

# Solution - Problem

## *in the age of Digital Products*

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November 2017



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Inspiring, educating,  
advising  
teams & individuals  
building digital  
products



**Continuous Digital**  
An agile alternative to projects  
for digital business



- ❖ Software development for the digital business
- ❖ Team based development without projects
- ❖ Guided by value

Allan Kelly



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Q

How many of you create software?

How many of you work in “digital”?

It's digital, stupid





Deere & Co

+ Add to myFT

## John Deere ploughs a new furrow with algorithmic acquisition

Tractor maker is part of an 'agtech' boom that has drawn record financing this year





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Rentokil Initial PLC

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## Rentokil deploys tech to outsmart pests



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# Digital

Mobile phones

Smart phones  
Apps

Gig economy  
*Uberisation*

Sensors    Lidar  
Drones  
Robotics

GPS

Big Data

Analytics  
Internet of Things

The Web

Online retail

Social media

Social marketing

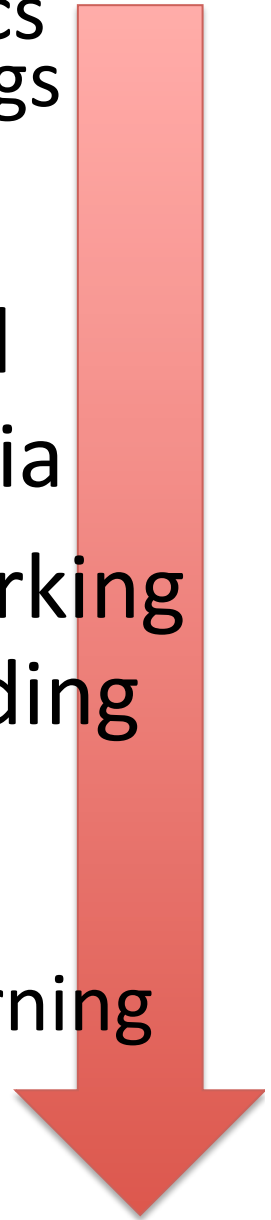
Crowd funding

Cloud

AI

Deep Learning

**Its software all the way down...**



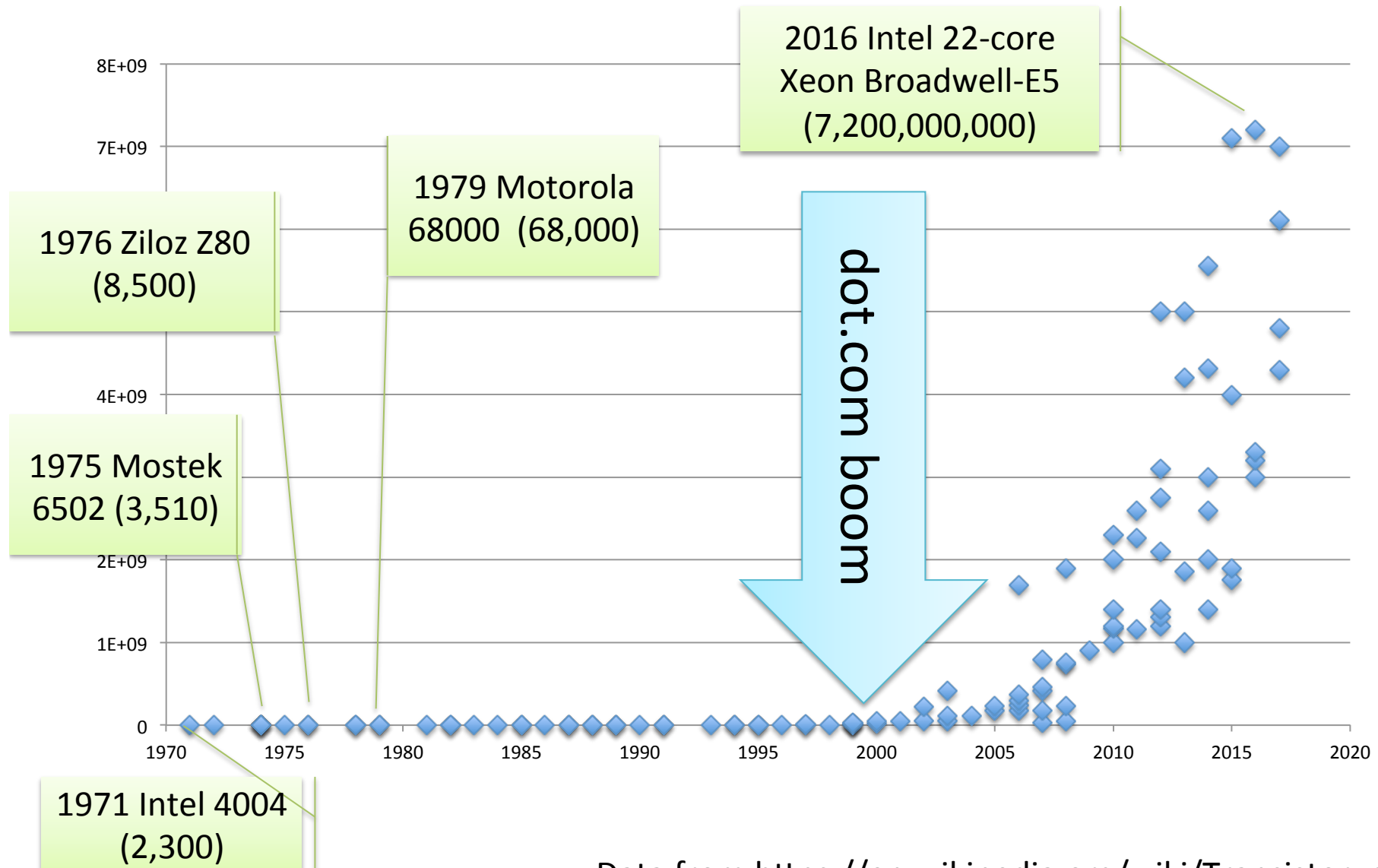


# Moore's Law

You ain't seen nothing yet

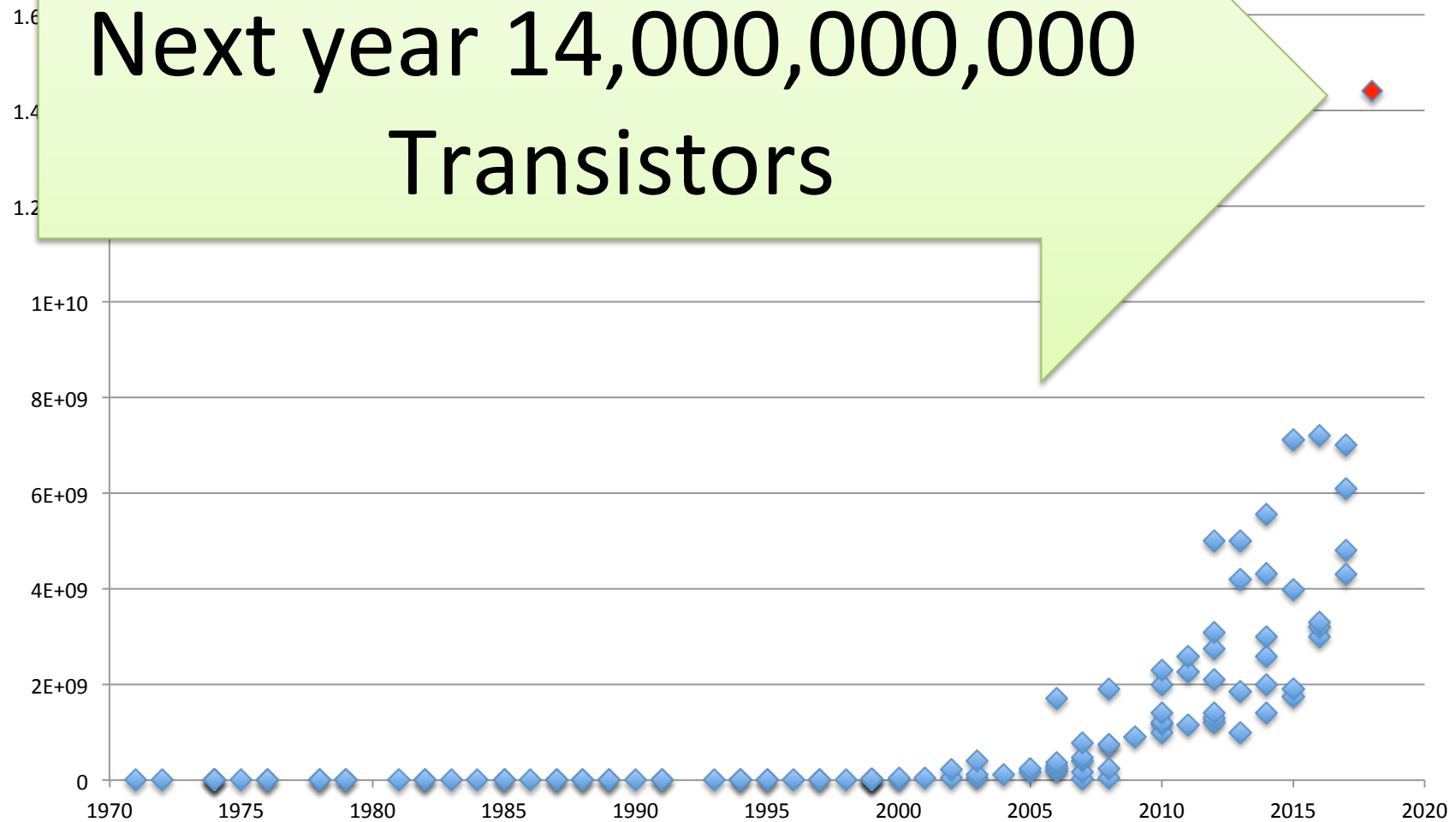


# Transistors per CPU: 1970->2020



Data from [https://en.wikipedia.org/wiki/Transistor\\_count](https://en.wikipedia.org/wiki/Transistor_count)

