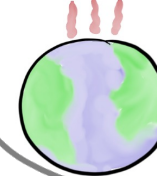


Agile = ?

KTH 2023-09-20

Climate
entrepreneur
GoClimate.org



Change instigator



Henrik Kniberg

henrik.kniberg@crisp.se
@HenrikKniberg

Consultant
crisp
www.crisp.se

Dad



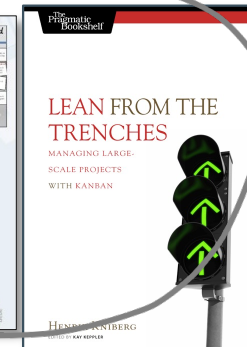
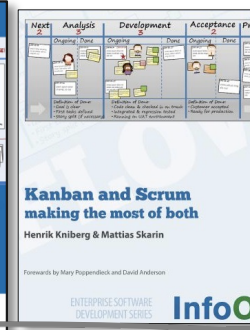
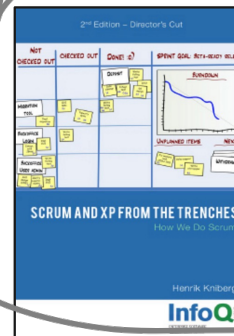
AI Whisperer, Coach, Developer



MOJANG



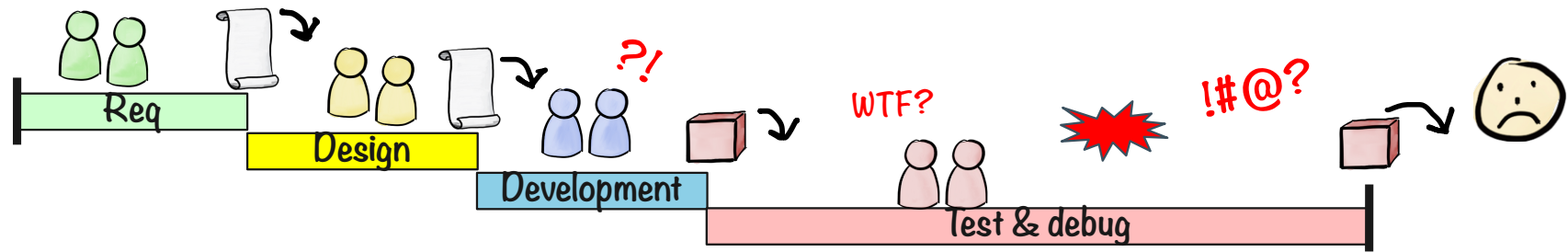
Author





Let's talk about
product
development

Waterfall model



timeline →



How the customer explained it



How the Project Leader understood it



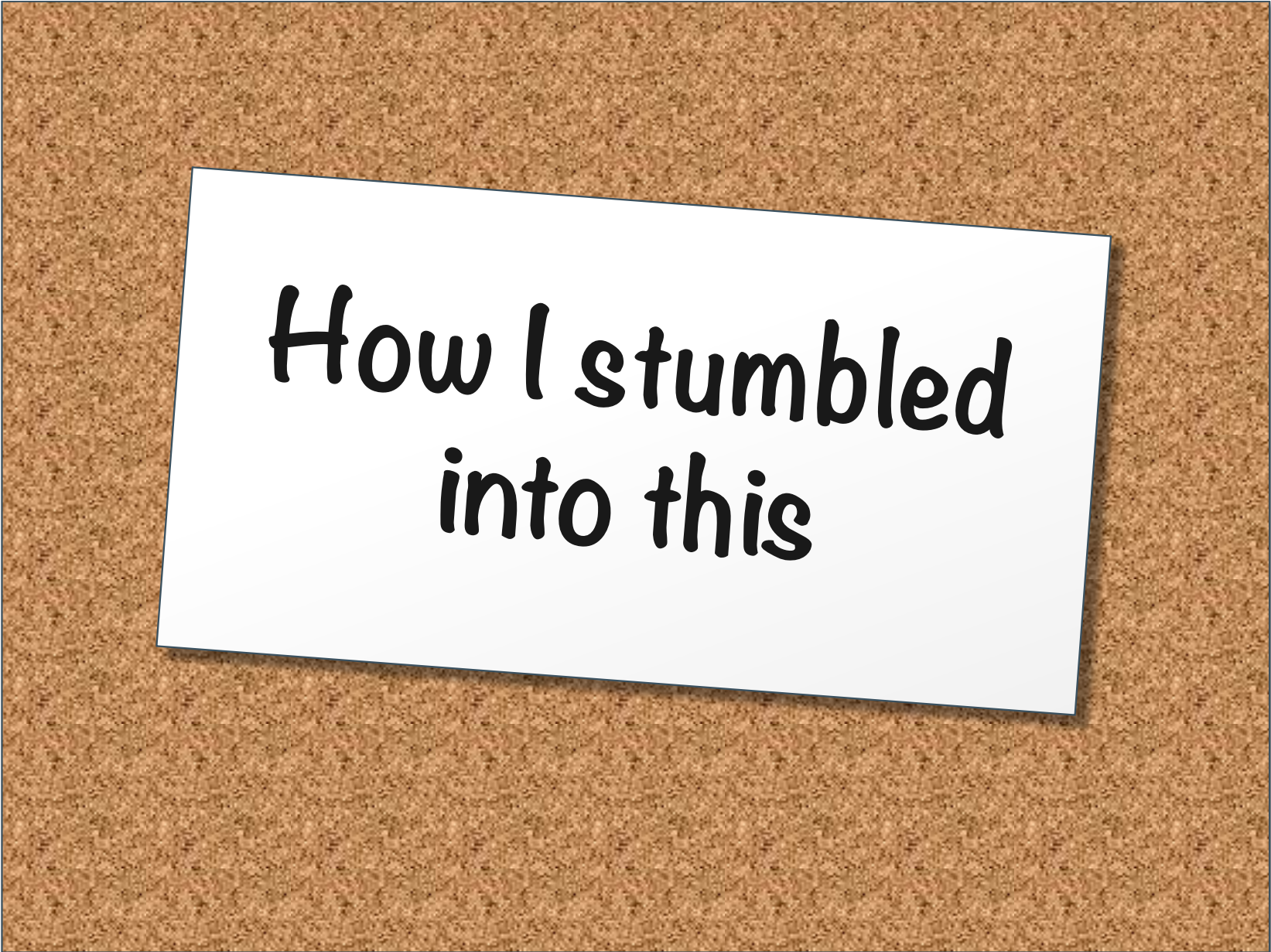
How the analyst designed it



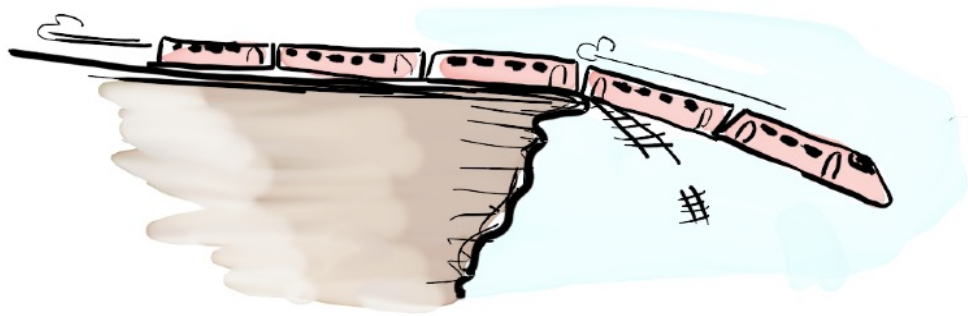
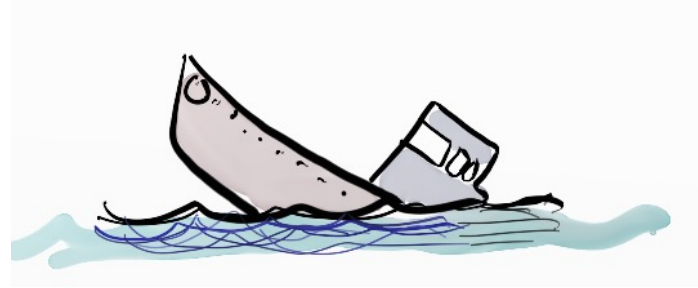
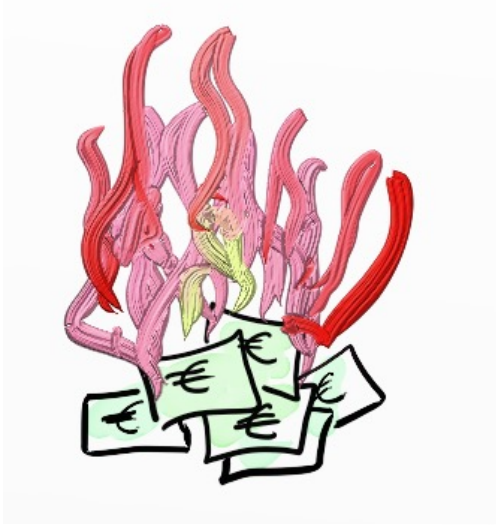
How the programmer wrote it

