



Goethe University - Mobile Business

From Idea to Digital Business



13th December 2017 - Andreas Nicklas



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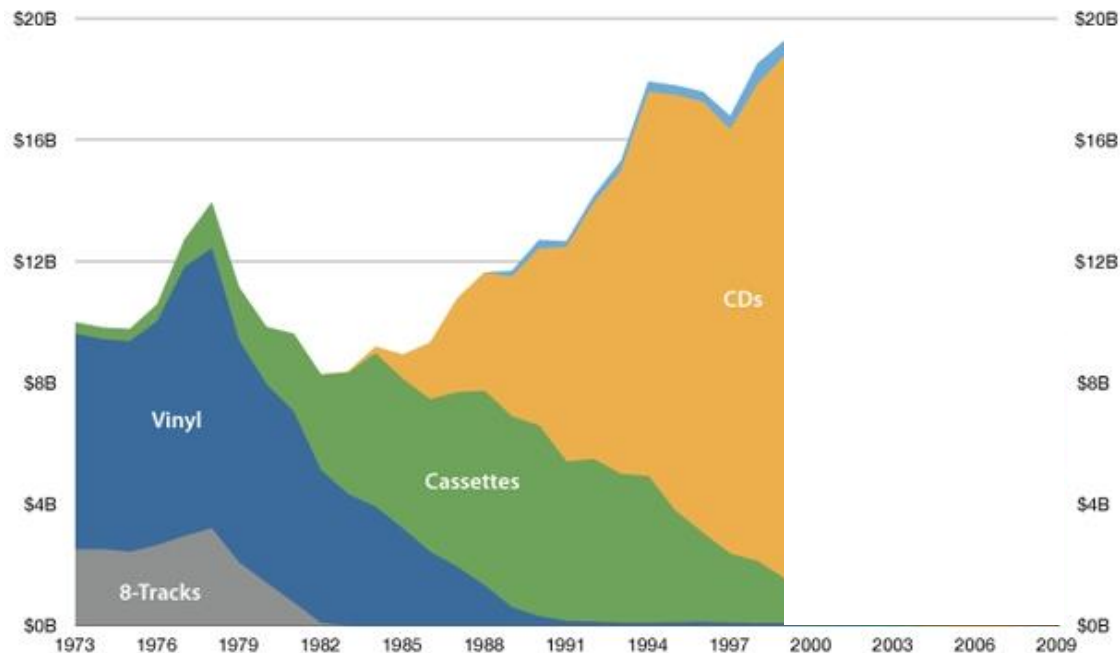
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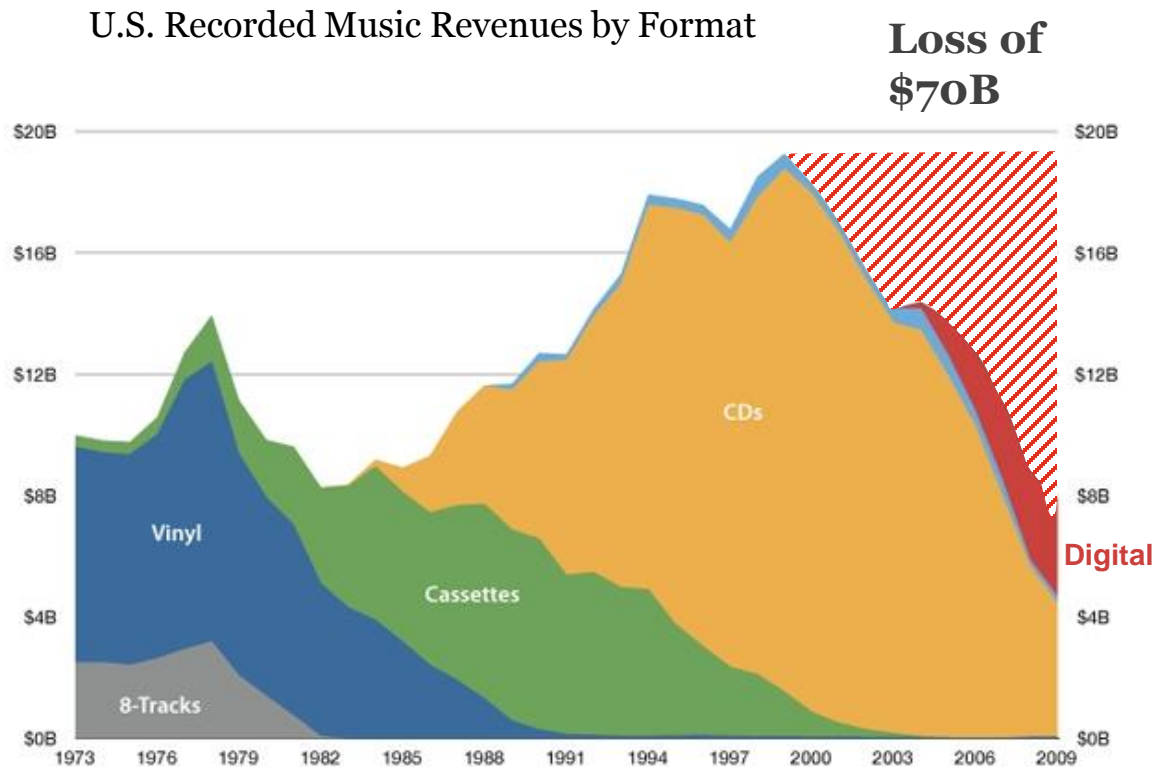
What can we learn
from the music
industry?

U.S. Recorded Music Revenues by Format



Source: Recording Industry Association of America

What can we learn
from the music
industry?