Next year 14,000,000,000  
Transistors



3.5E+10

2020: 28,000,000,000 Transistors

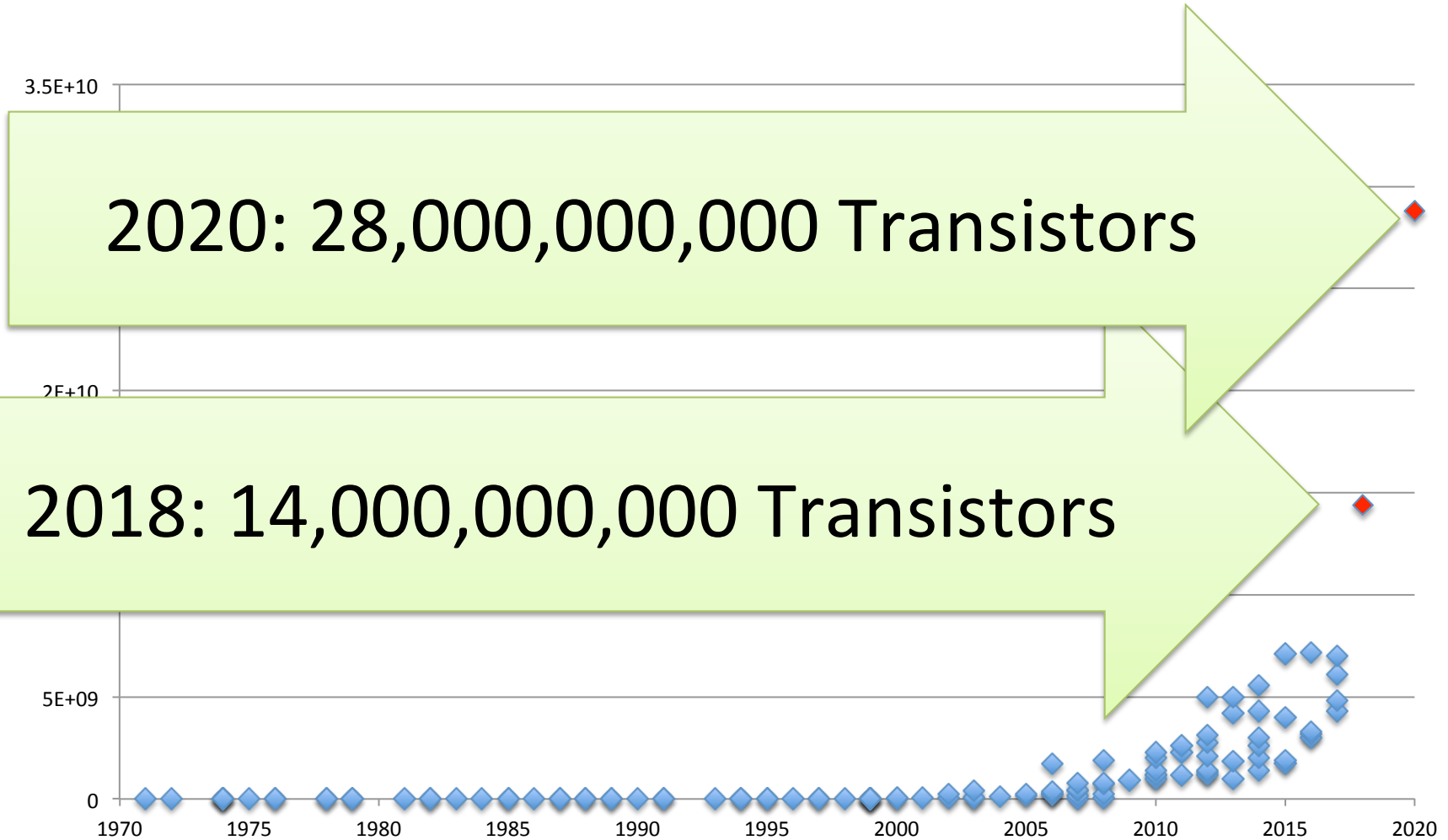
2E+10

2018: 14,000,000,000 Transistors

5E+09

0

1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020





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Artificial Intelligence and Robotics

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## DeepMind computer teaches itself to become world's best Go player

Google unit sees AI pass milestone as AlphaGo Zero dispenses with human wisdom



Humans have strengths too...

Humans are creative





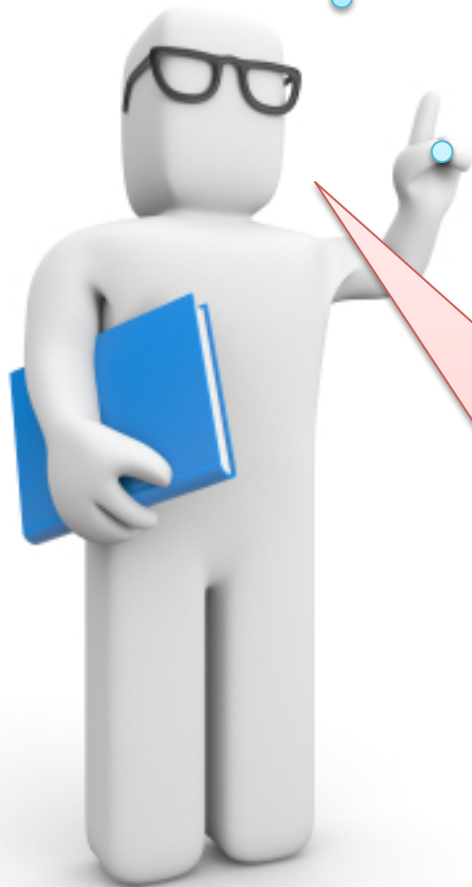
# How do YOU beat Deep Blue?

Picture by James/Kimse CC SA License  
[https://commons.wikimedia.org/wiki/  
File:Deep\\_Blue.jpg](https://commons.wikimedia.org/wiki/File:Deep_Blue.jpg)

**Technology is not the limiting  
factor**

**Imagination is**

# Products: Traditional



Where is the innovation?

Where's the imagination?

What is the problem you are trying to solve?

How can technology make it better?

1) Do the right thing

Find a problem

Understand a problem

2) Do things right

Create a solution in the best way

Aren't all the  
pressing problems  
are solved?

By the time  
we've solved  
it...