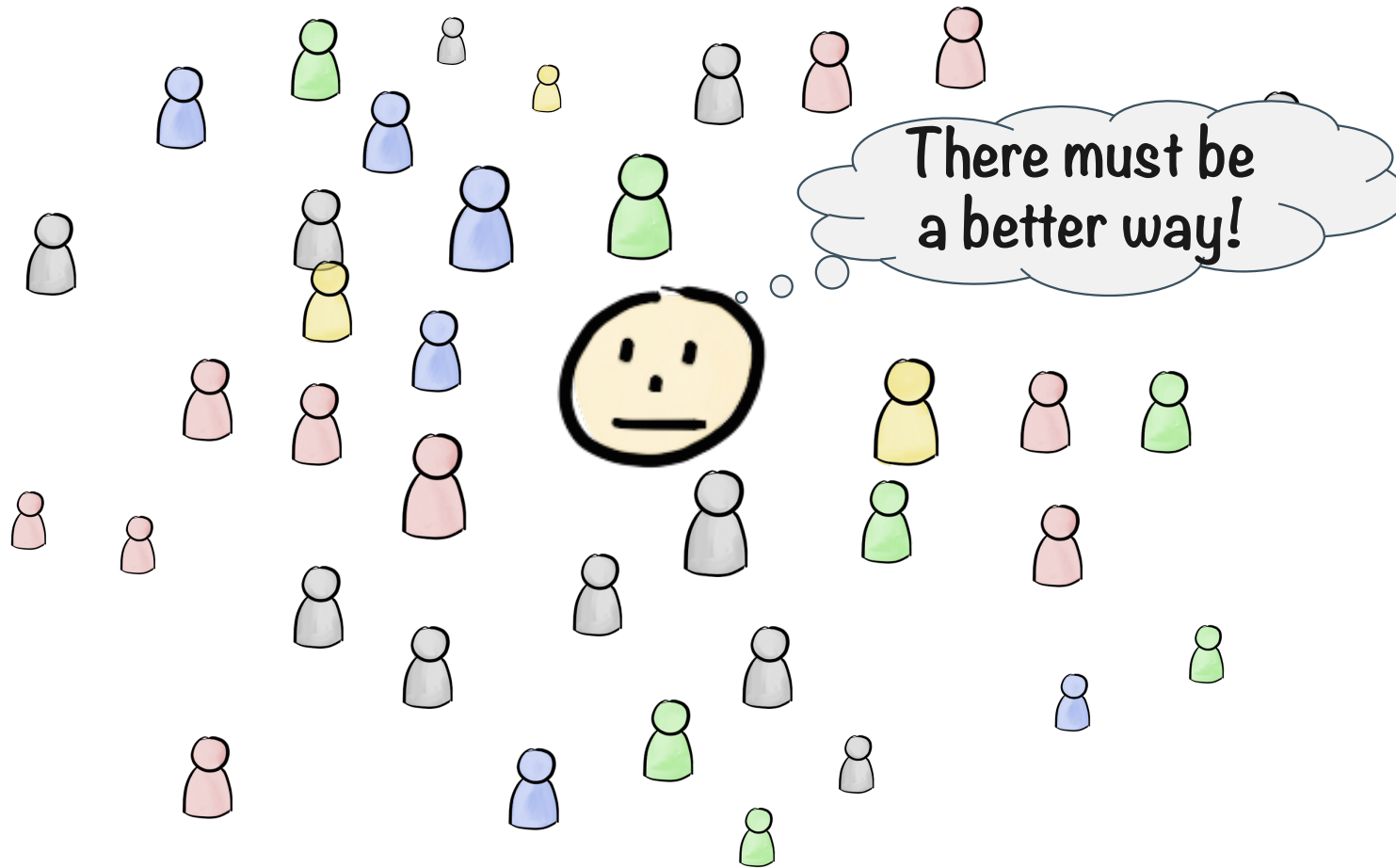


What the customer really needed

A photograph of a brown corkboard with a white rectangular note pinned to it. The note is slightly tilted and contains the text "How I stumbled into this" written in a black, casual, handwritten-style font. The corkboard has a textured, porous appearance.

How I stumbled
into this





wiki.c2.com (the first wiki – ever!)



Welcome Visitors

Welcome to the [WikiWikiWeb](#), also known as "Wiki". A lot of people had their first wiki experience here. This community has been around since 1995 and consists of many people's contributions. If you haven't experienced [CultureShock](#). The usefulness and power it offers.

This site's primary focus is [SoftwareDevelopment](#). How [InformalHistoryOfProgram](#) created a culture and [Drama](#) [WorkInProgress](#). Most of all changes as people come and go. If you are looking for a dedicated [WikisNotWikipedia!](#)

- Browse via [StartingPoints](#) your way.
- Bookmark [RecentChange](#).
- Please pay attention to the [WelcomeToWikiPleaseBe](#).
- If you have beginner questions, see [WikiWikiSandbox](#) for all.
- If you have any other questions, see [The WikiEngines](#) page for more.
- You can also select one of our [WikiEngines](#) on a good point.
- People should know a little about [WikiEngines](#).



Extreme Programming

[ExtremeProgramming](#) is one of many [AgilePractices](#). The names [AthlonXP](#) and [WindowsXP](#) would be [ExtremeProgramming](#), but if interested, you can see [WindowsXpNameDiscussion](#).

See [ExtremeProgrammingRoadmap](#) for an introduction to [extreme programming](#) on this site.

The basic advantage of XP is that the whole project is accountable. The developers will make concrete progress they will accomplish, show concrete progress on software, and when a milestone is reached they will show they did and how and why that differed from their original plan. oriented people to make their own business decisions and take advantage of opportunities as they arise, and cheaply. -- [KentBeck](#)

"XP is the practice and pursuit of effective simple development." -- Victor (from the [XpMailingList](#))

[ExtremeProgramming](#) was best described by [KentBeck](#) in [ExtremeProgrammingExplainedEmbraceChange](#) page for a 'back-cover' summary of XP).

This [OneTrickPony](#) ain't no [SilverBullet](#). And it's not a [SilverBullet](#).

Interesting to note that [ExtremeProgramming](#) is a practice for programming; it appears to be based in trial-and-error. Without tests and refactoring, it is not workable. first, write tests to that design, then program, then refactor, and iterate?

That's exactly what [ExtremeProgramming](#) is, just with frequent increments.

The differences between XP and trial-and-error are:



Pair Programming

My mind to your mind. My thoughts to your thoughts. -- [MrSpeck](#)



Pair Programming

An [ExtremeProgrammingPractice](#) in which two developers work together at one workstation. One developer is not currently doing any work, but the other thinks about the class that will be written, and the other thinks about the code that will be written. single, unsubstantiated, unscientific, unproven, but that, after training for the "PeopleSkill" practice, more than twice as productive as one developer working alone.

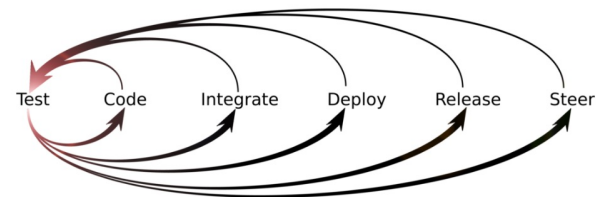
Once upon a time there was an engineer who drove a locomotive both far and wide. Accompanied by a monkey who would watchin' everything the engineer did. -- Jesse Fuller, "The Monkey and the Locomotive"



Ward Cunningham



Test Driven Development



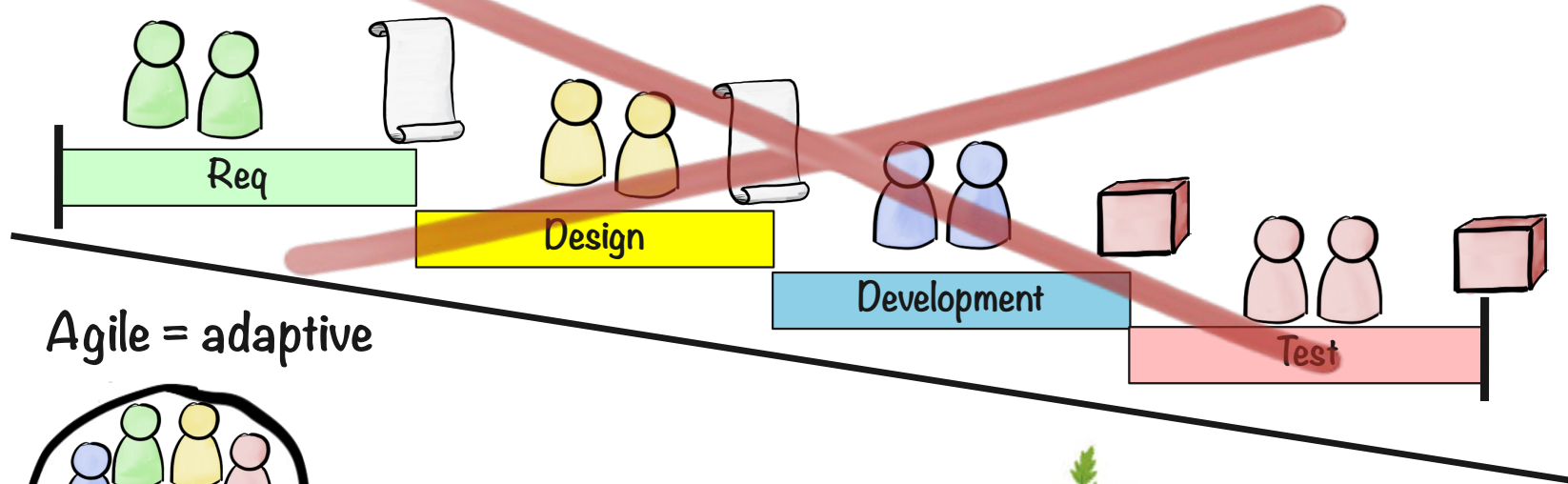
When you code, alternate these activities:

- add a test, get it to fail, and write code to pass the test ([DoSimpleThings](#), [CodeUnitTestFirst](#))
- remove duplication ([OnceAndOnlyOnce](#), [DontRepeatYourself](#), [ThreeStrikesAndYouAutomate](#))

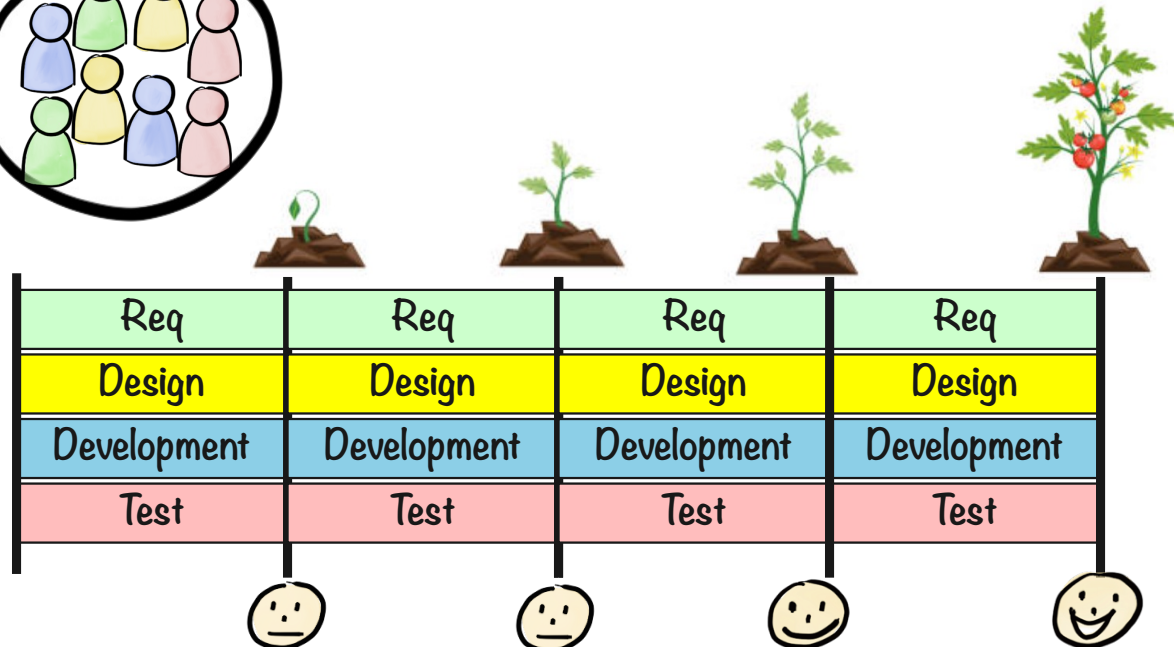
This inner loop pumps the outer loops of [ExtremeProgramming - ContinuousIntegration](#), [DailyDeployment](#), [FrequentReleases](#), and [SteeringSoftwareProjects](#). (Hence the graphic.) Tests help us keep promises regarding the quality, cost, and existence of previously installed features.

Using this system, all my code is highly decoupled (meaning easy to re-use) because it's all based on test cases, the clients, and the test data classes.