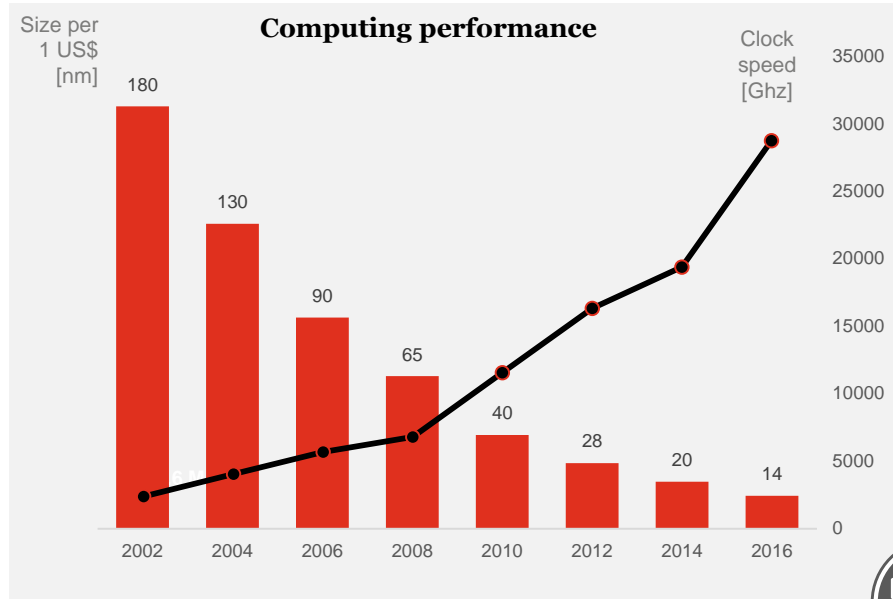
Source: Recording Industry Association of America

e_x

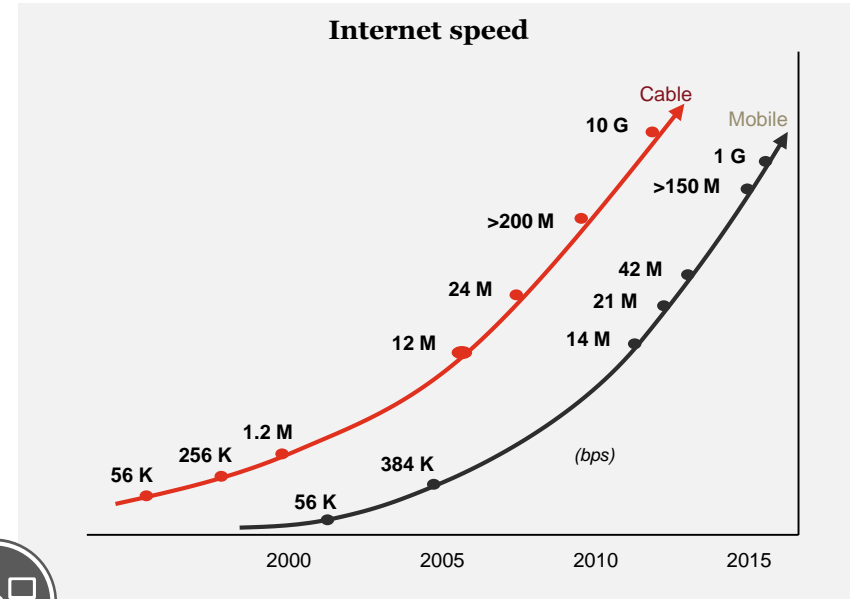


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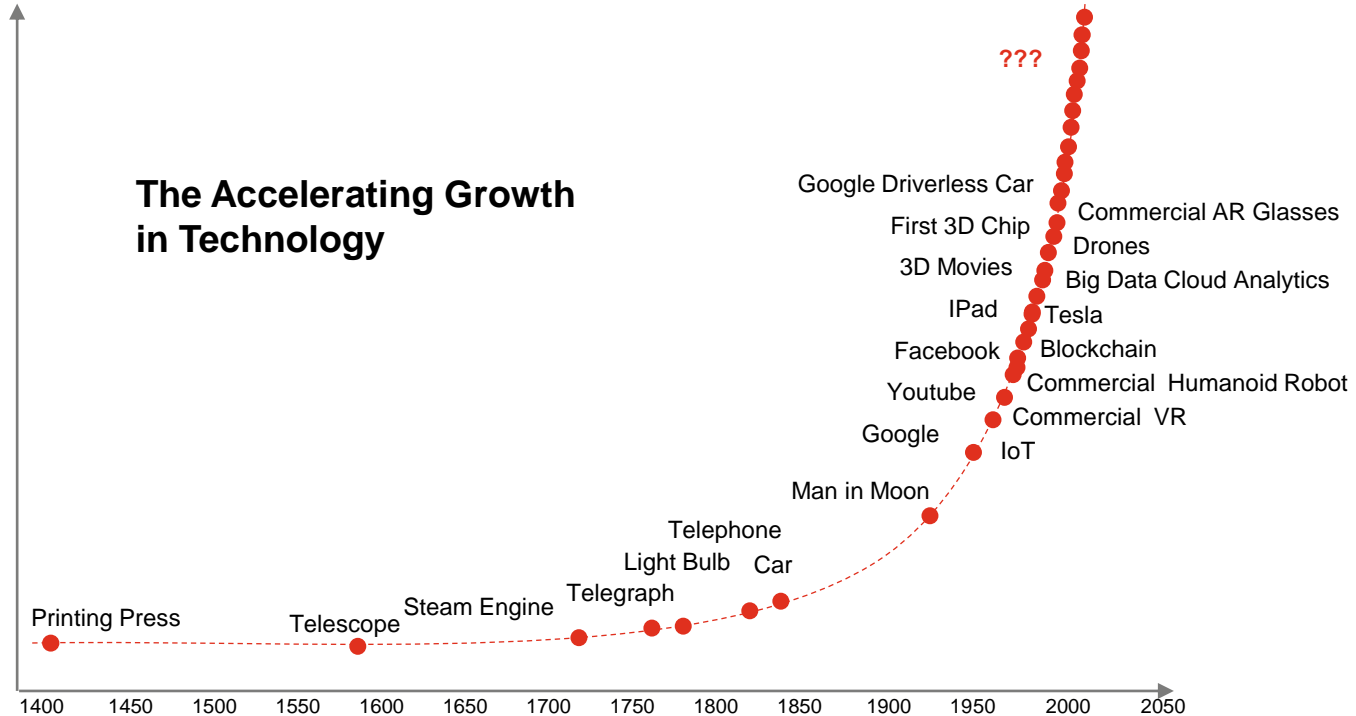
Computing performance and internet speed are advancing exponentially