My iPhone 7 is SO slow,  
finger print scanner  
insecure, the home  
button is archaic

The iPhone X is  
**EPIC**





The solution defines the  
problem



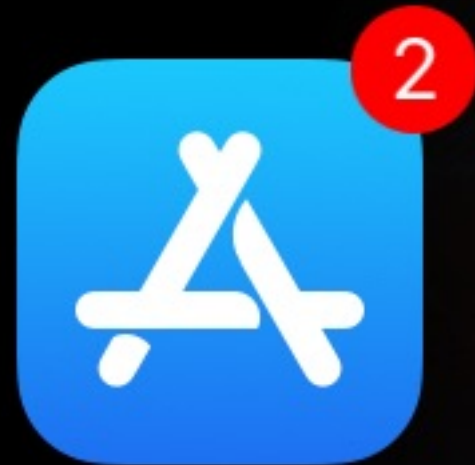


# What problem did iOS 11 solve?



App Store

iOS 10



App Store

iOS 11

You cannot define what is  
wanted at the start

Problem understanding &  
solution co-evolve

Embrace uncertainty &  
ambiguity

Solve problems by redefining  
them



# Is problem first thinking is premature optimization?



premature optimization is  
the root of all evil.

Donald Knuth

Knuth by Knuth, CC SA License

[https://en.wikipedia.org/wiki/File:Donald\\_Knuth\\_DSC00624.jpg](https://en.wikipedia.org/wiki/File:Donald_Knuth_DSC00624.jpg)

# Learn & Seek value

Explore opportunities

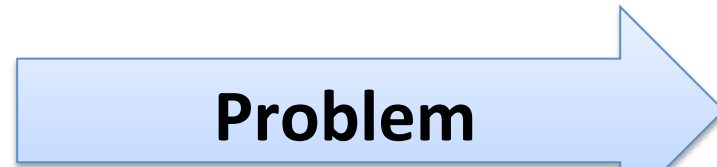
Explore technology

Explore “solution”

Explore problems

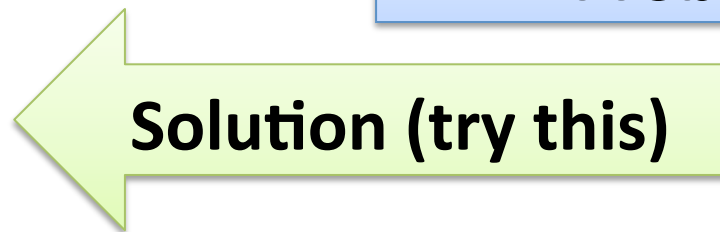
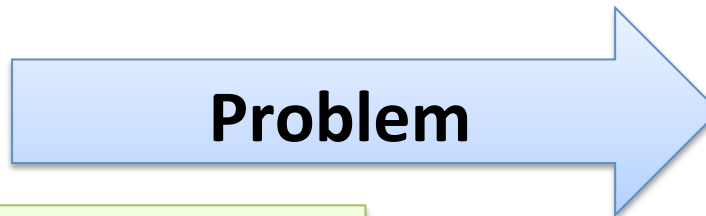
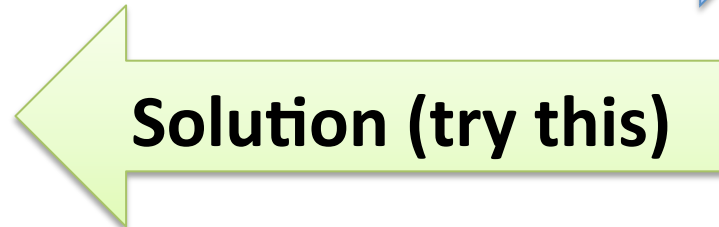
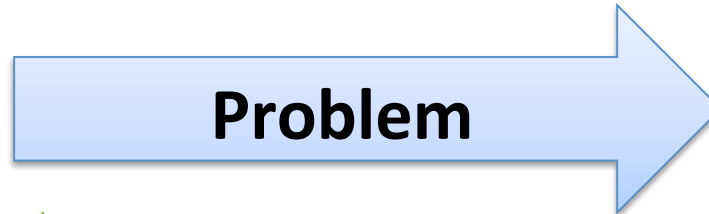
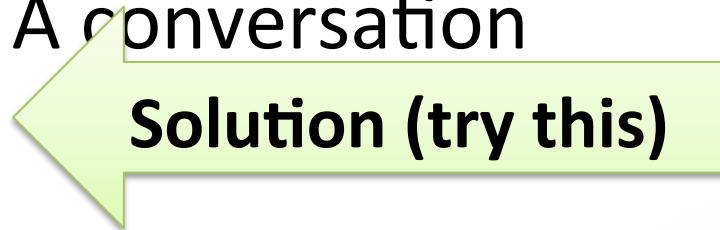
Learn by doing