Waterfall = predictive



Agile = adaptive







www.agilemanifesto.org

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Individuals and interactions over processes and tools

product

Working software over comprehensive documentation

Customer collaboration over contract negotiation

feedback

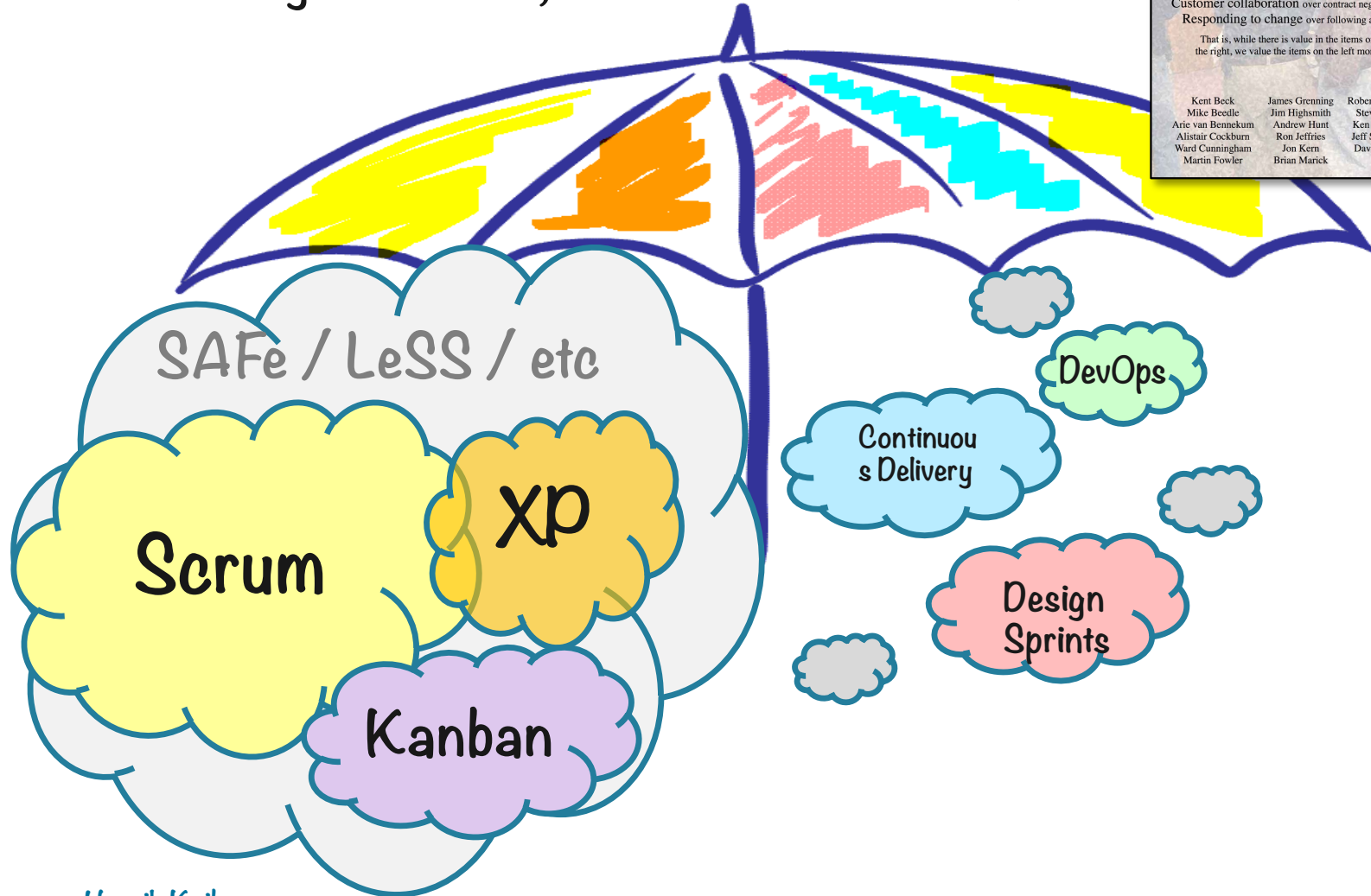
Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

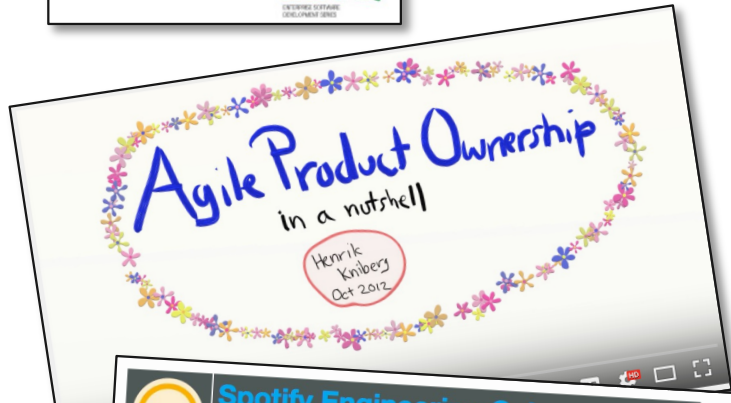
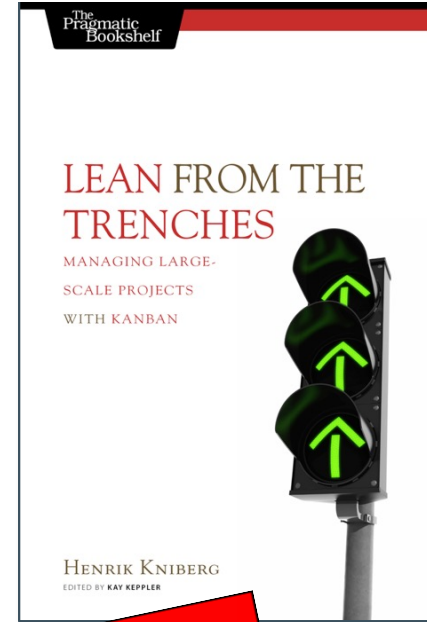
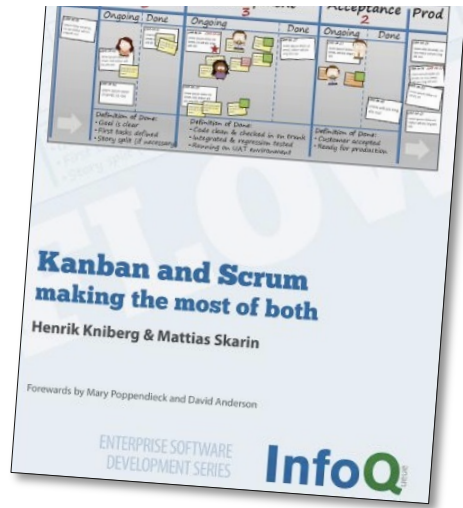
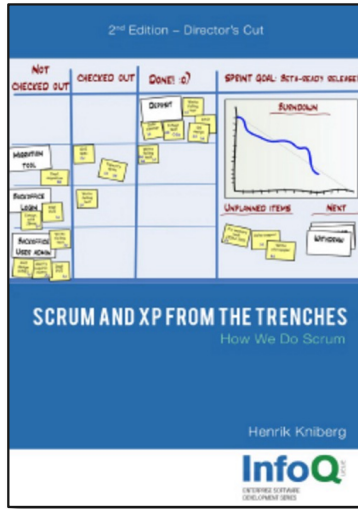
Principles behind the Agile Manifesto

- Our highest priority is to **satisfy the customer** through early and continuous delivery of valuable software.
 - **Welcome changing requirements**, even late in development. Agile processes harness change for the customer's competitive advantage.
 - **Deliver working software frequently**, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
 - **Business people and developers must work together** daily throughout the project.
 - Build projects around **motivated individuals**. Give them the environment and support they need, and **trust** them to get the job done.
 - The most efficient and effective method of conveying information to and within a development team is **face-to-face conversation**.
- **Working software** is the primary measure of progress.
 - Agile processes promote **sustainable development**. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
 - Continuous attention to **technical excellence and good design** enhances agility.
 - **Simplicity**--the art of maximizing the amount of work not done--is essential.
 - The best architectures, requirements, and designs emerge from **self-organizing teams**.
 - At regular intervals, the team **reflects on how to become more effective**, then tunes and adjusts its behavior accordingly.

Agile "umbrella" – a family of iterative, incremental frameworks



Henrik Kniberg



Banks...

Game companies...



Government...



Aerospace...

Big telcos...

What's the pattern?



A corkboard with a white sticky note. The sticky note is tilted and contains the text "How awesome products are developed" in a black, handwritten-style font.

How awesome
products are
developed

What I mean by
Awesome Product

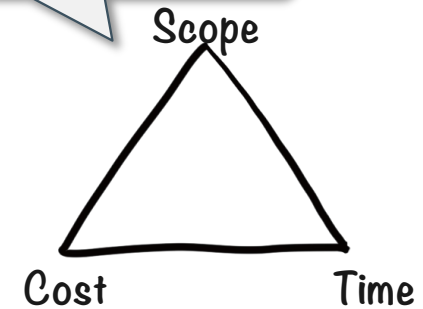
Achieves
Impact



Delights
users

Sustainable

This is a tool, not a goal



Teams!

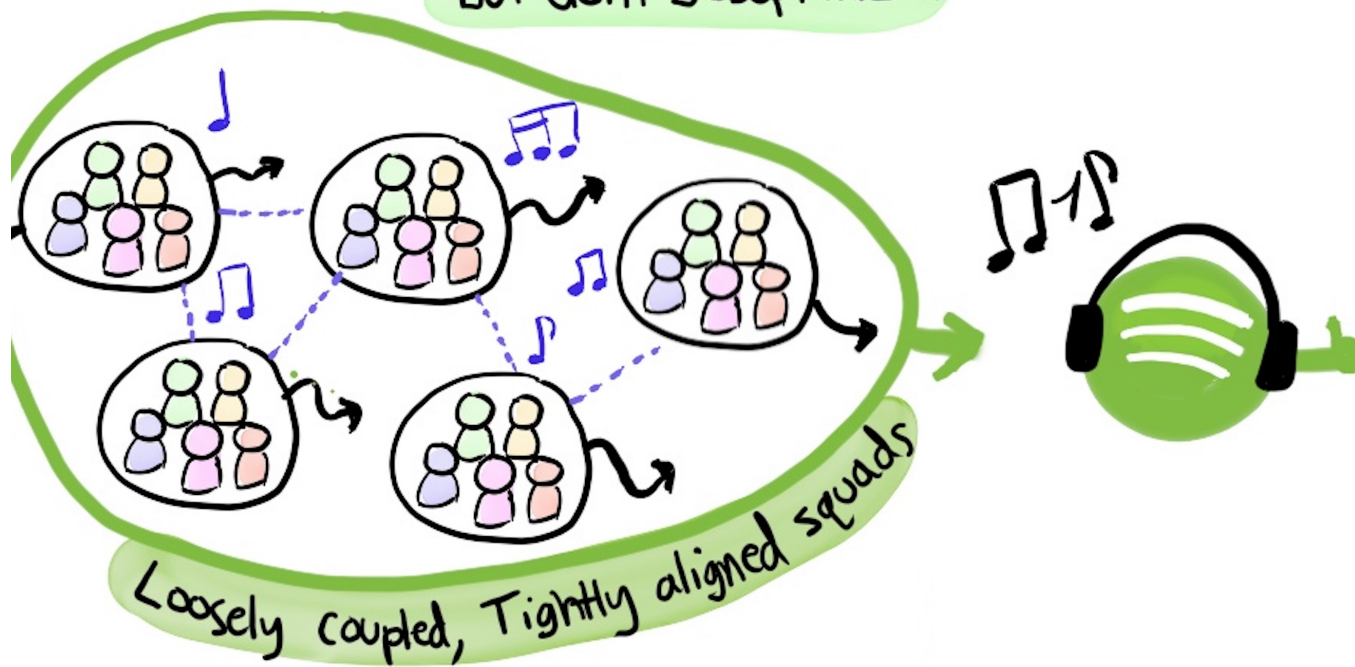
stable, small, cross-functional, self-organizing, co-located



Teams of teams!