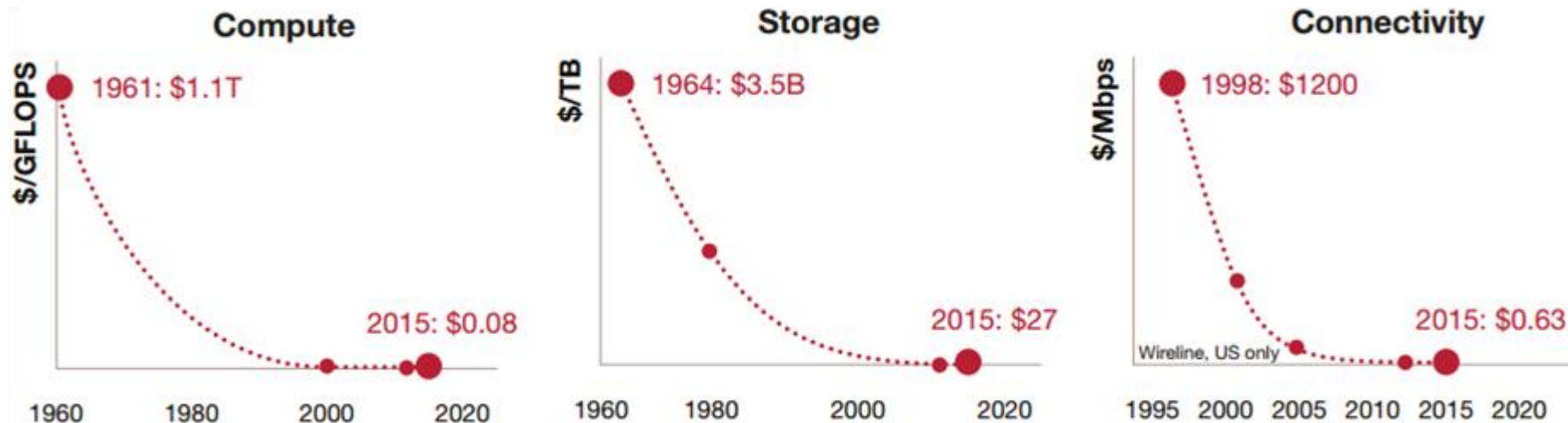
Source: Linley Group, T-Mobile



The number of new technologies is accelerating

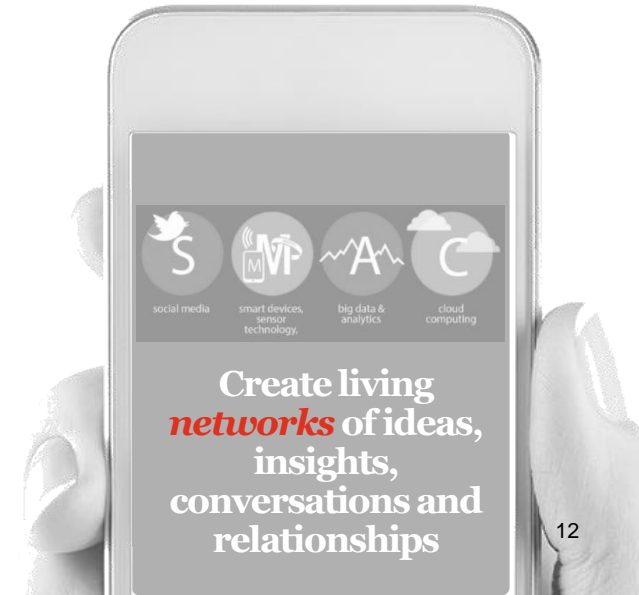
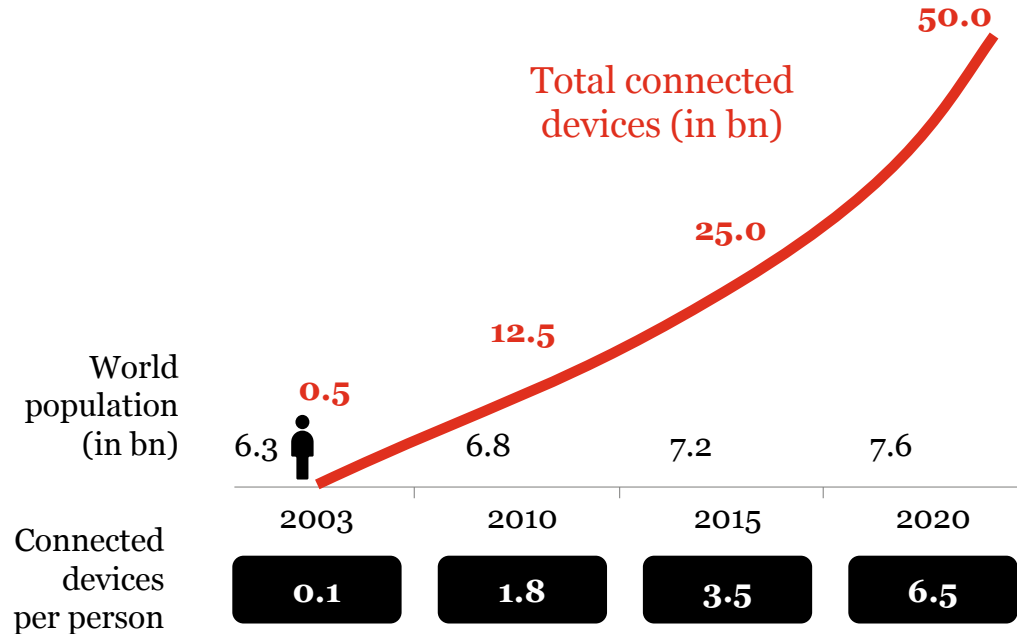


Costs for access to technologies are falling dramatically



Technology connects everything with everything and everyone with everyone, anytime, anywhere

