Digital disruption calls for new strategies.

Niels Bjørn-Andersen
Professor Copenhagen Business School
60% of *Fortune 500* companies in 2000 did not make it on the list in 2015.
Michelle Phan
**Technological Megatrends**

- **Smart machines and artificial intelligence is becoming alive.**
- **Cybercrime has become an industry – increased need for IT security.**
- **Social media is exploding.**
- **The mobile unit is the main channel and is rapidly developing.**
- **There’s a radical shift toward OTT and on-demand.**
- **All things are interconnected and online.**
- **Massive data avails huge possibilities for analysis.**
- **Everything becomes digitalized and cloud-based.**
Blockchain

- Concept: shared ledger
  - Virtual
  - Decentralized
  - Bookkeeping system

- Examples
  - Bitcoin 😖
  - But in the near future
    - Mortgages
    - Passports
    - Gun licenses
Dematerialization
Digital Disruption Trends: A Wake-Up Call

- Trends
- Response
- Models
- Drivers
Photography
Music
Movies

In February 2008, Blockbuster assessed the risk of disruption from Netflix. Management decided there was no immediate risk of disruption.
Netflix versus Blockbuster

Revenue (Billions)

- Netflix
- Blockbuster

BANKRUPT
$2.2B

2004 2005 2006 2007 2008 2009 2010
Optical Lens Shopping
EHang one person drone carry 220 pounds
Banking of the Future
Loans
The Alibaba Story
Facts on Alibaba

• On 11/11 2016 revenue was $ 17,8 billion
• US Black Friday was $ 3,4 billion
• 100 chartered planes, 300 distribution centers, 800.000 part time staff
• All delivered in 3 days
Digital Disruption Drivers

- trends
- models
- response
- drivers
The Speed of Change

Source: Digital Transformation, Jo Coudron
Speed of disruption

- Filling a stadium with water
- Water drips from a hose 1 drop/min but doubling every minute starting 12.00
- When will stadium be full?

Filled completely at 12.49
New Customer

- Generation Z
Gen Z = Extremely Connected

- Fear
  - Off the network
  - No Wi-Fi
- At ease when:
  - Full battery
  - Five bars
- Constantly sharing:
  - We feed the network
Instant Gratification

- Smartphone + app
- Anything is on the tip of your fingers
  - Swipe
  - Click
- Example
  - Uber
Growing Concern About Climate
Content Shock

What Happens Online in 60 Seconds?
Managing Content Shock in 2016

- YouTube: hours of video uploaded
- Emails sent
- WhatsApp messages sent
- Facebook posts
- WordPress posts
- Google searches
- Twitter tweets
- Instagram photos uploaded

Bogazici University
Department of Management Information Systems 10th May 2017
“This is not an era of change, but a change of era. (Rotmans, 2014)
Digital Disruption Models

- Trends
- Response
- Drivers
- Models
Network Terminology

- **Centralized**
  - Client-server model
  - Only 1 node
  - You always need to pass the center

- **Decentralized**
  - You can bypass the center
  - Several nodes

- **Distributed**
  - No nodes anymore

- **Question:**
  - Are the decentralized or distributed models relevant in your industry?
Business Terminology

- Centralized
  - McDonald’s decides
  - US military
  - Catholic church
- Decentralized
  - Sapa = aluminum company
  - Colruyt Group
    - Dreambaby
- Distributed (P2P)
  - Wikipedia
  - Wikispeed
  - Airbnb
  - Tapazz (car rental)
Free Model

• Flagships
  – Google
  – Facebook
  – Twitter
  – Instagram

• Where do they get the money?
  – Advertising
Freemium Model

- This concept is based on
  - Free
  - Premium
Membership Model

- **Music**
  - You don’t buy CDs
  - You “rent” streaming music
    - Spotify
    - iTunes
    - Deezer

- **Videos**
  - Netflix

- **Data**
  - Dropbox

- **Software**
  - Office 365
Affiliate Marketing

- Social selling
- Affiliate marketing
  - Bloggers
Create Your Digital Transformation Vision

Digital Transformation Modeling

- Spot and understand the dynamics of digital disruption
- Analyse the impact on your industry and business
- Create a future vision and a transformation strategy
- Create a Digital Agenda that gets you there.

https://www.youtube.com/watch?v=8wGq0e_n3n4

Source: Digital Transformation, Jo Coudron
Digital Customer

Digital Leadership

Digital Technology

Digital Business

AHEAD OF TIME
One of Google's most famous management philosophies is something called "20% time."