Autonomous Squads

Be autonomous,
but don't suboptimize!



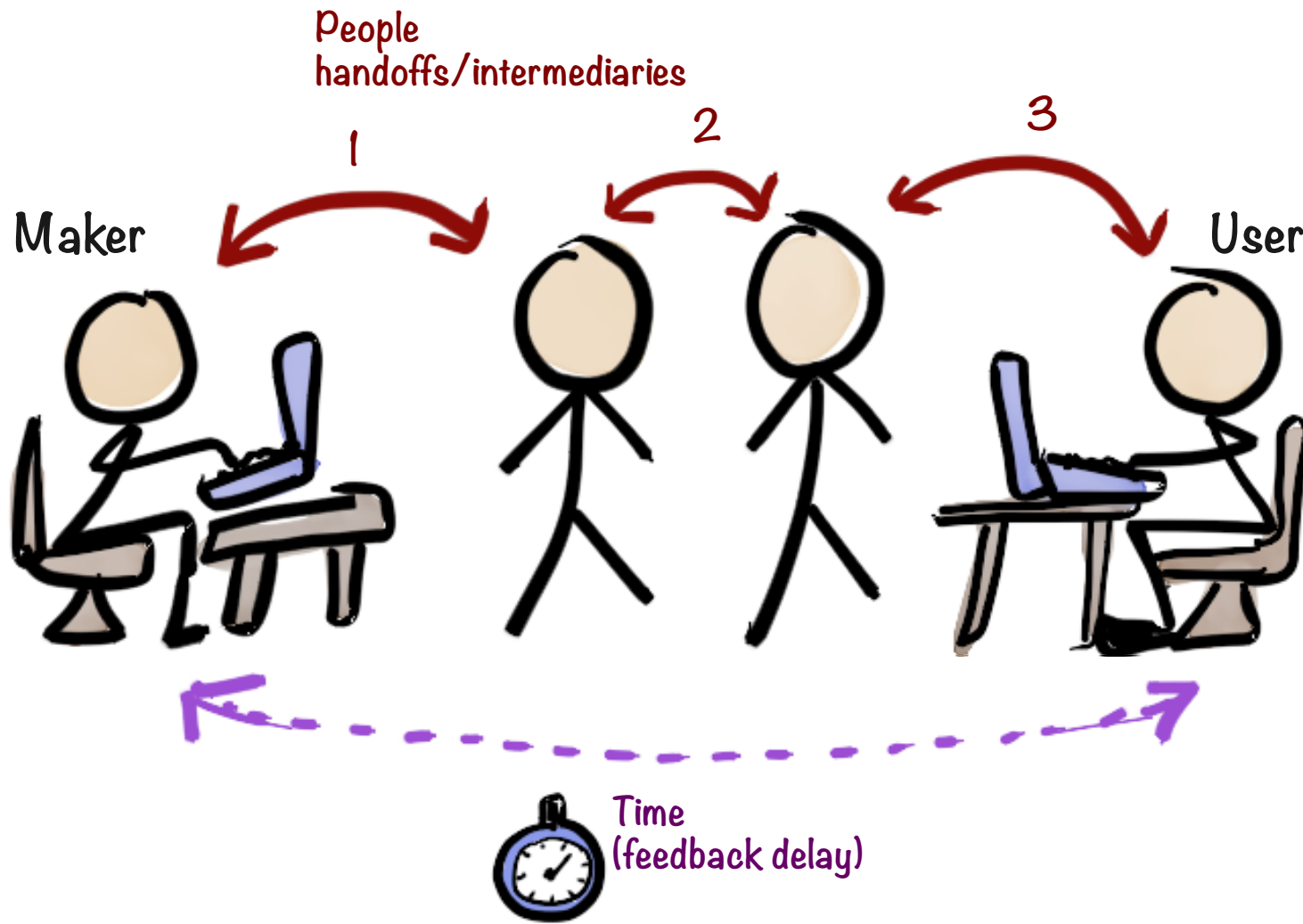
Self organization



A photograph of a brown corkboard with a white rectangular sticky note pinned to it. The sticky note has the text "Minimize the gap!" written in a bold, black, sans-serif font. The text is centered on the note and slanted slightly to the right. The corkboard has a natural, textured appearance with small holes and a warm brown color.

Minimize the gap!

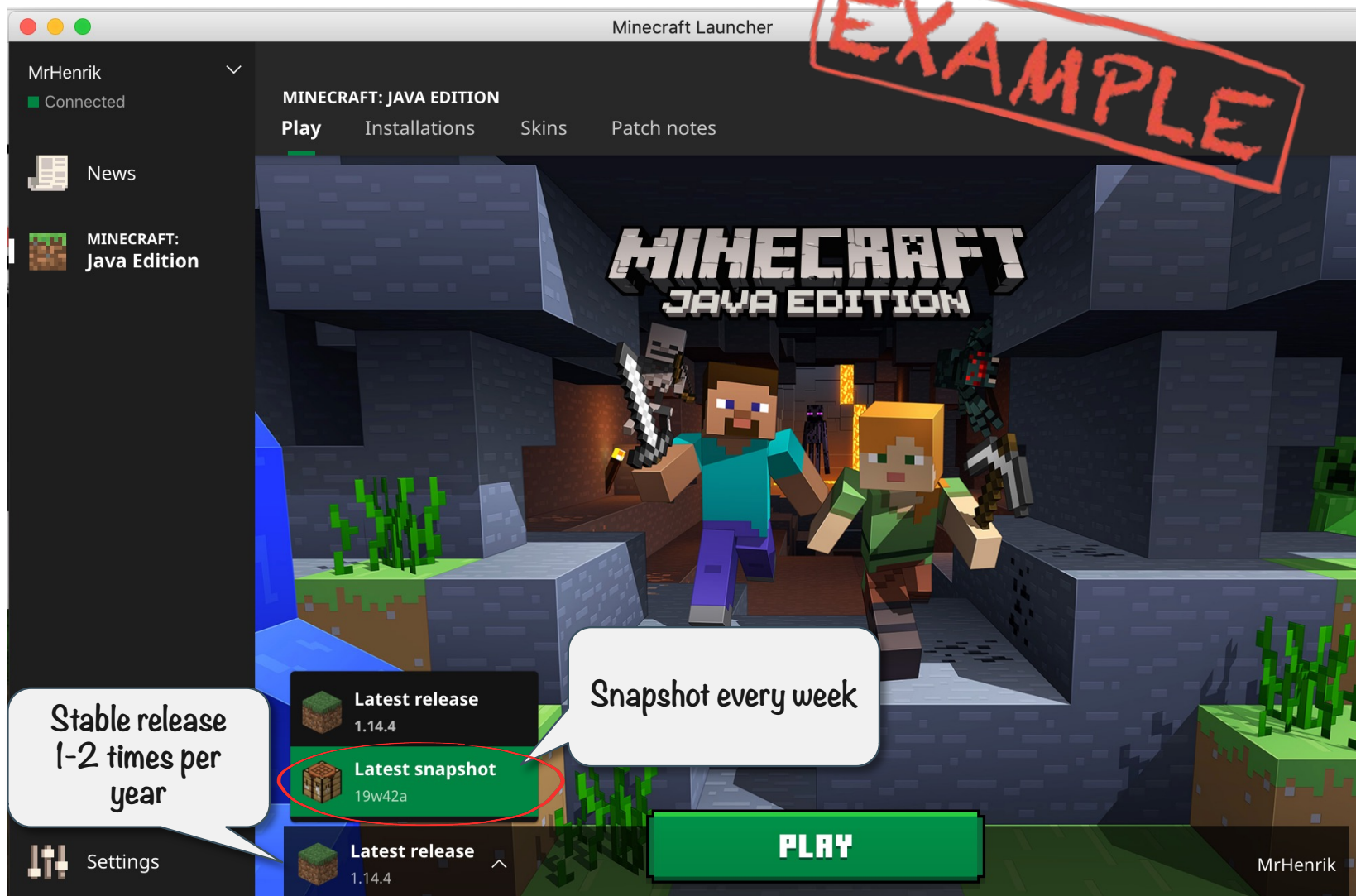
Minimize the gap!





EXAMPLE





Direct interaction = ❤️

Henrik Kniberg @henrikkniberg · Aug 17, 2021

OK minecrafters, we've now shipped 1.18 experimental snapshot 4. Try it out (ideally in survival) and give us feedback! [minecraft.net/en-us/article/...](#)




243 270 3,655

Posted by **Minecraft gameplay dev/designer** u/MrHenrik2 1 year ago

Minecraft 1.18 experimental snapshot 5 is out!

OK we have a new experimental snapshot for you with peakier peaks and whole bunch of other tweaks (hey, that rhymes). Try it out (ideally in survival) and give us feedback!

This update can also be found on [minecraft.net](#). See also [snapshot 1](#) and [snapshot 2](#) and [snapshot 3](#) and [snapshot 4](#).



Henrik Kniberg @henrikkniberg · Oct 11, 2021

Hey Minecrafters, last Java snapshot (21w40a) we changed the size of biomes. If you've played on that snapshot, how do you feel about the average biome sizes now?

Mostly too large	13.9%
About right	46.1%
Mostly too small	7.4%
No opinion	32.6%

9,279 votes · Final results

Henrik Kniberg @henrikkniberg · Jan 14

Today design decision: What should Piglins give you in return for gold? Suggestions?



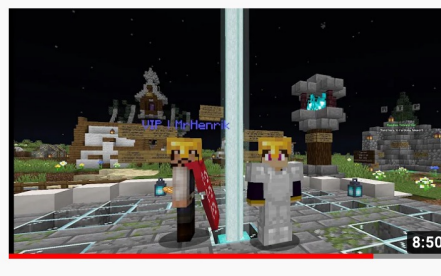
856 328 2.2K

Agent M @AgentM124 · 15h

Playing with @henrikkniberg has been a pleasure. Thanks to highly involved testing on actual servers, the game's quality will greatly improve.



Hanging Out With Mojangsta Henrik on Minecraft 20w...
Henrik is awesome, but his relationship with piglins is very complicated! ----- LINKS ----- ...
[youtube.com](#)



Hanging Out With Mojangsta Henrik on Minecraft 20w08a!

232 views · 2 years ago

Agent M

Henrik is awesome, but his relationship with piglins is very complicated! ----- LINKS ----- Twitch: ...

