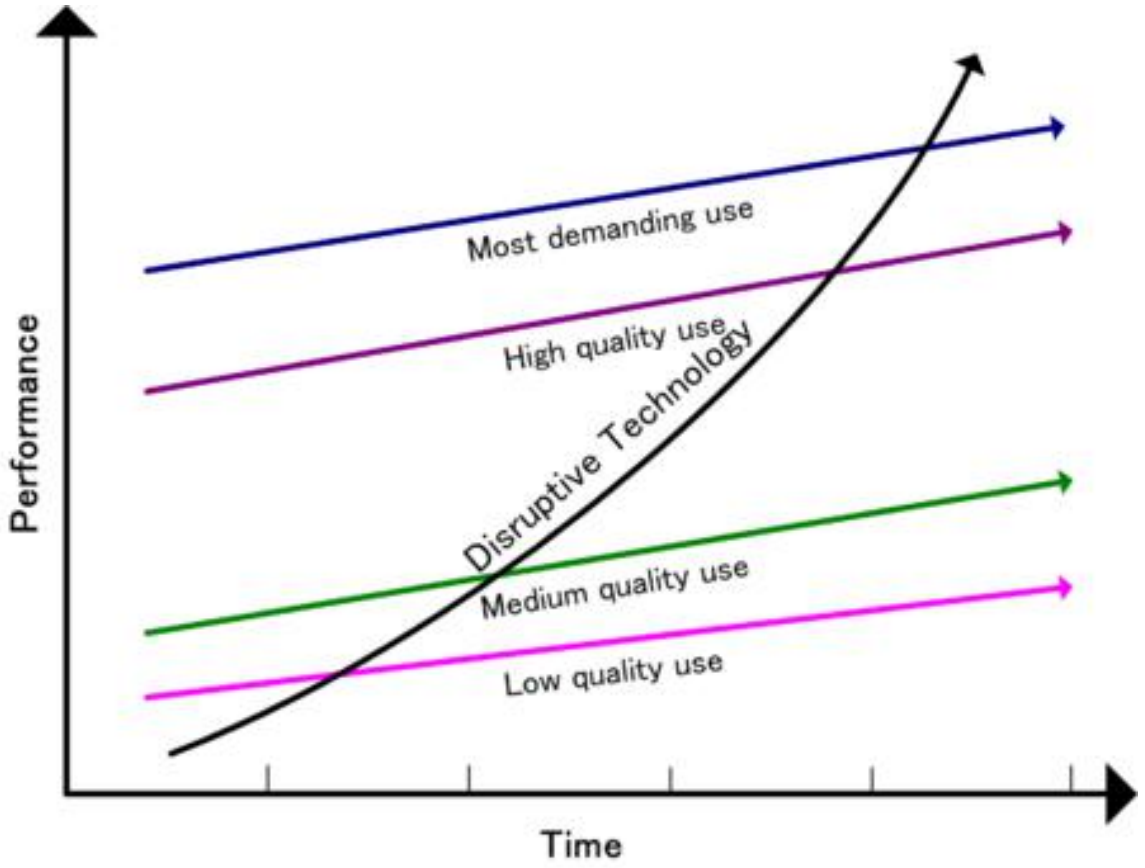
What is a disruptive technology?

Originally defined by Professor Clayton M. Christensen:
“A new technology that unexpectedly displaces an established technology”

A disruptive technology is a new product, service or technology brought into market which is so superior to the current technologies in that market that it deems them obsolete.

Factors:

- Price
- Size
- Practicality
- Technology
- Cost of Production
- Usability


Performance
Most demanding use
High quality use
Disruptive Technology
Medium quality use
Low quality use
Time

Examples of disruptive technology in e-business – The Internet

- Letters – Emails – Instant Chat
- Records – Tapes – CDs – Downloadable Music
- Globe – Google Map
- Research books – search engines
- Dial up internet – Wireless Internet

Examples of disruptive technology in e-business – Word Processing

Christopher Latham Sholes invented first manual type Writer in 1867.

Thomas Edison introduced first electronic typewriter in 1920s.

1964 IBM introduced the first Word Processor Machine (Record/save/edit data)

Over 60 WP systems (Microsoft Word 2007)

Examples of disruptive technologies outside of e-business

Horse and Carriage

Car – early 1800s

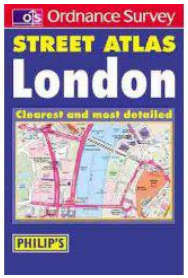
Tape Walkman

MP3 Player

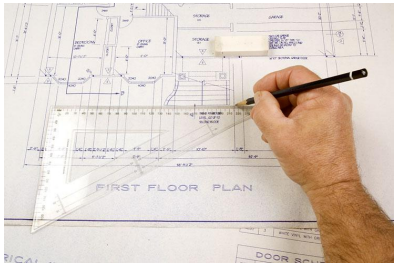
Disruptive Technologies – The generation gap

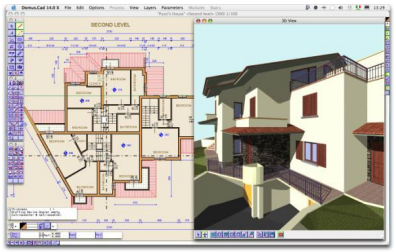
How many of your parents are as up to date with technology as you are?