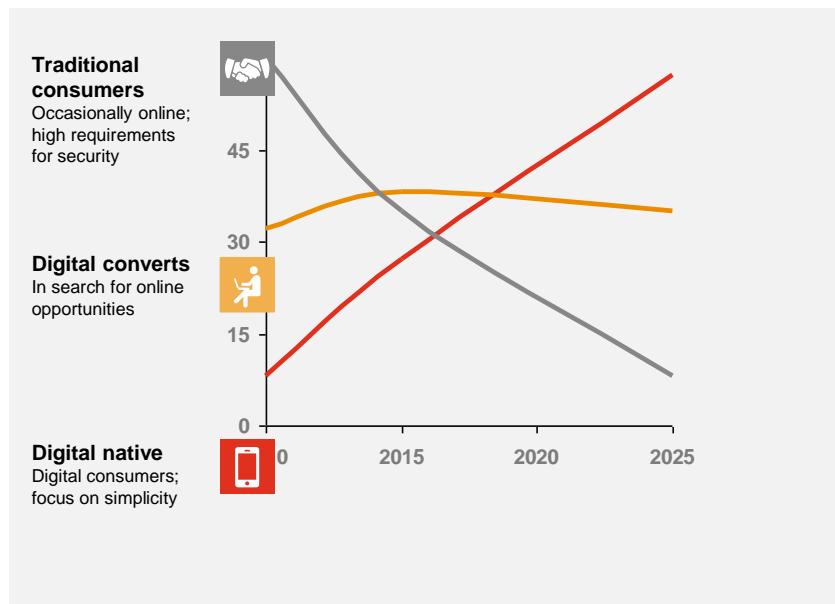
With global average of >3 connected devices per person as of today, digital consumption is the new normal



Consumers are changing – digital native is about to become the new normal

Digital natives will be the largest consumer segment by 2017

Percentage share of adult population



Digital native

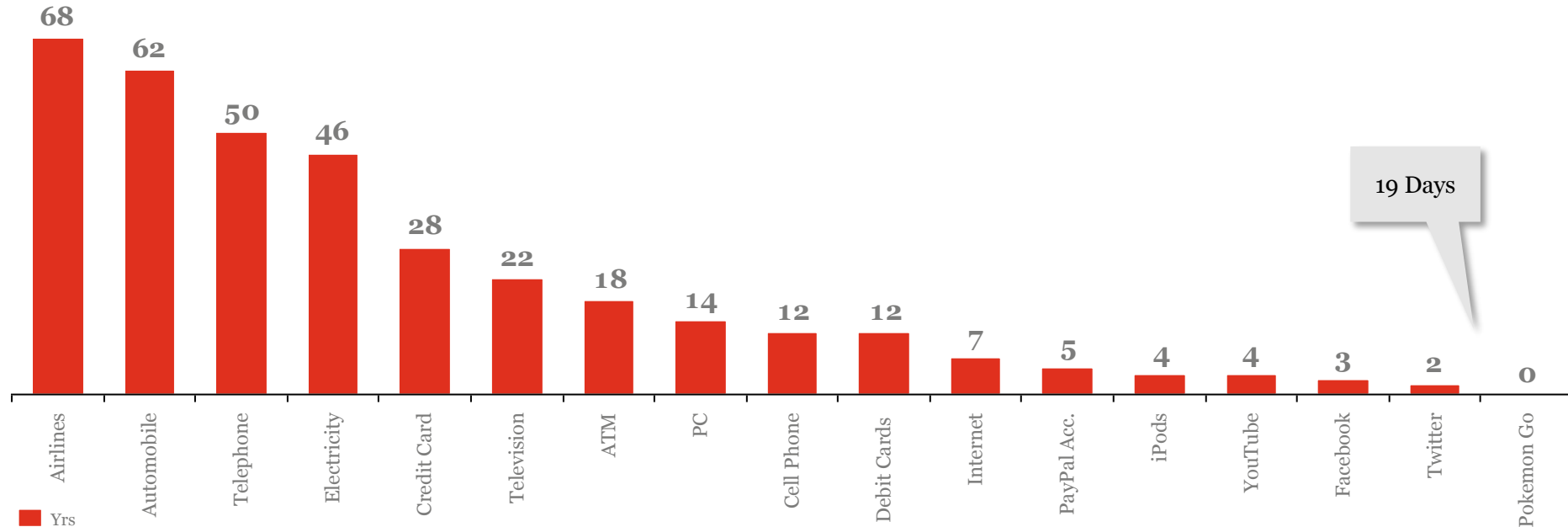


Source: PwC "Profitable growth in the digital age" (2013); amended by Strategy&

PwC's Digital Services

The speed of adaption new products and technologies has substantially increased over the past years – the time is running...

Number of years it took for each product to gain 50 million users:



■ Yrs

Source: LinkedIn

PwC's Digital Services

Rise in global integration



e_x



D_x

Rise in complexity



complicatedness



complexity





Complicatedness

- Demountable structures
- Mechanically determined
- Stable relationships
- Linear behavior
- Predictable
- Sum of the items



Complexity

- Variety of independent elements
- Spontaneous / unstable relationships
- Differentiates to the environment
- Internal and external Interactions
- Adaptation to the environment
- Self organized
- Nonlinear behavior
- Emergent properties