Example: Public bug tracker (yes, anyone can add tickets!)

The screenshot shows the Mojang public bug tracker interface for Minecraft: Java Edition. The page is titled "Open issues" and displays a list of 10 issues on the left, with the selected issue "MC-161261: Treating zombie villagers does not display a hand animation" shown in detail on the right. The interface includes a navigation menu, a search bar, and a "Log In" button. The selected issue details include its type (Bug), status (OPEN), resolution (Unresolved), and a list of affected versions. It also features a description, an attachment (a screenshot of a zombie villager), and a list of related issues.

MOJANG Dashboards ▾ Projects ▾ Issues ▾ Search 🔍 Log In

Minecraft: Java Edition

Summary
Issues
Reports

Open issues [Switch filter ▾](#) [View all issues and filters](#)

Order by Updated ▾ ↓

- MC-162993 Transparent textures on so...
- MC-160715 The on-screen keyboard ca...
- MC-162338 Entity shadows on blocks wi...
- MC-162378 Screen turns black during th...
- MC-162991 Bug dans les niveaux de pro...
- MC-162989 Map Villager Crash with no ...
- MC-160995 When breaking blocks in cre...
- MC-161220 Right-clicking on a button w...
- MC-161259 Don't play hand animation w...
- MC-161261 Treating zombie villagers do...**
- MC-161262 Feeding pandas does not pl...
- MC-161435 Arm swing animation is play...
- MC-162988 Delay on Keyboard
- MC-162214 Player hitbox sinks into the ...
- MC-161888 Casting issue: Enchantment...
- MC-161592 Entities lose their scores wh...
- MC-161690

Minecraft: Java Edition / MC-161261 10 of 6234

Export ▾


Details

Type: **Bug**
Status: **OPEN**
Resolution: Unresolved
Affects Version/s: 1.14.4, 19w37a, 19w38b, 19w38a, 19w39a, 19w40a
Fix Version/s: None
Labels: None
Confirmation Status: Confirmed
Category: Player
Mojang Priority: Important

Description

Treating zombie villagers does not display a hand animation.

Attachments


2019-09-18_13.32.19.png
18/Sep/19 7:41 AM 844 kB

Issue Links

relates to

- MC-160981 Making tamed wolves, parrots and... **OPEN**
- MC-161259 Don't play hand animation when u... **OPEN**
- MC-132445 Spawn eggs used on water do not... **IN PROGRESS**
- MC-160895 Breeding animals does not display... **IN PROGRESS**
- MC-161151 Right clicking on redstone ore whi... **IN PROGRESS**

People

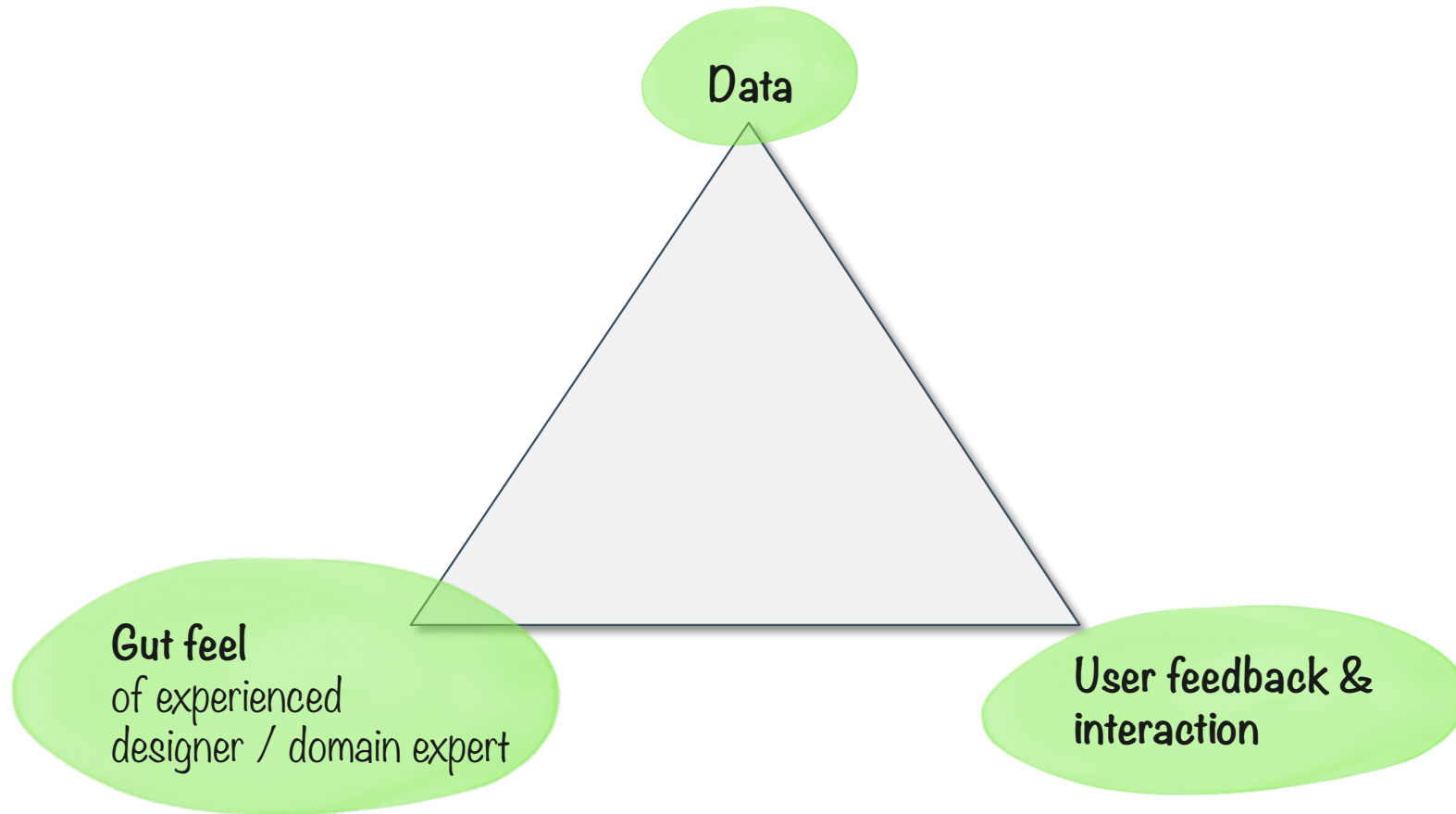
Assignee: [Mojang] Cory Scheviak
Reporter: [Mod] Les3awe
Votes: 4 Vote for this issue
Watchers: 4 Start watching this issue

Dates

Created: 18/Sep/19 7:41 AM
Updated: 3 hours ago
CHK: 6 days ago

1 2 3 4 5 >

Sources of insight & decision making

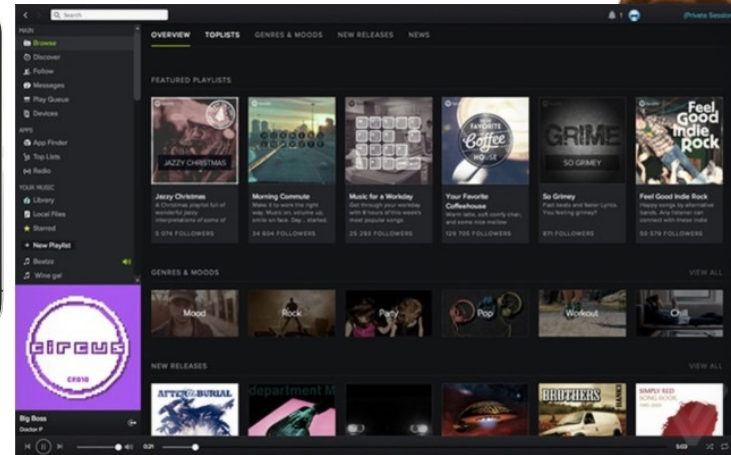
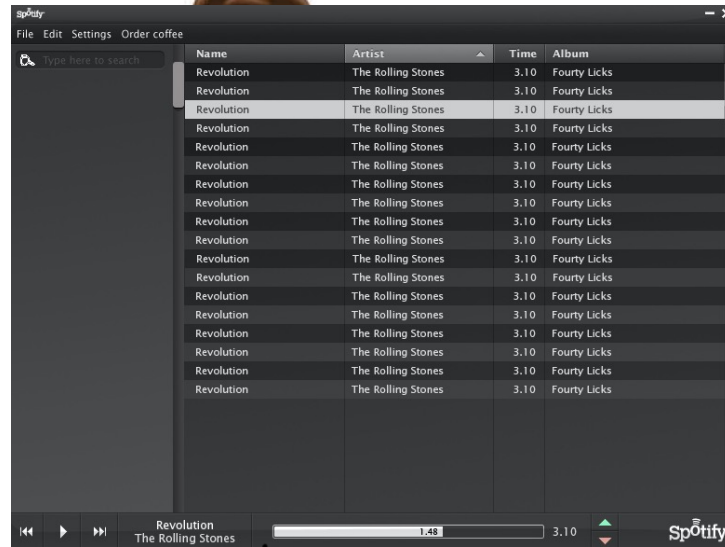
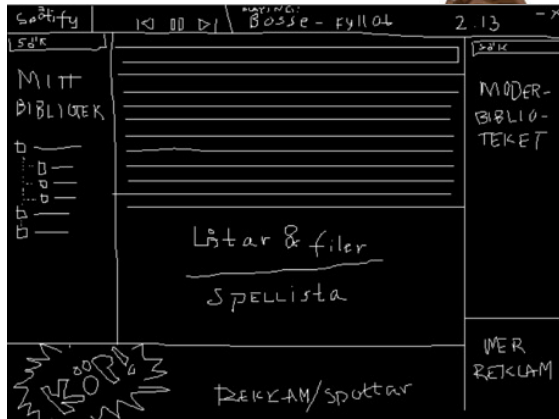