Example 1: Atlas – Sat Nav



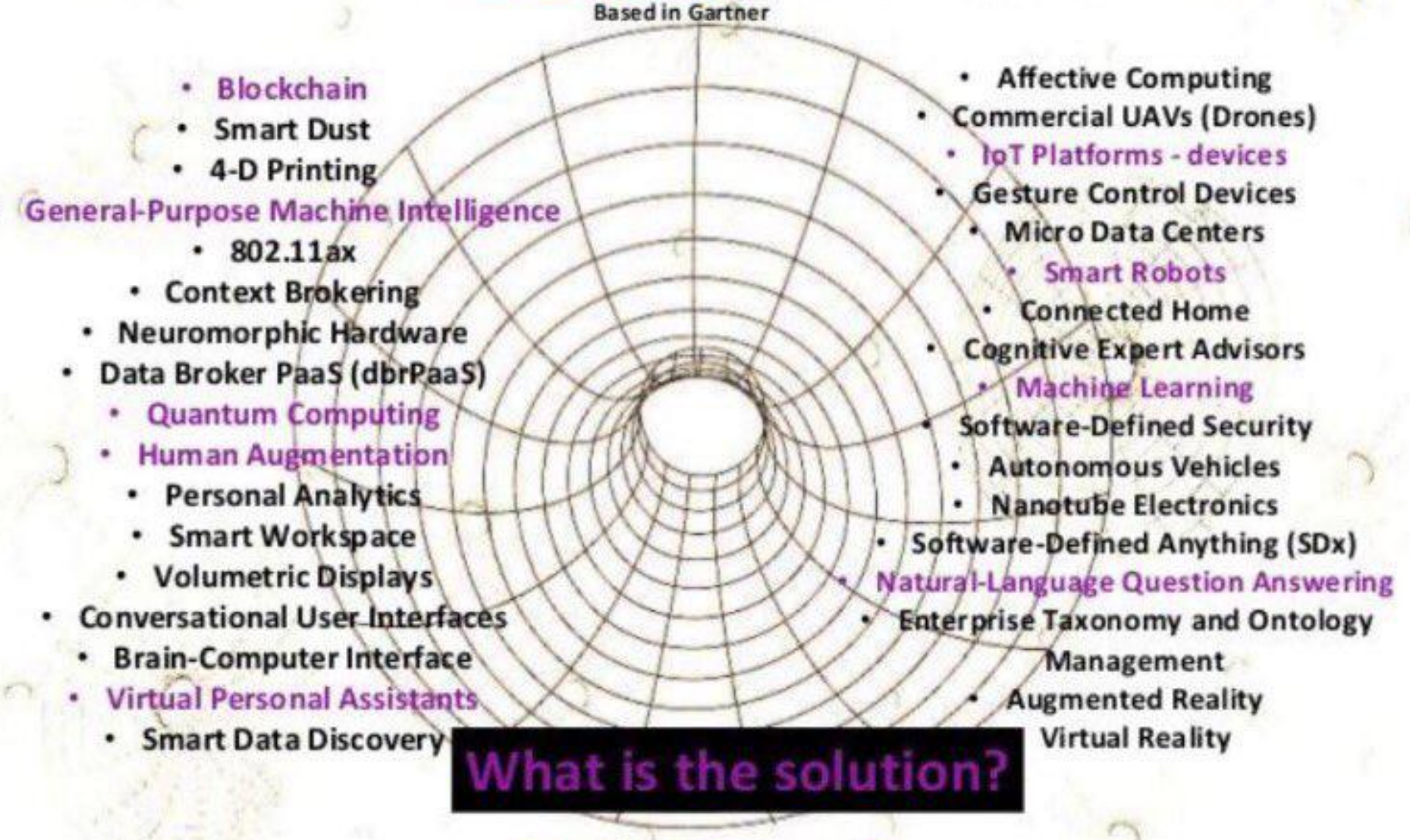
Example 2: Hand design - CAD





34 Most Disruptive Technologies

Based in Gartner



ztudium intelligent Hub

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Positive Implications

- Save Physical space (USB Stick).
- Beneficial effect on environment (Letters, books, carbon footprint).
- Improving choice.
- Improving technology (Easier life).
- Easier Communication.
- Access to more information.
- Independence.

Negative Implications

- Dependence on technology (Less skilled).
- Pollution (Transport, production).
- Disadvantage to older generations.
- Negative effects on traditional companies.
- Negative effects on supplementary goods.
- Social implications:
  - Less face to face contact.
  - More lazy (Obesity).
  - Security risks.
  - Crime (Piracy/theft)

- Most disruptive technologies of future: Google
  - on mobiles in class
- Affective Computing
- IEEE 802.11ax standards

- **What are the Disruptive Technologies in Healthcare ?**