The Popcorn Effect





The Art and Science of Shoveling

Taylor's legacy

Number of Laborers

At. ton per man per day

At. earnings per man per day

At. Cost per ton

16

\$1.15

0.072

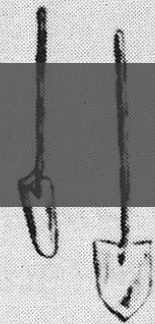
59

\$1.88

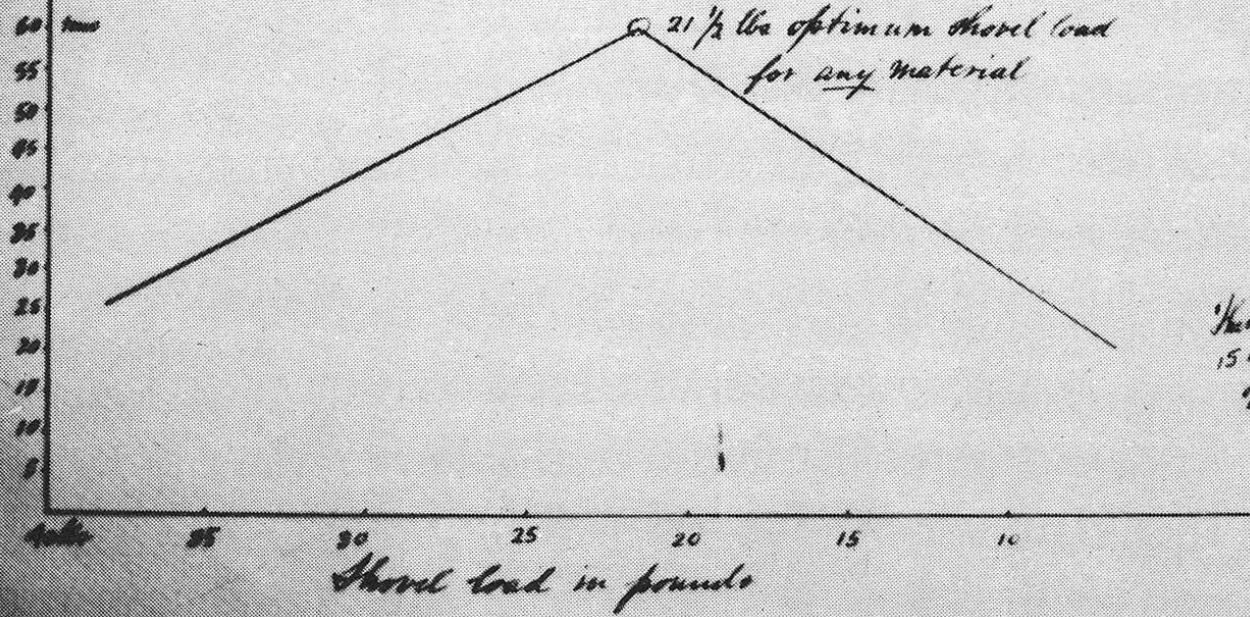
0.033

Old Way 500
New Way 140

Saving \$80000 per year



Time
shoveled
per man
per day



Today's management follows a pattern of stable conditions

Reduction

Cascading distribution of tasks to achieve a common, overarching goal.



Linearity

Assuming of linear relations, which allow simple if-then relationships. Emerging questions are answered by best practice.



Extrinsic Motivation

It relies mainly on simple, extrinsic motivational factors. More incentives should lead to more performance.

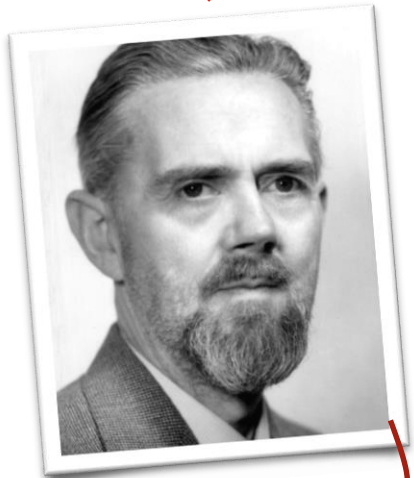


Stable conditions

The planning and subsequent implementation of a target state require stable conditions.



Management of complexity is fundamentally different to Management of complicatedness

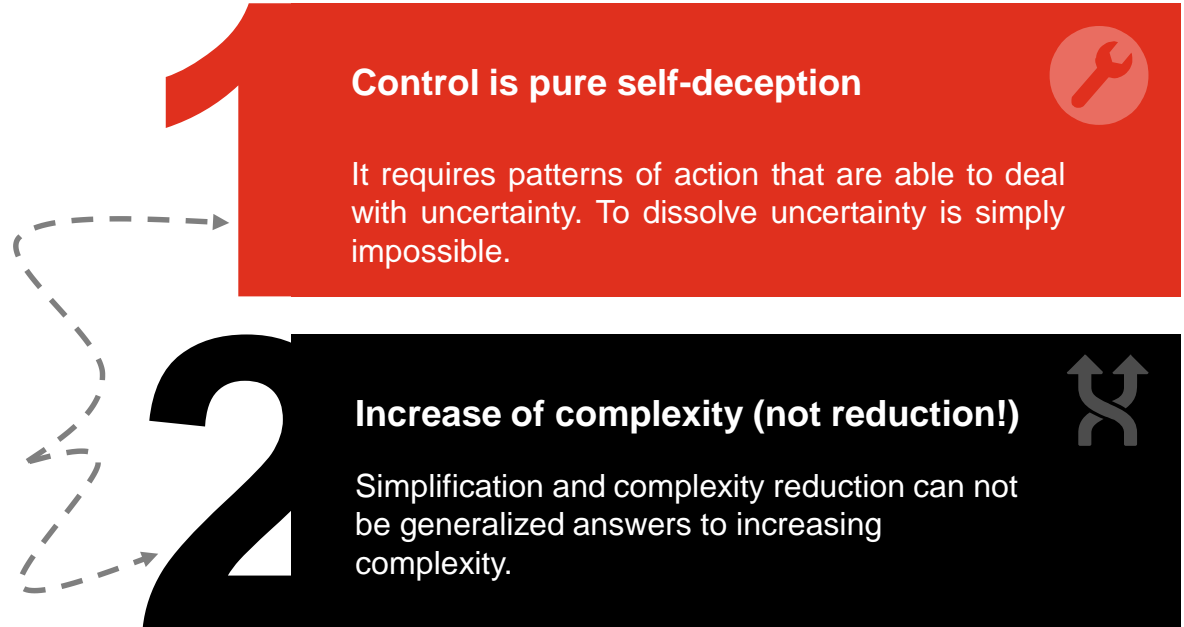


W. Ross Ashby

Ashby's Law:

„Only Variety can destroy variety.“

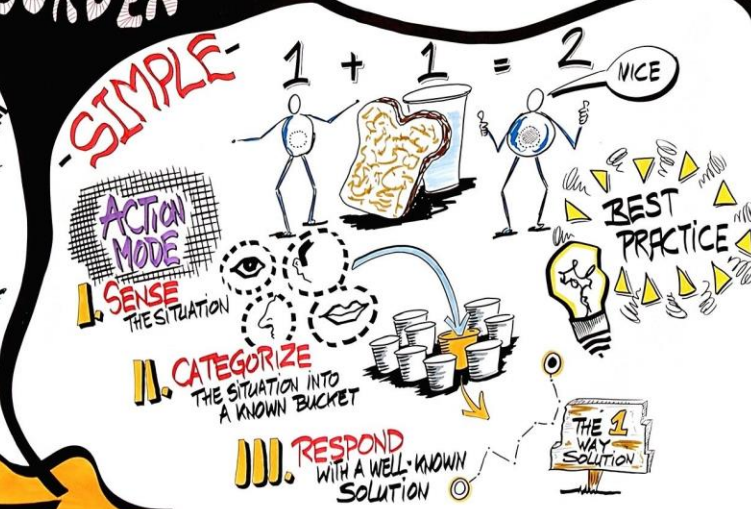
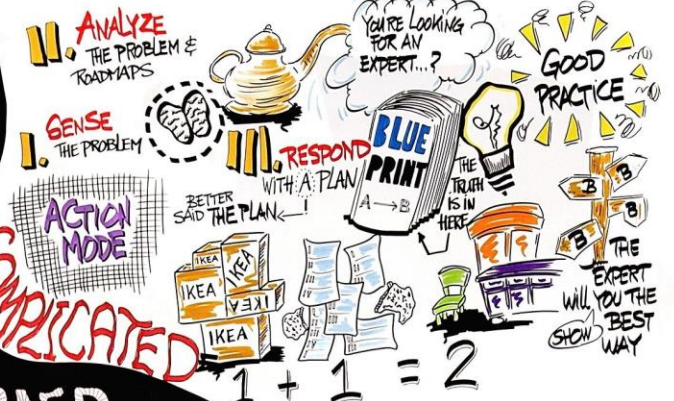
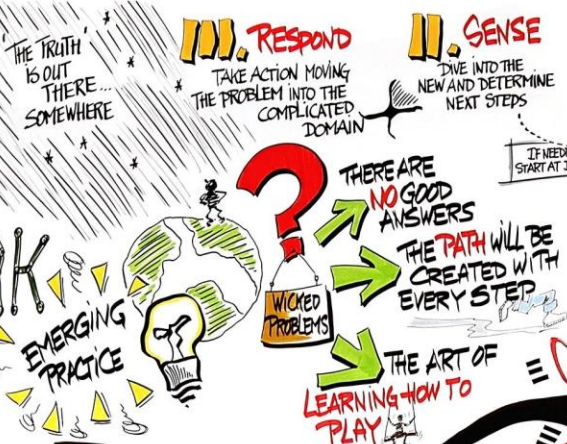
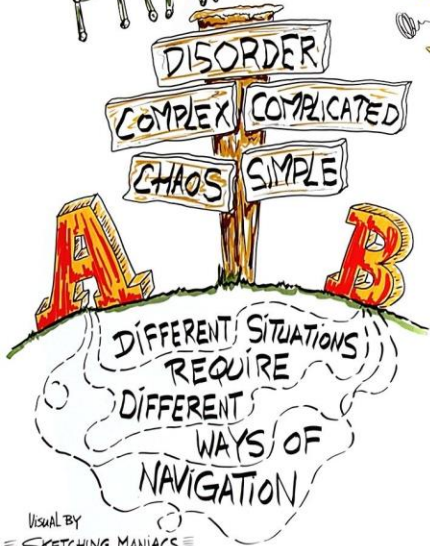
(Ashby, 1956)



Cobra effect



THE CTFW FRAMEWORK



With a customer-centric and agile approach, Spotify manages to inspire and win customers over



Spotify Engineering Culture

Part 2 of 2
Henrik Kniberg
Apr 2014

Fail Fast → Learn Fast → Improve Fast

Fail-friendly environment

Limited Blast Radius

Experiment-friendly Culture

Waste-repellent Culture



Failure Recovery > Failure Avoidance

via Decoupled Architecture

via Gradual Rollout

A or B?

opinion-driven... ego-driven... authority-driven

Data-driven decisions

If it works, keep it. Otherwise dump it.

- Keep
- Retrospective
- Daily Standup
- Google Docs
- GIT
- Gold Unconference

Skip/dump

- Time reports
- Standoffs
- Separate test teams or test phases
- Task estimates
- Useless meetings
- Corporate BS

Continuous Improvement

Driven from below, supported from above



Who's fault was it?

What did we learn?

What will we change?

Impact > Velocity

Backlog	Developing	Released	Impact achieved
...



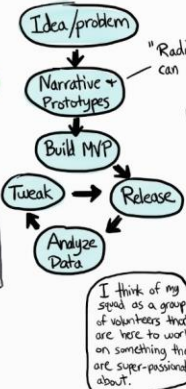
You are the culture

Model the behavior you want to see



Storytelling

Lean Startup



Innovation > Predictability

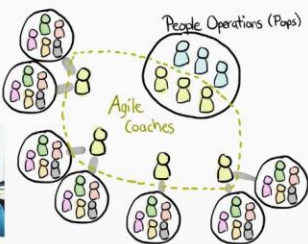
100% predictability = 0% innovation



Value delivery > Plan fulfillment



Culture-focused Roles



Healthy Culture heals Broken Process



Spotify Hack Week

Do whatever! With whoever! In whatever way!

Make cool things real!

Demo → Party on Friday!



Toyota Improvement Kata

Now Not Target

Awesome!

IMPROVEMENT THEME: BUILD QUALITY INTO THE SDLC	MY TARGET CONDITION
Now/PROBLEM	There is a sample program...
Definition of Awesome	There is a sample program...

Awesome Architecture

= I can build, test, and ship my feature within a week.
= I use data to learn from it and my improved version is live in week two.

Definition of Awesome

DEFINITION OF AWESOME = N/A
We Deliver Value By...
- Understanding who we're serving and the value we're...
- Learning the Number and How in Progress...
- Ready Financially, Structured...
- Fully Engaged in New Team Members...
- Fully Integrated & New Payment Provider...
- Other New Functionality...
We Trust and Are Proud to Be Vulnerable Because We...
- Don't Have Shift to Transferring...
- We Do Not Have Recurring Tests and Bugs