Learn by probing



Challenge / Response

A conversation



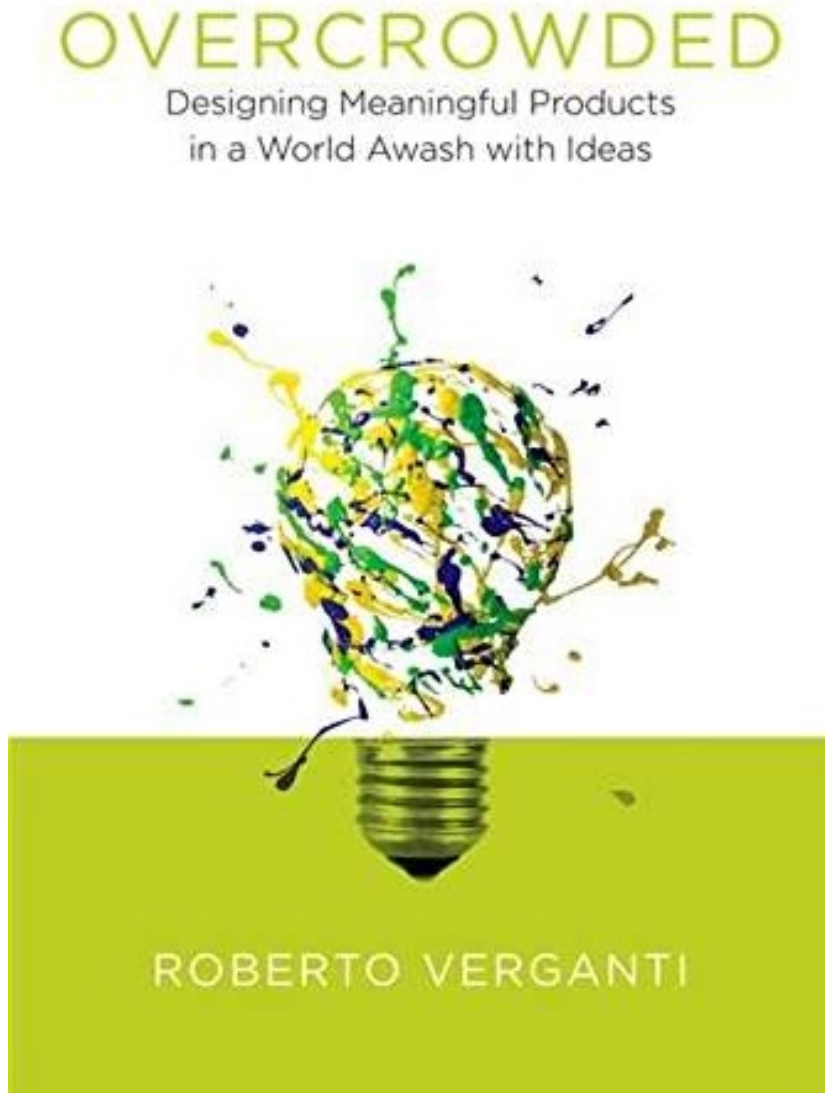
Ask not

“What problems can I address?”

Do ask

- “What can this technology do?”
- “How could this be useful?”
- “Does this give meaning?”
- (“Will people pay?” “How might I make money?”)