Constant
experimentation

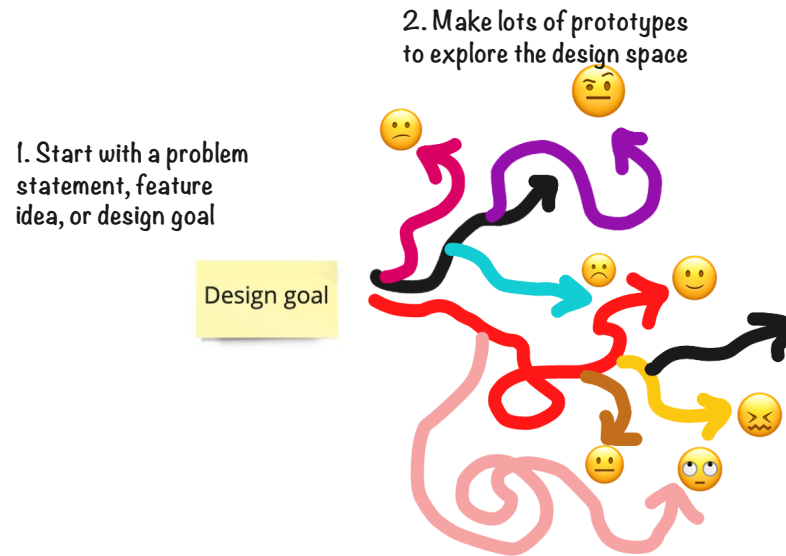
Evolution of Spotify

EXAMPLE



The birth of a Minecraft feature

EXAMPLE



Dripstone subfeature ideas

Hurts to fall on a stalagmite

Can be broken if you throw a trident

Drips water

If broken, the entire stalactite falls down and hurts anyone below

Grows slowly over time

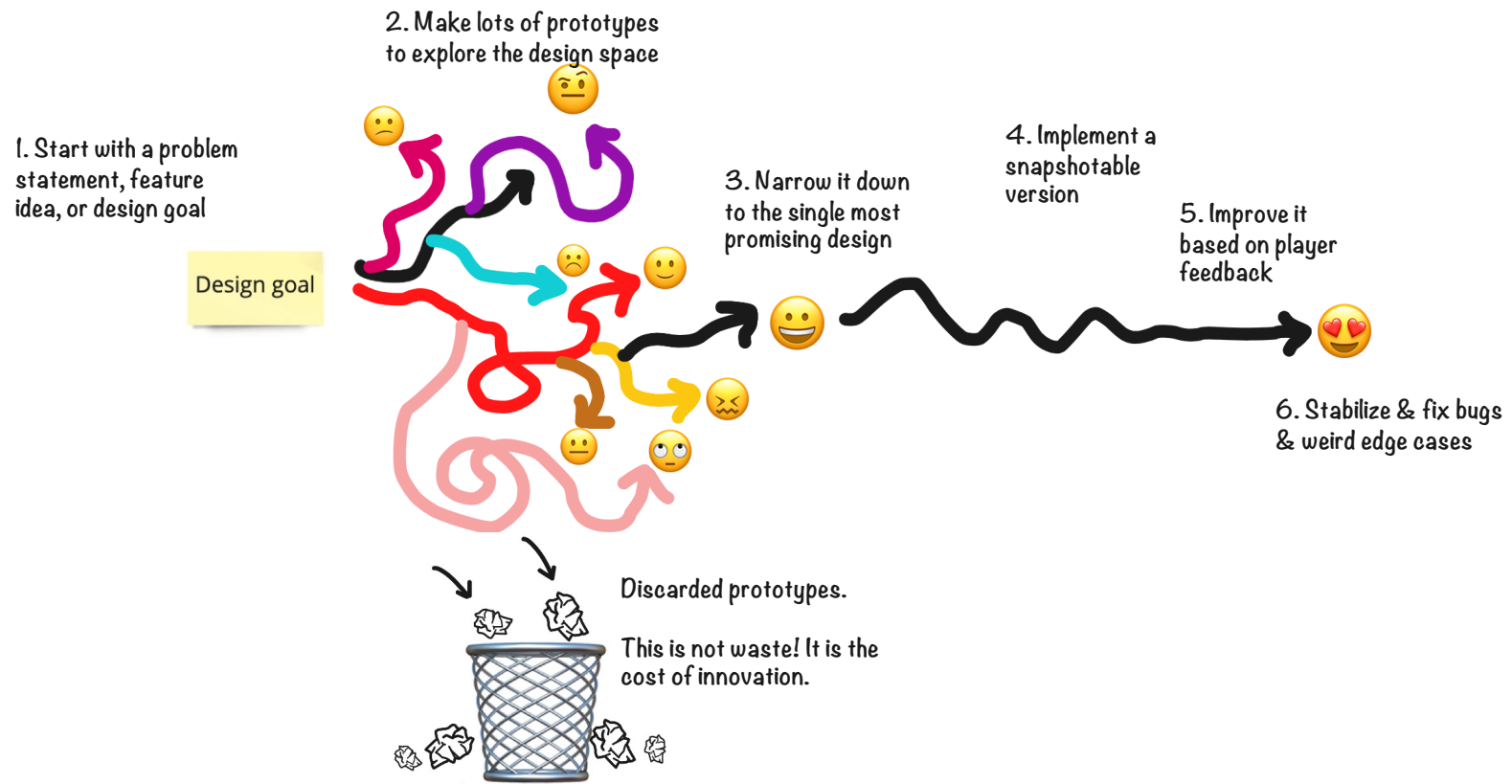
Can fill a cauldron

....

....

The birth of a Minecraft feature

EXAMPLE



Example: Piglins & Hoglins



Piglin



Hoglin

Design goal
Give life to the Nether dimension.
Should feel like an ecosystem!

Idea: Piglins hunt
hoglins for food



Iterating on hunting logic using paper prototyping

Hoglin ==> Piglin

- I never initiate attack against Piglin.
- When hurt, I attack back.
- If I see another Hoglin in battle then join the battle
- When I hurt a piglin, decide whether to continue fighting or flee
- If we don't outnumber Piglins, I flee a random distance, faster than piglin. May move out of combat range.
- If we outnumber piglins, stay and fight.

Piglin ==> Hoglin

- If I haven't seen a hoglin die in a while, and I see one now, then start fighting.
- If I see another Piglin in battle then join the battle
- When hurt, I decide whether to keep fighting or flee.
- If I'm outnumbered, I flee (and stop being aggressive), avoid that hoglin for a while.
- If not outnumbered, I stay and fight.
- If I have crossbow, I will always keep a minimum distance from piglin



In-game prototype gradually refined to production quality



Hypothesis: ear flopping is fun and useful way to convey emotion

Conclusion: Cool but not worth the effort



Idle



Excited



Scared



Angry

Circus piglins

Accidental discovery.
Conclusion: Cute, fun, simple. Keep it!



Testing the limits.....



Sometimes we make prototypes just to learn how stuff works...

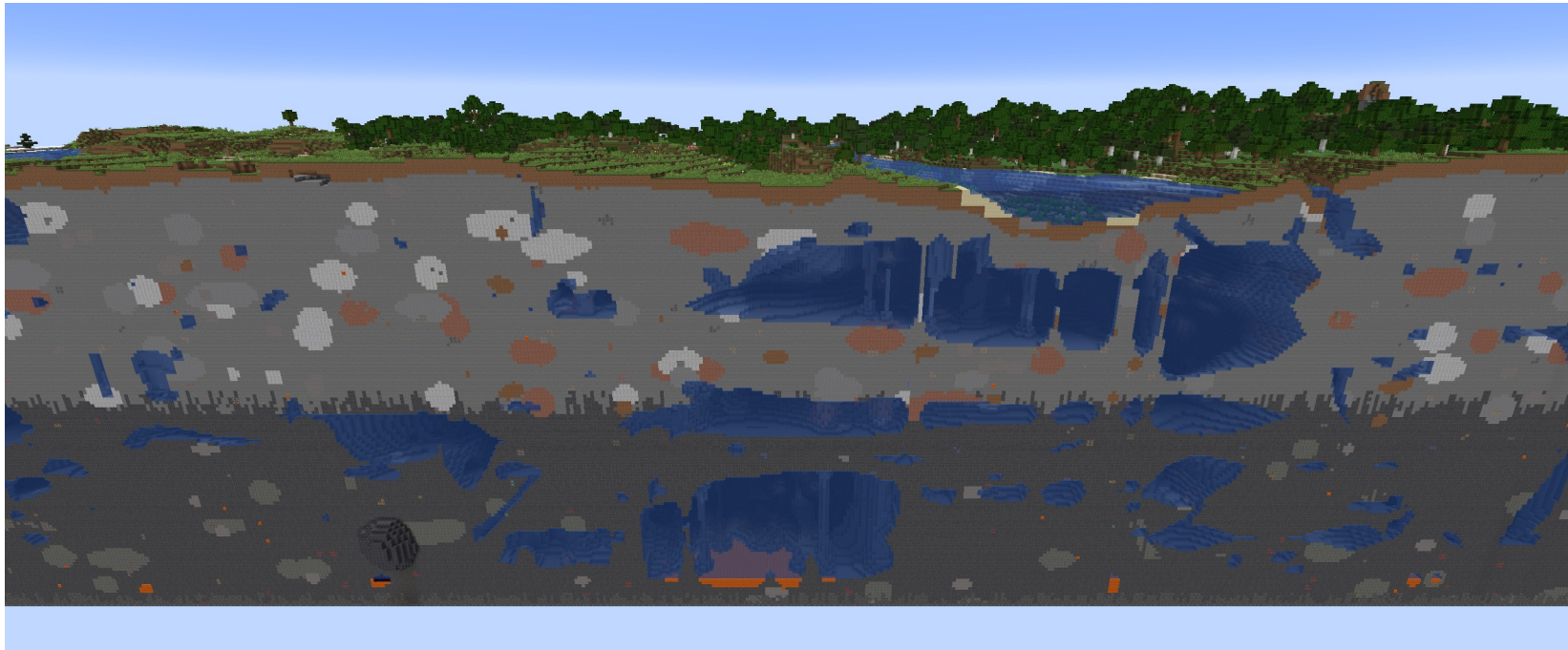


We toned it down a bit



EXAMPLE

Oops! The new caves all get flooded below sea level!

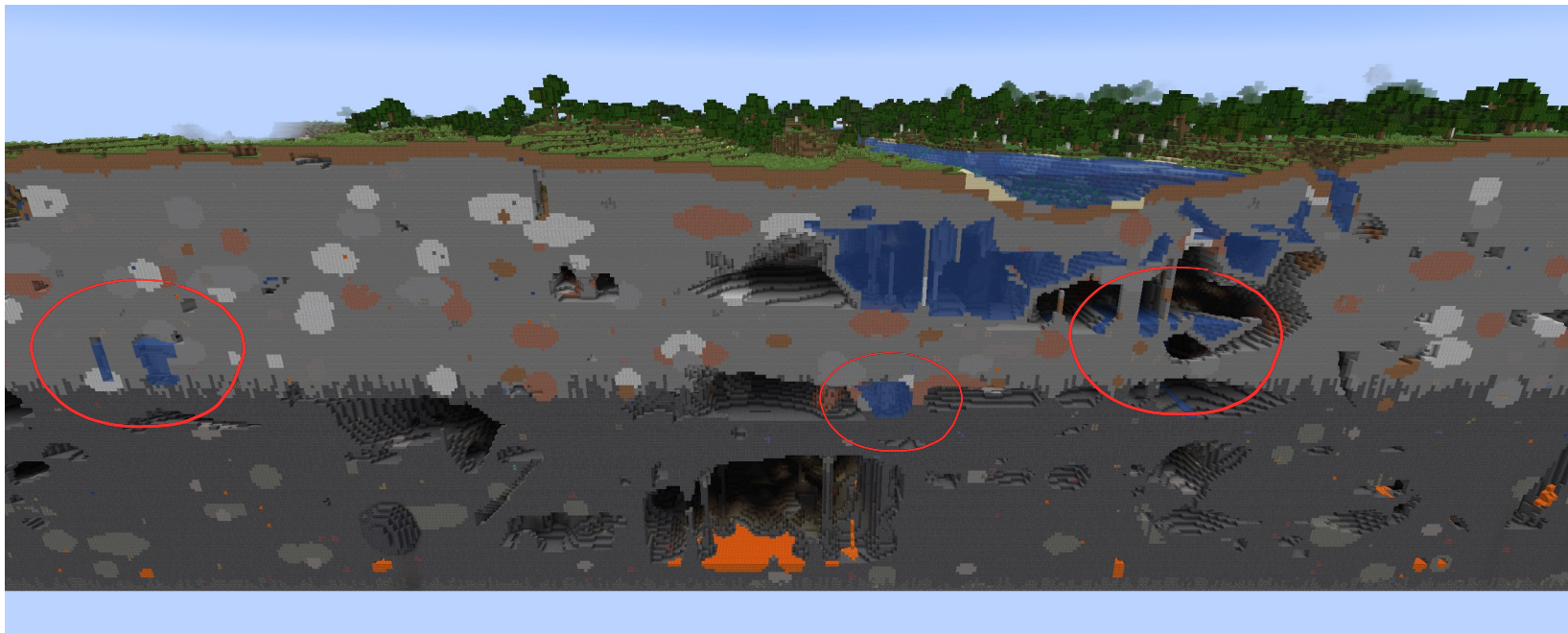


Wait, what if we still allow some caves to be flooded?

