

The Innovator's Dilemma @ IMC

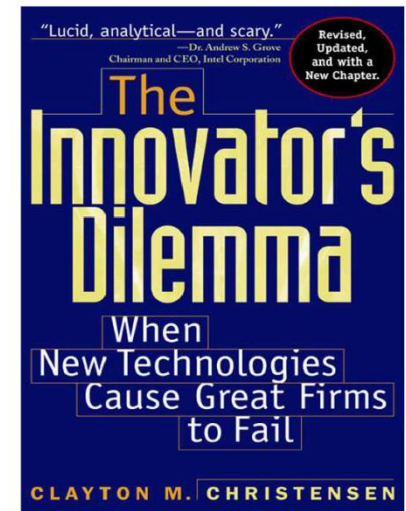
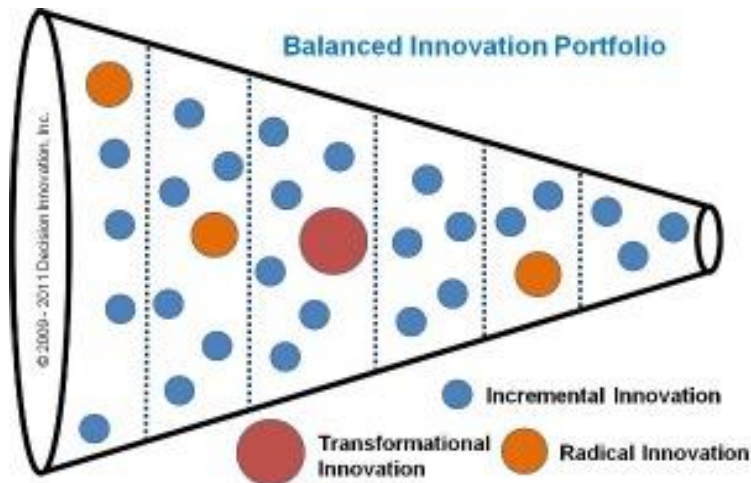
Evolutionary / Revolutionary / Disruptive Innovation

Warning: Dilbert ahead 



Innovation Types

- Evolutionary (Sustained Incremental)
 - Adds new value to markets - in expected ways
- Revolutionary (Sustained Radical)
 - Adds new value to markets - in unexpected ways
- Disruptive (Transformational)
 - Creates new markets – which overtake old ones



Disruptive Innovations (examples)

- IT examples:
 - [Floppy disk](#) -> [Zip drives](#) -> [USB flash drives](#)
 - [Mainframes](#) -> [Minicomputers](#) -> [PCs](#) -> [Handheld computing](#)
 - [Telegraphy](#) -> [Fixed phones](#) -> [Mobile phones](#) -> smartphones
- Other examples:

Established Technology	Disrupting Technology
High street retailing	Online retailing
Sailing ships	SteamBoats
Rail transport	Automobiles
Printed encyclopedias	Wikipedia
Postal mail	Email
Circuit networks	Packet networks

“The market will be very small”

- "I think there is a world market for maybe 5 computers."
 - Attributed to Thomas Watson, chairman of IBM, on seeing the first mainframe computer in 1943.
- “World potential market for copying machines is 5000 at most”
 - IBM, to the eventual founders of Xerox, saying the photocopier had no market large enough to justify production, 1959.
- "computers in the future may have only 1000 vacuum tubes and weigh only 1.5 tons."
 - Popular Mechanics, March 1949.
- "There will be 10 million mobile phone users in 2000 at maximum, predominantly used in cars"
 - McKinsey advice to AT&T which lead them not to further invest in their mobile invention, 1990.