Daily Sync

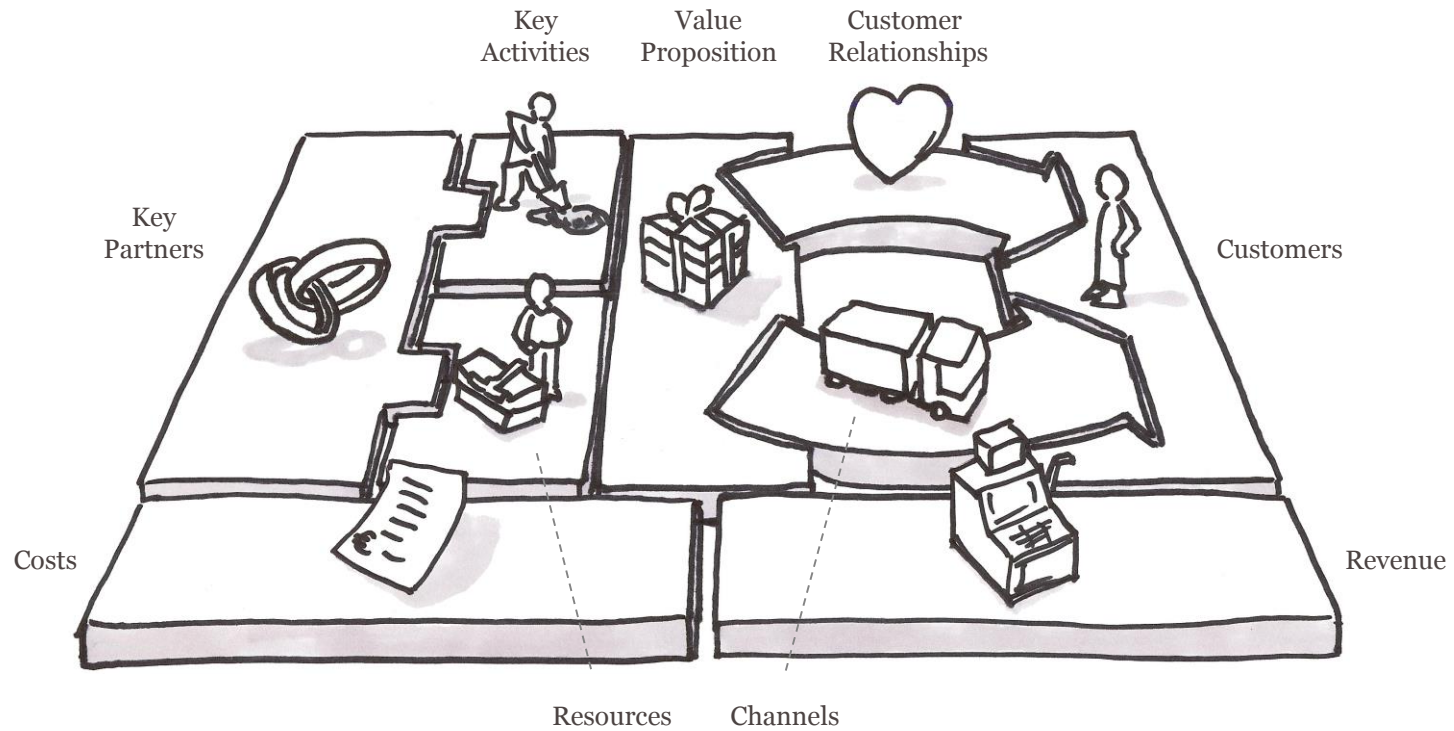


Improvement

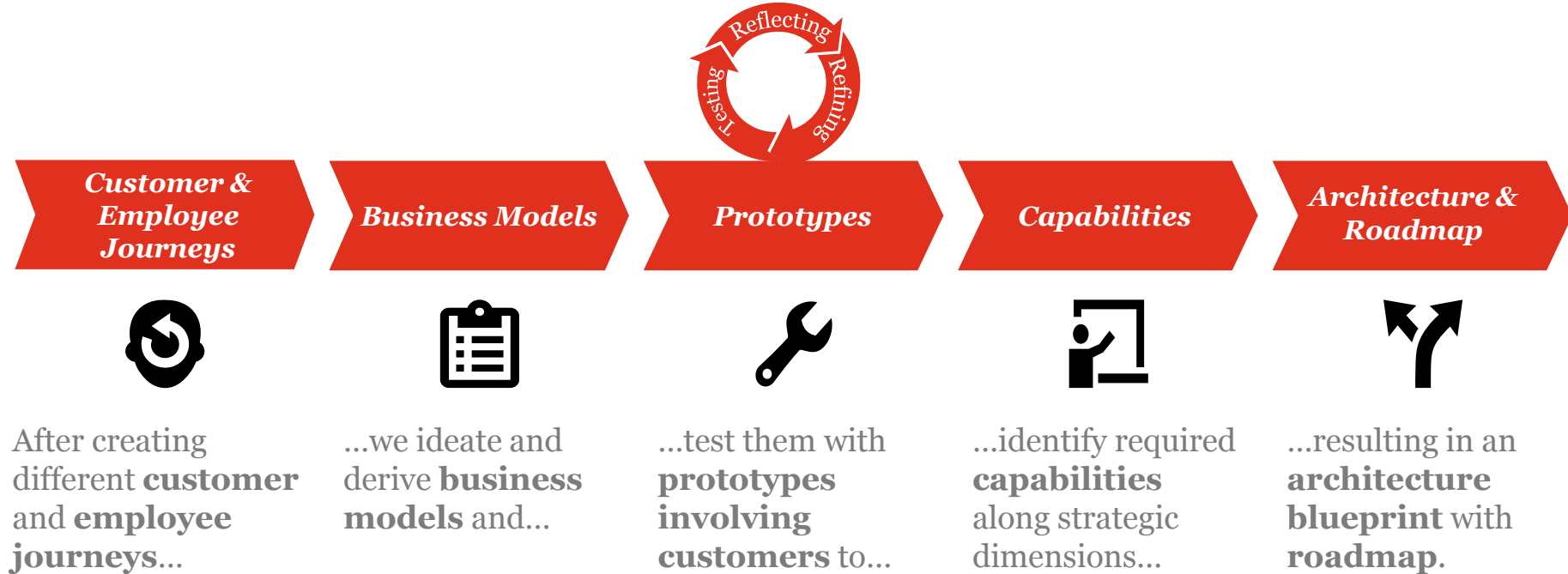
TOP IMPROVEMENTS
1. ...
2. ...
3. ...



