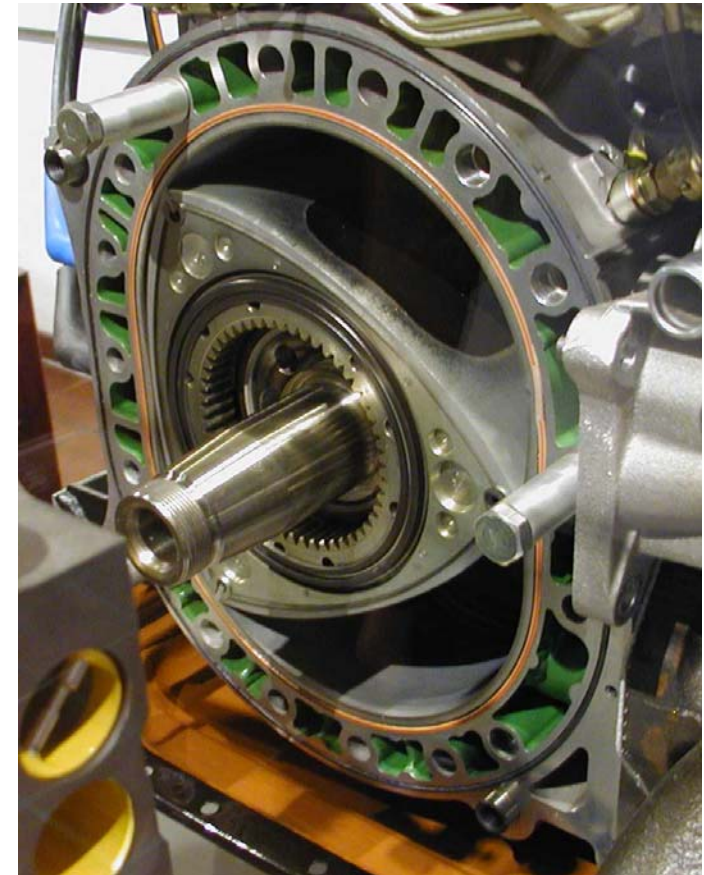
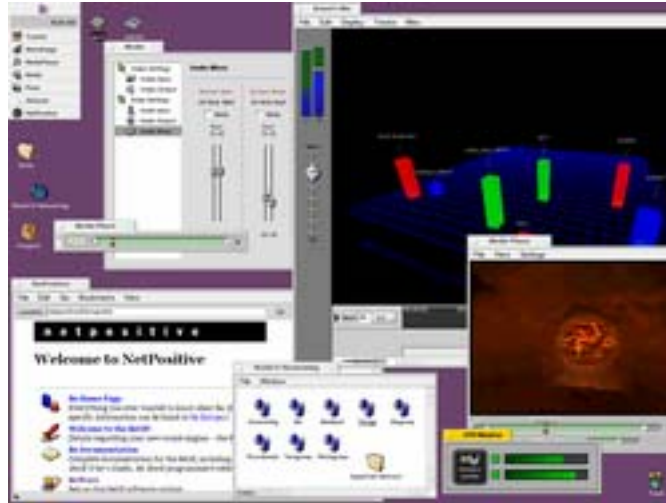


Disruptive Technologies, Open Source, and Mobile

Espen Andersen

Why doesn't the best technology win?



How does technology evolution work, anyway?

Innovation And Technology Evolution Is Anything but Simple

- Technology evolution is a process of evolution and revolution, with many competing designs in the period immediately after the revolution. A dominant design eventually surfaces, always lagging the technology frontier (Abernathy & Utterback; Utterback & Suarez). When the dominating design is established, the nature of competition changes from innovation to performance.
- The dominant company in one technology generation will resist moving to the new generation (Foster; Christensen) through pursuing innovation and productivity increases in its current technology (Utterback)
- The process is multi-leveled: A smooth aggregate growth in capacity may mask revolutions at component level (Iansiti and Khanna). These revolutions may be competence-destroying or competence-enhancing

What is a disruptive technology, anyway?