“There will never be a market”

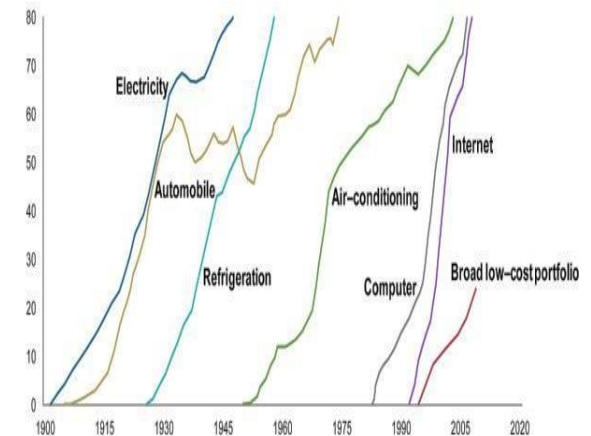
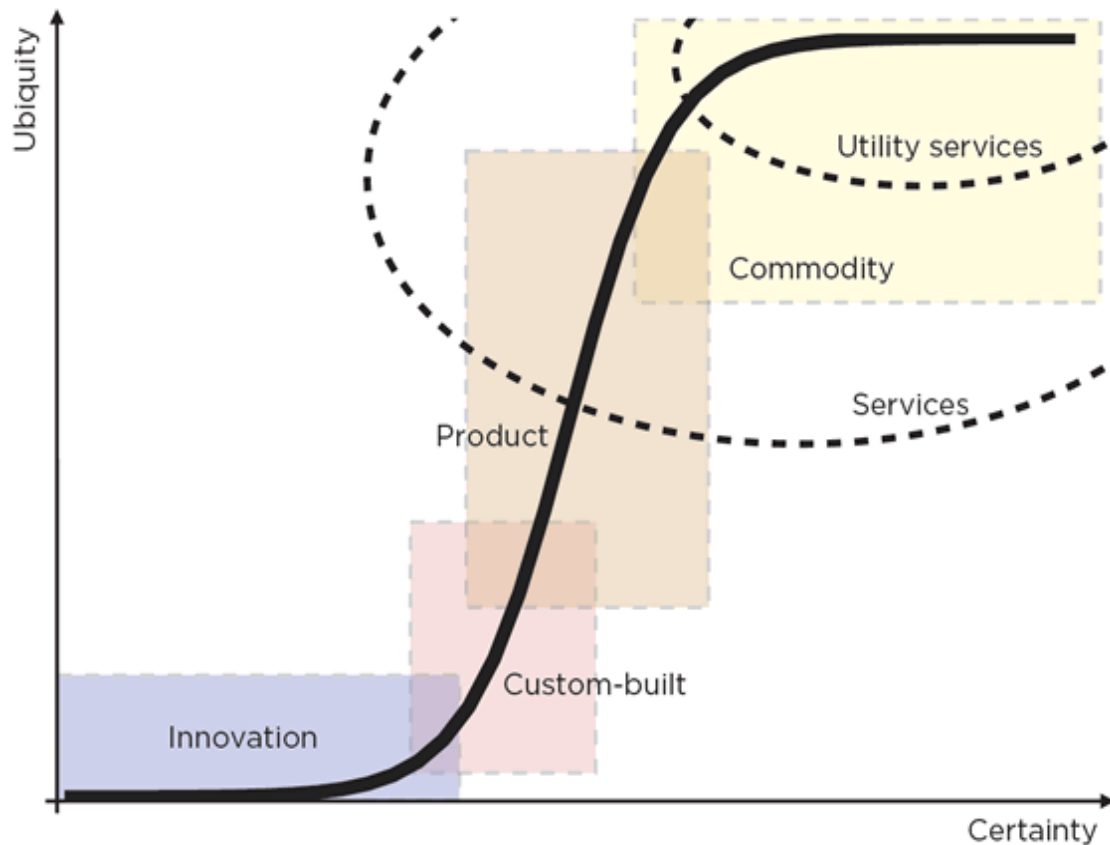
- "No one will need more than 637 kilobytes of memory for a personal computer."
 - Attributed to Bill Gates, 1985.
- "No one will pay good money to get from A to B in one hour by train, when he can ride his horse there in one day for free."
 - King William I of Prussia, on hearing of the invention of trains, 1864.
- "(the telephone) it's a great invention, but who would want to use it anyway?"
 - Rutherford B. Hayes, U.S. President, after a demonstration of Alexander Bell's telephone, 1876.