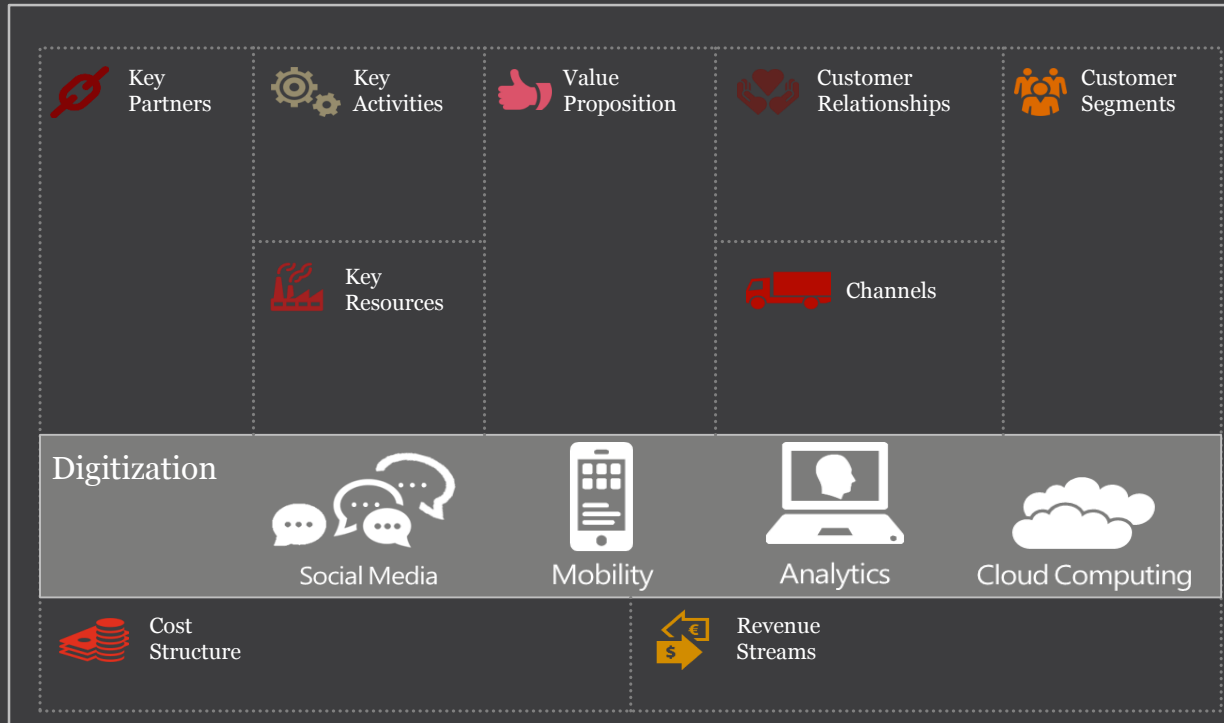
What differentiates a startup
from a traditional business?



An approach based on customer-centricity, business models and capability driven architecture has proven very effective



The business model canvas is a complex tool for developing new business models



Comments:

- Enables an opportunity to design business models creating value for business, customers, and society
- An easy to use method to illustrate ideas and dependencies of business models

Get familiar with
the tool

Your task



- Establish teams of 4 - 5 people
- Try to analyze and describe the Business Model of Sixt or Europcar

Time



20 min.

Experience

Your task



- Change the Revenue Streams Dimension from “Charge per day” to “Charge per Minute”
- Adjust the other dimensions

Time



20 min.



What's Next?

Prototyping

Description

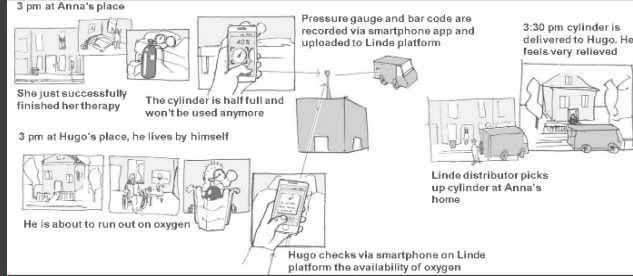
The prototype is an **early model or experiment** to rapidly create solutions to identified challenges and problems

Benefit

- Make any business model, product or service idea **tangible and visualized**
- **Test** it with the potential customers or employees

Needed material

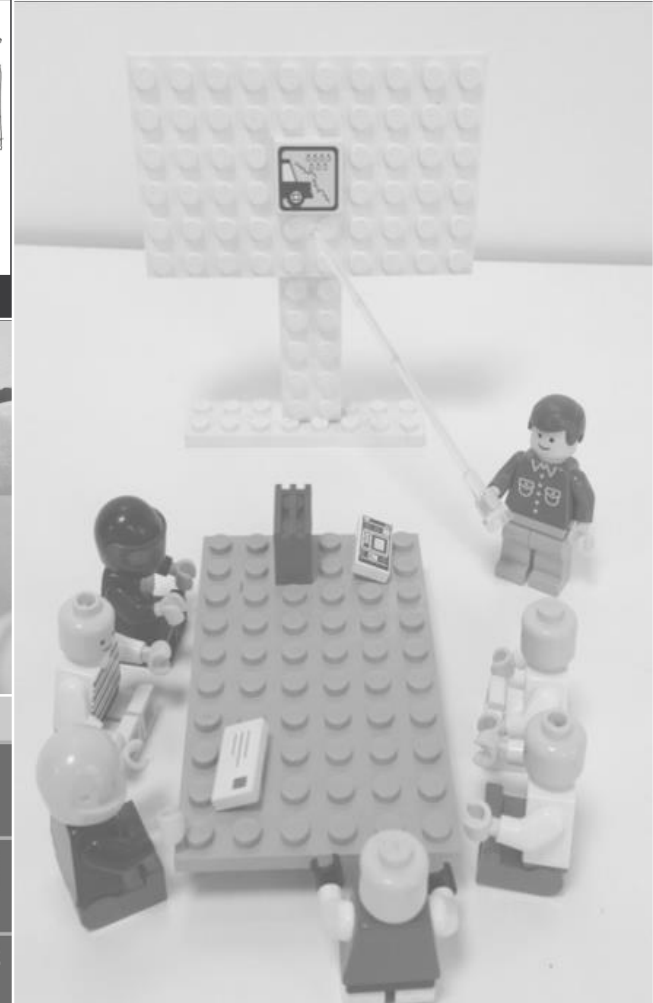
- Apps like Spark or LEGO® Movie Maker
- Paper & pencils
- Other arts & crafts material
- Divers physical artifacts like
- Others



Paper-based prototype – Customer journey



Paper-based prototype - Click dummy



Behavior prototype - Simulation with physical artifacts



The most appropriate way to test a hypothesis is to get out - apply in the most simple way (MVP) and gain direct user feedback