Founders Larry Page and Sergey Brin highlighted the idea in their 2004 IPO letter:

"We encourage our employees, in addition to their regular projects, to spend 20% of their time working on what they think will most benefit Google," they wrote. "This empowers them to be more creative and innovative. Many of our significant advances have happened in this manner."

Huge 20% products include the development Google News, Gmail, and even AdSense.
New World of Work

- Example for Microsoft employees
- In company 10h-14h --- at home (Skype business + Office 365 + ...)
Questions?
Comments?

Break
Have you and your organization embraced digitalization??
Digital Transformation

The use of digital technology to radically improve the performance and/or reach of any company or organization
Leading Digital Transformation

Dr. George Westerman
Research Scientist
MIT Initiative on the Digital Economy
georgew@mit.edu, @gwesterman
The DNA of Digital Masters

The “What”
Customer experience
Operational processes
Business models

The “How”
Vision
Engagement
Governance
Technology Leadership

Digital Capability
Leadership Capability

© 2015 George Westerman
The DNA of Digital Masters

- Fashionistas
- Digital Masters
- Beginners
- Conservatives

© 2015 George Westerman
Digital Masters Outperform Their Peers

**REVENUE GENERATION**

- Digital Capability
  - +6%
  - -4%

- Leadership Capability
  - +9%
  - -10%

**PROFITABILITY**

- Digital Capability
  - -11%
  - -24%

- Leadership Capability
  - +26%
  - +9%

Note: Chart shows average 2012 performance difference for firms in each quadrant vs. average of all large public firms in the same industry for the 184 publicly-traded companies in our sample.
The DNA of Digital Masters

Innovation/Digitalisation

Keeping the lights on

© 2015 George Westerman
Digitalization and IT governance in keeping the lights on companies (Coop and Maersk Line)
Coop – a Group of strong brands

Largest retailer of fast moving consumer goods in Denmark.

40,000 employees and a turnover of $5 billion

Coop Danmark A/S owned by 1.3 million members
“A couple of snapshots” in infrastructure

Coop IT undertakes operation and development of Coop’s IT systems

- Round-the-clock operation 365 days a year
- Helpdesk for stores, warehouses and Head office
- Business Intelligence: DataWarehouse (all goods – all stores – every day)
- EDI with over 900 suppliers
- Webshops: Coop.dk and Irma.dk
- Store, salary, accounting, logistics, HR, CRM and goods systems
- Telephone system and network

<table>
<thead>
<tr>
<th>Coop IT</th>
<th>1,200 stores</th>
<th>&gt;5,000 POS-terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>140 employees</td>
<td>8 distribution centers</td>
<td>&gt;5,000 PCs</td>
</tr>
<tr>
<td></td>
<td>Head Office</td>
<td>&gt;2,000 servers</td>
</tr>
</tbody>
</table>
410+ application platforms and components

Shopsystems
Logistic
Assortment
Finance & HR
CDW
CRM
Portals og Web
(Trading)
Other
398 data models/databases
Technology landscape
System landscape ....

... more then 55.000 software programs and objects
... and too many different technologies
Strategy 615
... the goal and ambition

Coop IT will deliver 6 times the business value per dollar spent on operating the IT landscape as well as delivering a 100% stable IT operation in 2015

and

Coop IT will deliver on the business needs of Coop with readiness, meet expectation and keep our promises on time – every time!
... the reality and consequences

To establish the infrastructure, COOP needs to invest $300 million – more than profit in the last five years together

CIO René Munk-Nissen confronted CEO Peter Høgsted with this requirement in December of 2015 – otherwise he could not take the responsibility

On 3rd December 2015 René drove home from COOP for the last time

In one of the shops in Kvickly last Saturday, it took 2 minutes to serve me
Conservative
IT governance challenge in Maersk
Where are you placing your bets

**The Spend Today**
- 27%
- 73%

**Strategic Spending to Improve the Company**
- 50%

**Maintaining Legacy IT Environment**
- 50%

**The Spend as It Could Be**
At the same time achieving almost a 50/50 split between Run and Build
Digitalization and IT governance in leading digital companies (Hummel and Danske Spil)
Fasionista
IT governance challenge in Hummel
Historical development