Technology Adoption Curve



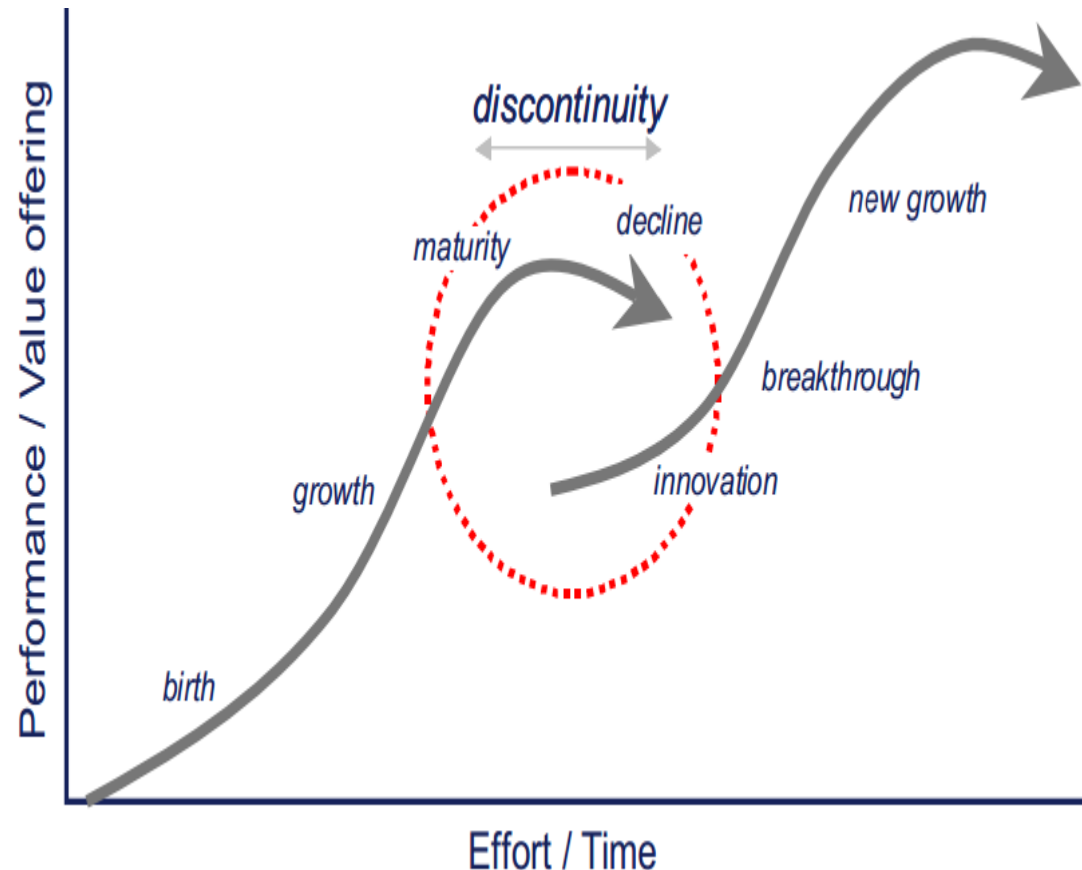
Innovation Adoption

- POC -> Prototype -> Pilot -> Products -> Mass production
- As technology matures, users accumulate in a “S”-curve