Prototype: lower the global sea level and try it out!



Result: Aquifers (local water levels)



Lava aquifers!



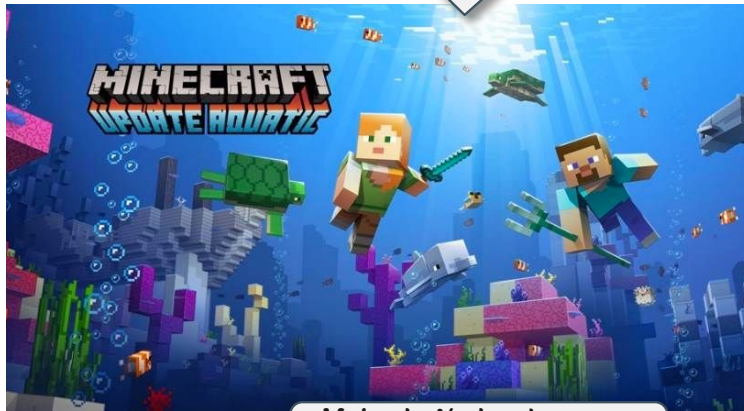
A corkboard with a white sticky note. The sticky note has the text "Slicing the elephant" written on it in a black, rounded font. The corkboard has a brown, textured background.

Slicing the
elephant

Aim for the clouds, but deliver in small steps

2018, Update Aquatic

Make oceans more fun!



2019, Village & Pillage update

Make villages more fun!



2020

Make the Nether dimension more fun!

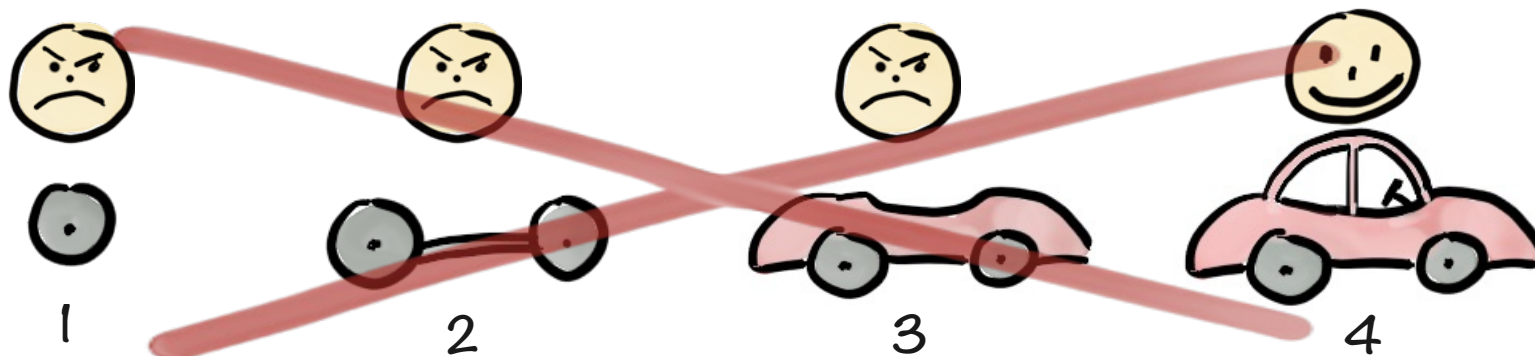


2021

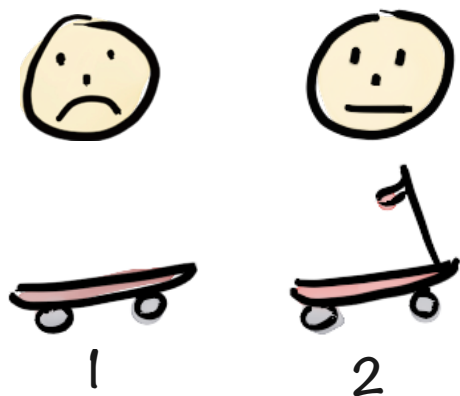
Make the World more fun!



Not like this....



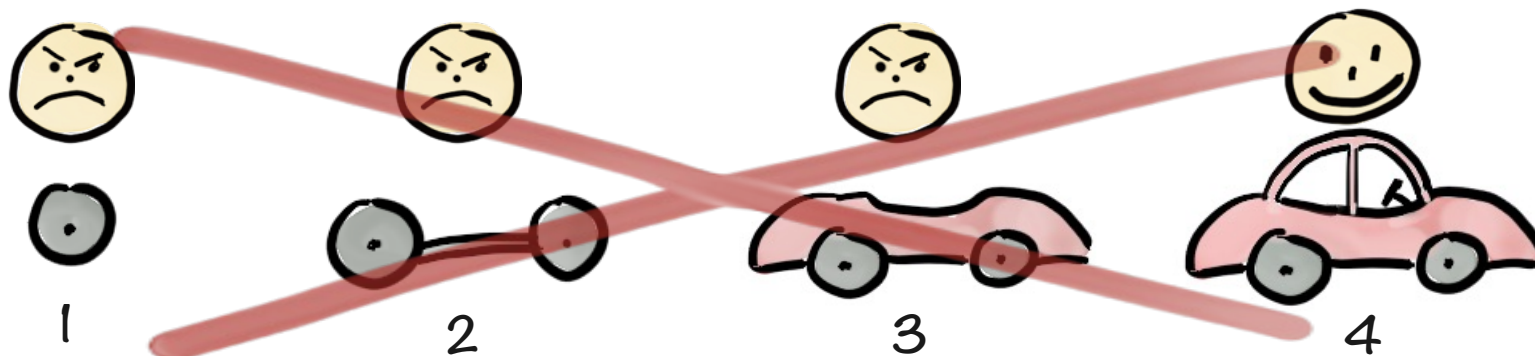
Like this!



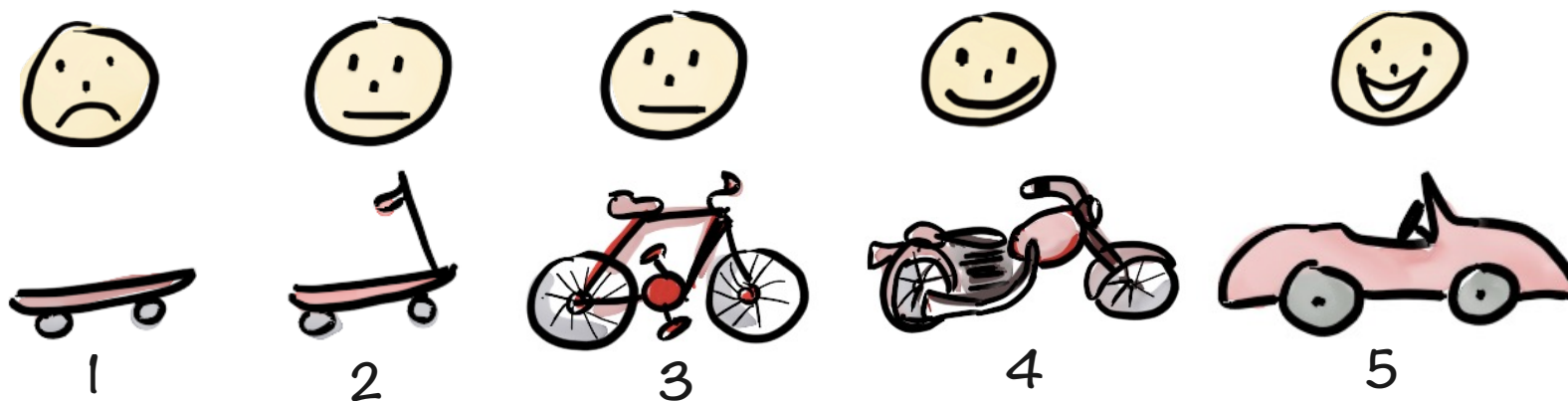


Henrik Kniberg

Not like this....



Like this!



What is your skateboard?



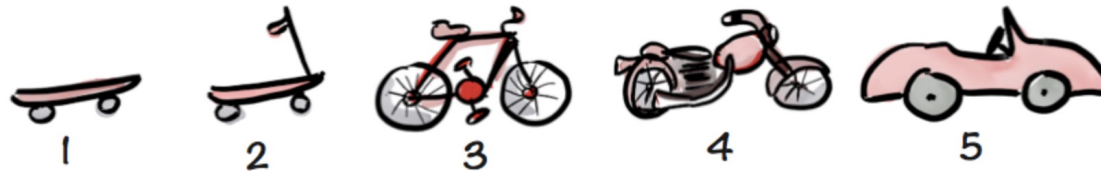
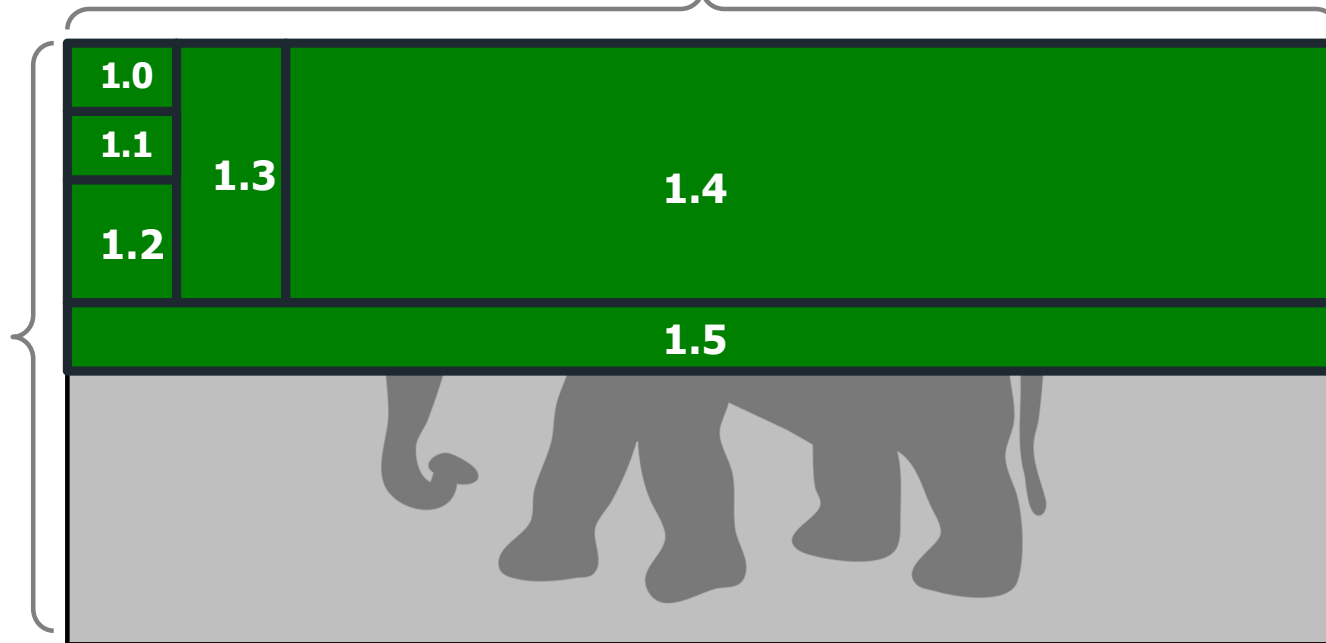
Slice the elephant!