Christensen, Clayton M. (1997). *The Innovator's Dilemma: Why New Technologies Cause Great Firms to Fail*. Boston: Harvard Business School Press.

- Your best customers don't want it
and
- It gives poorer performance
and
- If you did it, you would lose money

Core attribute: The incumbent leader is the least suited to adopt it

Disruptions hit you where you don't care

1

The screenshot shows the Pepper website (pepper.no) with a recipe for 'Ovnsbakt laksefilet med rucola og vinaigrette' dated 26.06.2003. The recipe includes ingredients like salmon, rucola, oil, and vinegar, and a list of other recipes in the same category. A Google search bar is overlaid on the bottom left of the page.

pepper (PEPPER.NET.NO)

Delikatesser i Utsøkt - Dagbladet 25.11.04

hjem - Peppernet - Oppskrifter - Sjømat oversikt - Ovnsbakt laksefilet med rucola og vinaigrette

Akademiet
Internasjonalt
Aktuelt
Oppskrifter
Menyer
Vinspalten

Ovnsbakt laksefilet med rucola og vinaigrette

26.06.2003

Tid ca 20 min

Til 4 porsjoner

ca 600 gram laksefilet med skinn
1 pk rucolasalat
4 ss olje
1 ss rødvinseddik/vineddik
salt og pepper
(evt. 1 dl hvitvin)

av varme, ca 100°C. Gni inn laksefileten med salt. Ta en kjele
asser til fileten (den kan evt. deles opp) og kok opp 2 dl vann,
og 1 dl vin. Ha i fisken og legg på lokket. Sett i stekeovnen i ca 15
n og dra av skinnen. Hvis skinnen ikke løsner lett, er ikke fisken
søk rucolablādene. Rør sammen olje og eddik og vend
vinaigretten. Dryss salt og nykværnet svart pepper over. Rucola
kryddersmak i seg selv at det ikke er strengt nødvendig med eddik.
olje er egentlig nok. Legg en eng av rucola salat plasser
opp, pynt evt. med finhakket løk og litt salat på toppen.

I samme kategori:

- Abortårn med wonton
- Ål med speilegg og teriyakisaus
- Asiatisk fiskegryte med teriyakisaus
- Avocado og reker
- Bacalao med dampet torsk
- Baguette med tunfisk
- Baguetteskalder med røkelaks
- Bakt gjedde med sesamfrø
- Bakt harr med asparges og sopp
- Bakt kveite gorgonzola
- Bakt laks
- Bakt laks med skinke
- Bakt steinbit med sydens grønnsaker
- Bakt torsk
- Bakt torsk med bakte grønnsaker

Google™

Web Images Groups News Froogle Local Desktop more »