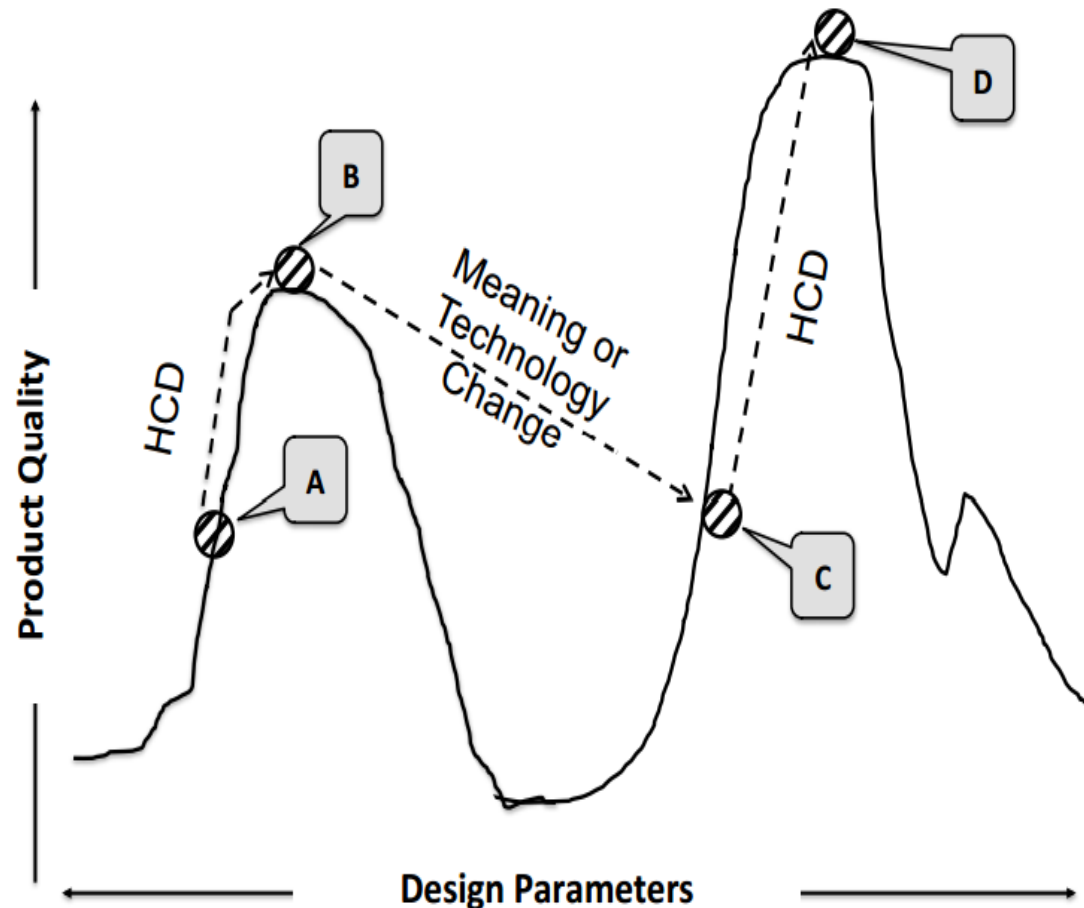
Innovation Jump

- At first, fresh technologies may offer less overall value...
- ... but they have **much** higher upside potential!