Ecommerce Concerns & Strategic Priorities

- Global website
- Global Facebook page
- Digital Communication Matrix
- Digital governance

2010
Head of Digital hired

2011
Aligning the Online Branding Globally:

2012
Enhancing the Ecommerce Support for B2B Partners:
- B2B ecommerce platform
- B2C ecommerce integration
- Brand Button
- Store Finder

2013
Building the Omnichannel Customer Community:
- Integrated Global Campaign Calendar
- Hummel “Happy Moments”
- Sport Sponsorship Mobile game
- Social outreach through Hummel Karma

2014
Complementing the Physical Store Experience:
- Shop-in-Shop
- Holograms & Virtual Walls
- QR codes
- Mobile Instagram uploads
- Monobrand stores
Hummel multi-channel strategy 2013

- B2B platform
- Virtual universe
- B2C platform
- E-shop in shop
- Social & S-commerce
- Mobile
- Gaming
- (online) retailers

Brands and platforms mentioned:
- Amazon
- BOUTIQUES.com
- LazyLazy.com
- osos
- Facebook
- YouTube
- Polyvore
- Sneakerpedia
- LOOKBOOK.nu
- SmartGuy.DK
- Sportmaster
- osos
- Japan
- Holland
- XBOX
- Wii
- Co-creation
What happened?

• In summer of 2015, we celebrated the PhD graduation of Rina Hansen, and the CEO of Hummel Søren Skriver asked me to find a good Turkish PhD student – I did, but he did not follow up??
• In November of 2015, Rina Hansen left Hummel, because the new marketing director did not appreciate her work, and wanted to get ‘back to basics’ (focus on the ERP-system)
• In spring of 2016, the CEO Søren Skriver, who’s main strategy was to develop and grow the Turkish market, was fired for theft and embezzlement. He got ten minutes to leave his desk
• In April of 2017, Hummel has got a new CEO, who might get Hummel back on the digital track
1. How many of you thought that Danske Spil would survive loosing the monopoly in 2012?
2. How important is IT for Danske Spil?
A few facts

- Danske Spil was owned by the state
- They had about 80% of market due to its monopoly (many gamers were playing illegally on the Internet)
- Total staff was around 250
- 70 IT staff for development and keeping the lights on
Annual statement

• Danske Spil main figures (USD - $):
  – Gross revenue 700
  – State taxes 100
  – Dealer fees 100
  – Other fees 30
  – Administration 130
  – Profit 340
  – Tax on profit 80
  – Result 260

• Societal profit of > 50% = 440
Perception of CIO and IT - before
Danske Spil IT governance insights

- Søren Weeke could **not extend or further develop** existing systems to meet new demands
- They needed a new platform, a new **digital strategy, and a heap of new digital games**, some of which could take 500 person years to develop! How?
- Had to start with **needs defined by marketing and sales** – Market and business basically needed that newest and most exciting games – the best in the world! **How??**
- Hybrid model with **sourcing** games from global leaders and make these available on white labeling basis to Danish customers
Conclusion
Niels Bjørn Christiansen, CEO of Danfoss, the second largest industrial group in Denmark, decided not to for achieving record profit. Instead, a large part of the surplus is invested in bringing Danfoss into digital leadership.

Berlingske Business 25th August 2016 at 16.40
Bee’s do it (Rockwoll)

Rockwoll (a 100 year old and very traditional manufacturer of insulation material – yawn!) have just completed a 5 month program on digitalization and innovation (especially focusing on customer value) with ‘Digital Ventures’ in LA. Five employees including CIO participated.

All members of the board of directors (including CEO Jens Birgersson) spent 7 full days in US
Even educated fleas do it (NOVO)

“Novo has to go through a digital transformation. However, I don’t think, I would be the best person to lead Novo through that digital transformation”

Lars Rebien
CEO Novo until end of 2016
Statement at Management Conference August 2016

Lars Rebien was chosen as the worlds best performing CEO in 2015 and 2016
Harvard Business Review

But left the role of CEO at end of 2016 to Lars Fruergaard Jorgensen (former CIO)
Conclusion

• Everybody needs a digitalization strategy
• Extremely large difference between organizations
• Do we have the adequate digital technical capabilities to fence off disruption from others?
• Do we have the adequate digital leadership capabilities to fence off disruption from others?
• Do we have the capabilities to disrupt others?
• How do we provide better value to our customers and how do we expropriate this value