*Innovative products  
define new meaning*

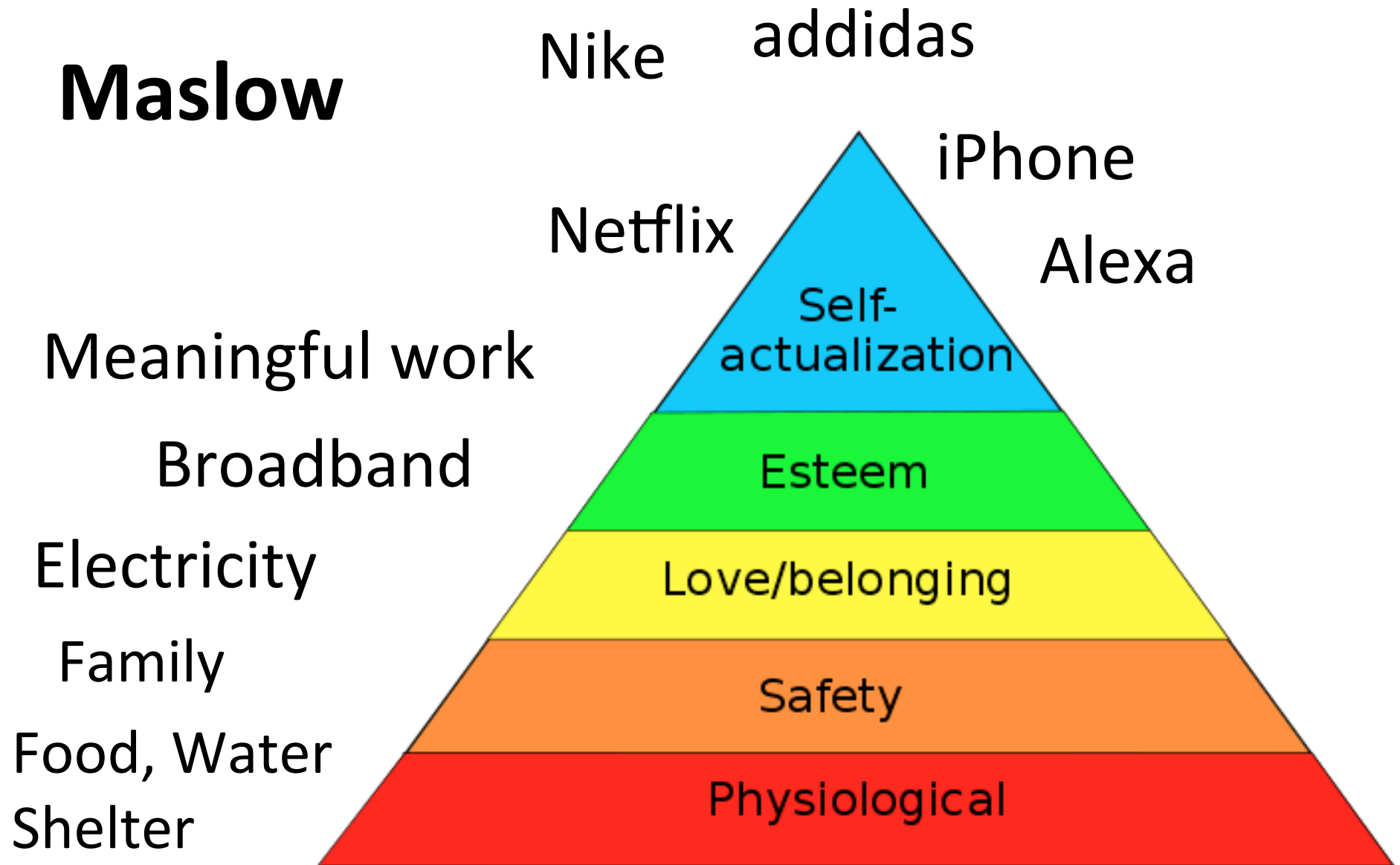


**What would I love  
people to love?**

Overcrowded, 2016  
Roberto Verganti



# Maslow



Learn by doing – iterate!



# 1) Do the right thing

Build a machine which can iterate

A learning machine

# 2) Do it right

Iterate your way to the right thing

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1. Problem->Solution
2. Solution->Problem
3. Meaning
4. Imagination
5. Iterate

LeanPub


<https://leanpub.com/cdigital>

Discount: **Tallinn2017**



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Associates**

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