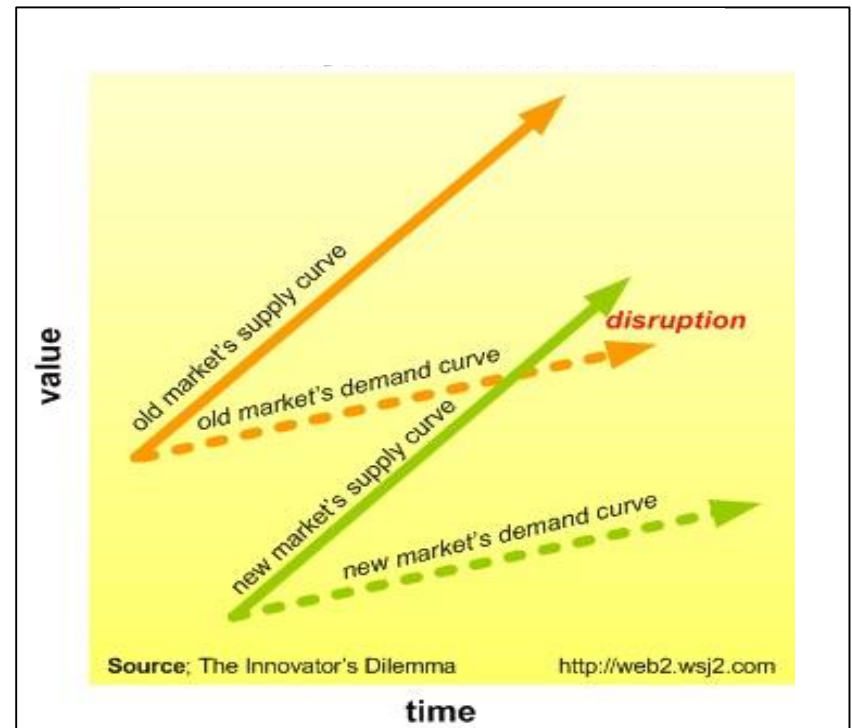
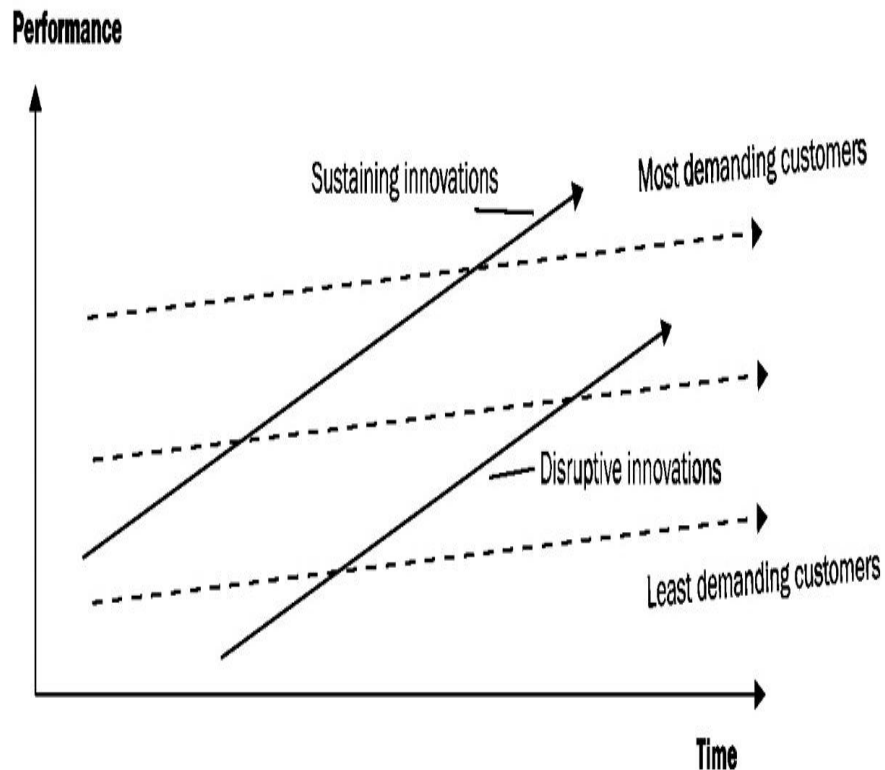
Hill climbing Problem

- Congratulations, you have found your local maxima ...
- ... but are you willing to do the leap of faith for even higher ones?