laks rucola pepper

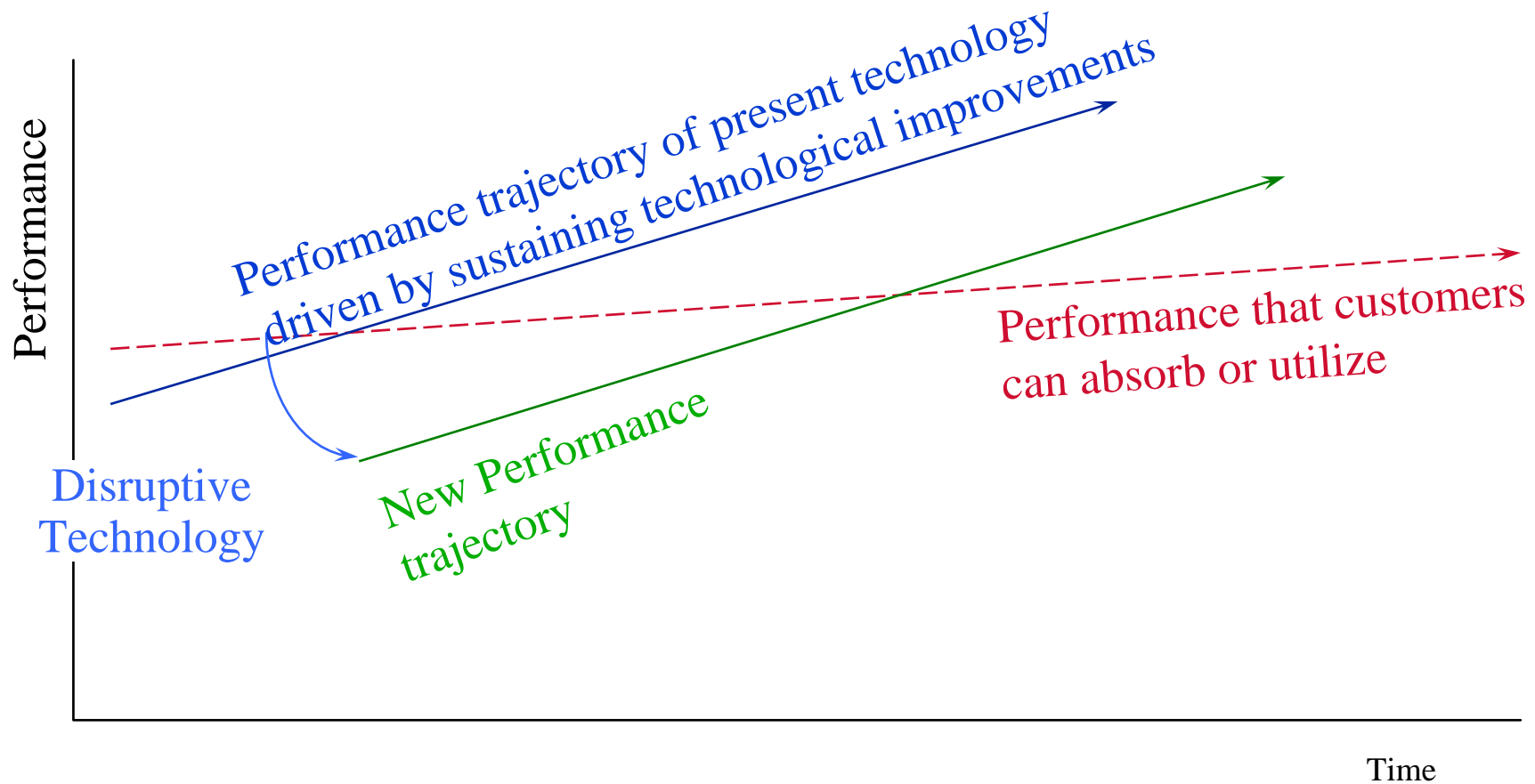
Google Search I'm Feeling Lucky

Advanced Search Preferences Language Tools

Finn

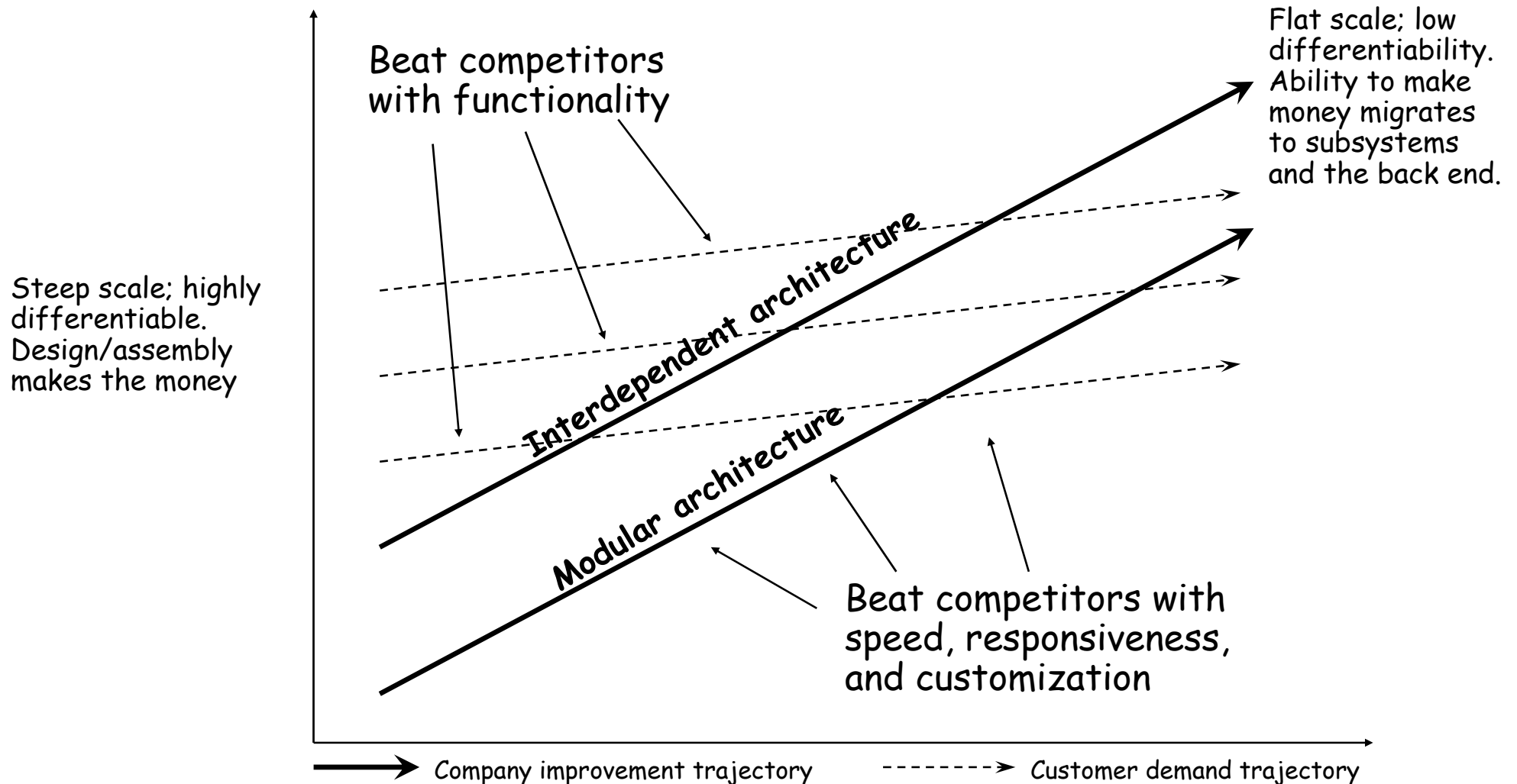
Quality overshoot

Christensen, Clayton M. (1997). *The Innovator's Dilemma: Why New Technologies Cause Great Firms to Fail*. Boston: Harvard Business School Press.