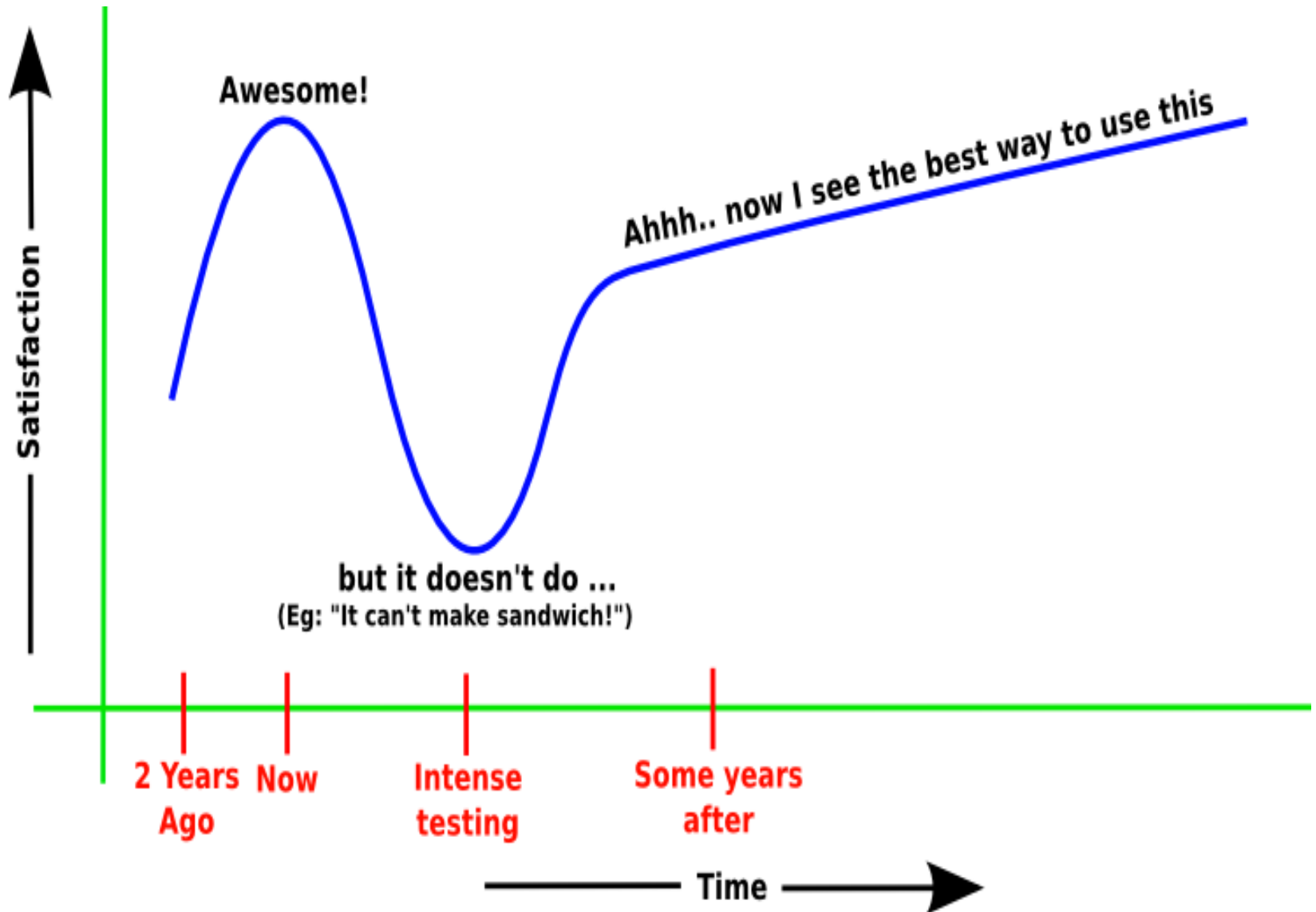


Supply and Demand dynamics

- A disruptive technology gains new customers...
- ... because it targets first the least demanding customers



Innovation hype cycle



Breakthrough Process