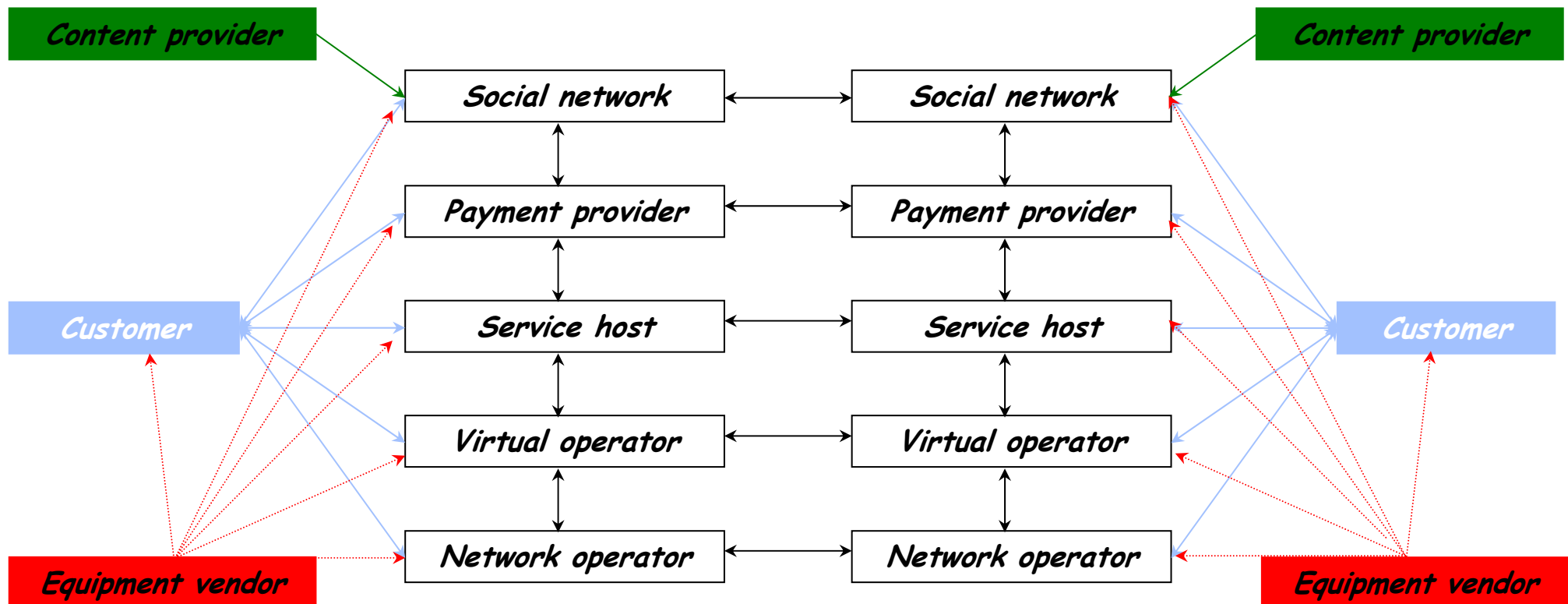
Value Chain Evolution Theory

Christensen, Clayton M. et al (2004). *Seeing What's Next: Using the theories of innovation to predict industry change*. Boston: Harvard Business School Press.



The mobile information services market has services linked horizontally and vertically

Adapted from: Andersen, E. and Ø. Fjeldstad (2003). "Understanding inter-firm relations in mediation industries with special reference to the Nordic Mobile Communication Industry." *Industrial Marketing Management* 32: 397-408.



Each layer has a link to the customer - or at least would want to

Is this a
phone
or a
platform?



The evolution of functionality?

- Problem
- Product
- Platform
- Protocol

Some propositions

- Open source means little in telecommunications, except for the provision of building blocks for new services
- Everything needs a business model in the end
- Open source requires identifiable customers
- The end user does not care about whether the service is open or not (except for DRM, and then largely about convenience)
- Software vendors are weapons manufacturers: They need to find unruly areas with many local warlords
 - Opera: OS → Handset maker → Operator

Specific functionality is what it is all about



- **always on:** The device does not need to initiate the session.
- **location awareness:** The device knows where it is.
- **peer awareness:** The device knows where other, similar devices are.
- **information capture:** The device can capture information, such as bar codes.
- **authentication:** The device can securely identify its owner or user.

Source: E. Andersen, *mB: Mobile business*, Concours Group 2001

The personal architecture is where the competition will be played out



Source: E. Andersen, *mB: Mobile business*, Concours Group 2001

How do you make a technology disruptive?

- Figure out what its **unique** features are...
 - Good ones
 - Bad ones
- Find markets where the bad features are good features
- Find markets that are overserved by current technology
- Find markets that do not consume what is provided by the technology

How do you sell a slow car that can't go far and has no passenger space?



www.espen.com
www.tversover.com
www.appliedabstractions.com

Thank you!



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