EXAMPLE

Region
Östergötland,
Uppsala, etc



Crime types
(weapon,
drunk driving,
shoplifting, etc)



A corkboard with a white sticky note that says "Focus".

Focus

Demo!

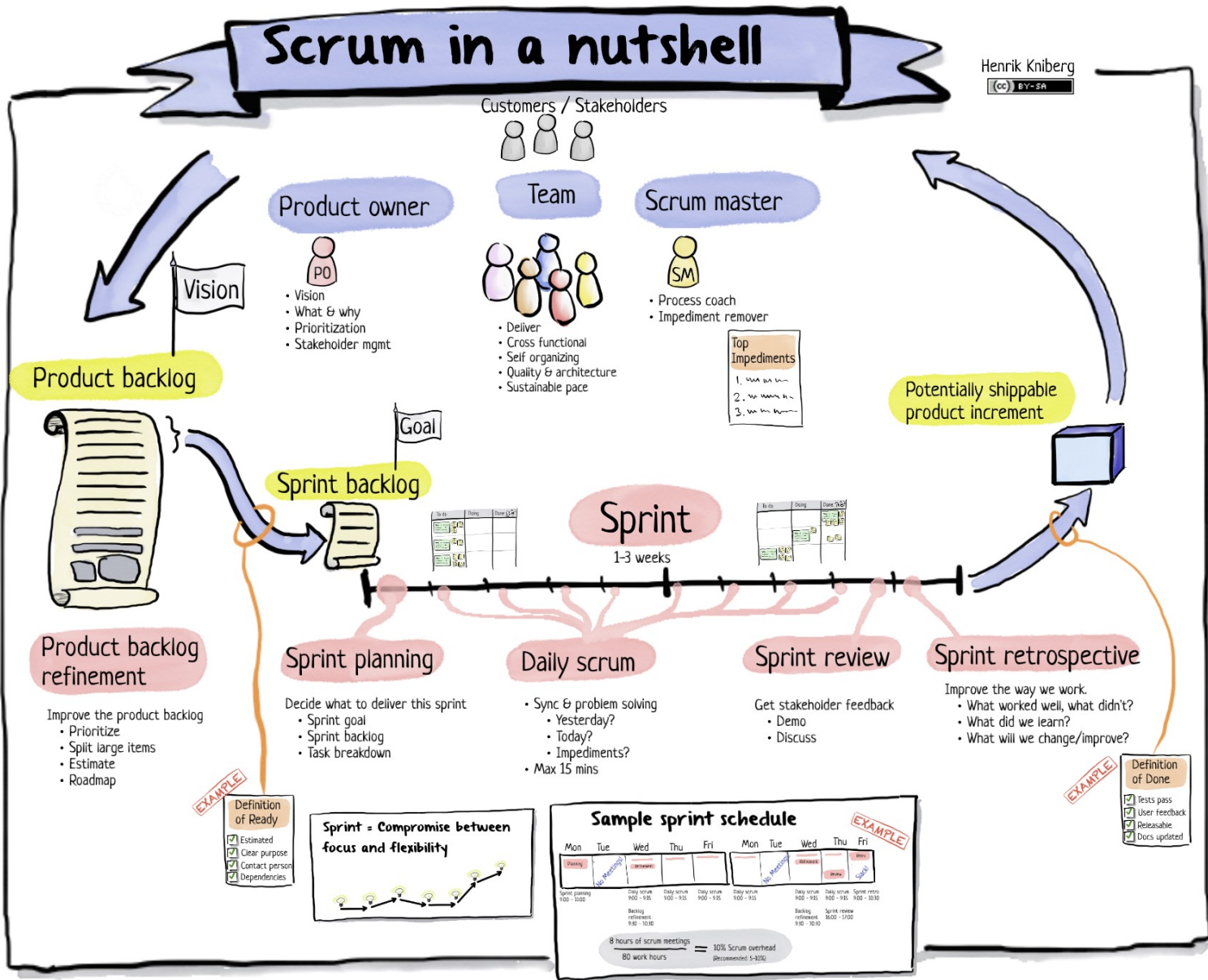


Henrik Kniberg

Scrum = ?

Scrum in a nutshell

Henrik Kniberg
 (cc) BY-SA



Customers / Stakeholders

Product owner



- Vision
- What & why
- Prioritization
- Stakeholder mgmt

Team



- Deliver
- Cross functional
- Self organizing
- Quality & architecture
- Sustainable pace

Scrum master



- Process coach
- Impediment remover

Vision

Product backlog



Product backlog refinement

- Improve the product backlog
- Prioritize
 - Split large items
 - Estimate
 - Roadmap

EXAMPLE

Definition of Ready

<input type="checkbox"/>	Estimated
<input type="checkbox"/>	Clear purpose
<input type="checkbox"/>	Contact person
<input type="checkbox"/>	Dependencies

Sprint backlog

To do	Done	Done %
Task 1		
Task 2		
Task 3		
Task 4		
Task 5		

Sprint

1-3 weeks

To do	Done	Done %
Task 1		
Task 2		
Task 3		
Task 4		
Task 5		

Sprint planning

- Decide what to deliver this sprint
- Sprint goal
 - Sprint backlog
 - Task breakdown

Daily scrum

- Sync & problem solving
- Yesterday?
- Today?
- Impediments?
- Max 15 mins

Sprint review

- Get stakeholder feedback
- Demo
 - Discuss

Sprint retrospective

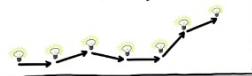
- Improve the way we work.
- What worked well, what didn't?
 - What did we learn?
 - What will we change/improve?

EXAMPLE

Definition of Done

<input checked="" type="checkbox"/>	Tests pass
<input checked="" type="checkbox"/>	User feedback
<input checked="" type="checkbox"/>	Releasable
<input checked="" type="checkbox"/>	Docs updated


Sprint = Compromise between focus and flexibility



Sample sprint schedule

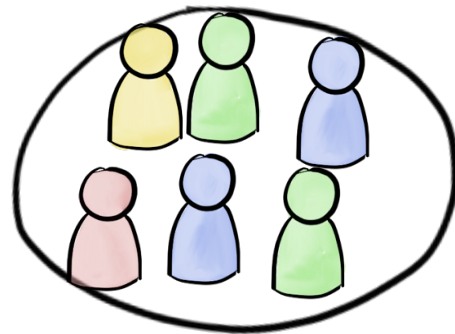
Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	Fri
Start	Start	Start	Start	Start	Start	Start	Start	Start	Start
Sprint planning 9:00 - 10:00	Daily scrum 9:00 - 9:30	Daily scrum 9:00 - 9:30	Daily scrum 9:00 - 9:30	Daily scrum 9:00 - 9:30	Daily scrum 9:00 - 9:30	Daily scrum 9:00 - 9:30	Daily scrum 9:00 - 9:30	Sprint review 9:00 - 10:00	Sprint review 9:00 - 10:00
	Backlog refinement 9:30 - 10:30							Backlog refinement 9:30 - 10:30	

8 hours of scrum meetings = 10% Scrum overhead
 80 work hours (Recommended: 5-10%)

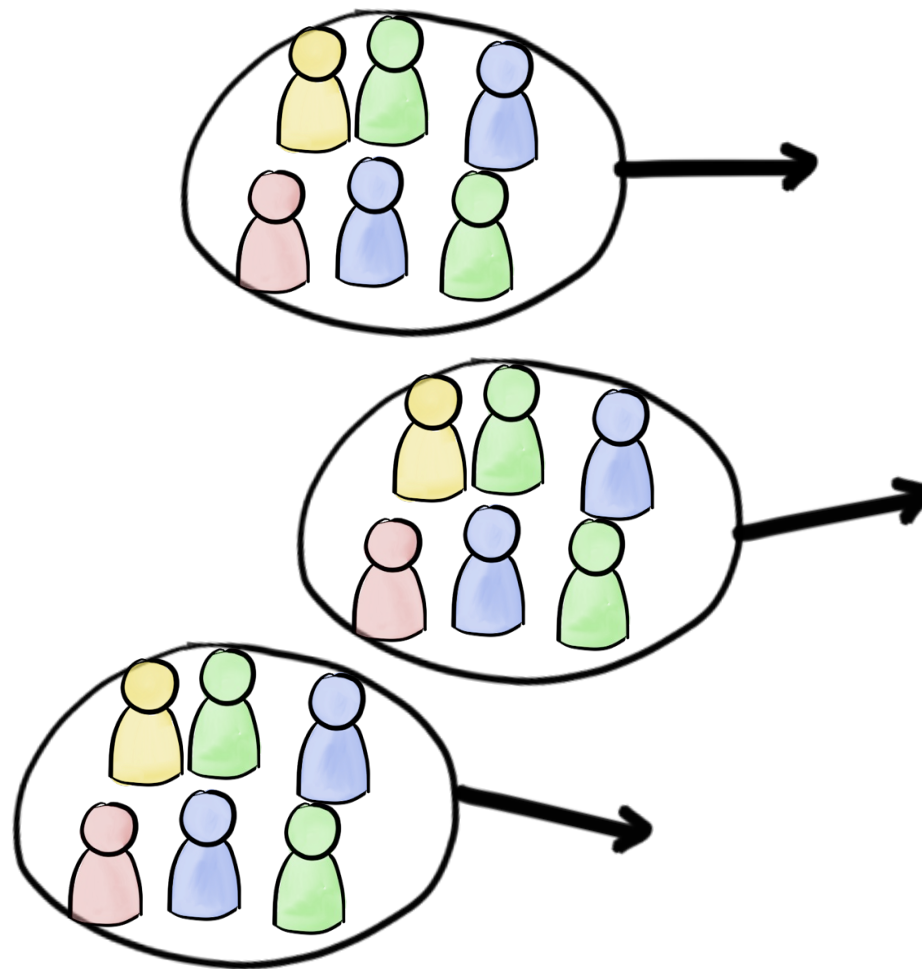
A corkboard with a white sticky note. The sticky note is tilted and contains the text "How to avoid chaos with self-organizing teams" written in a bold, black, sans-serif font.

How to avoid
chaos with self-
organizing teams

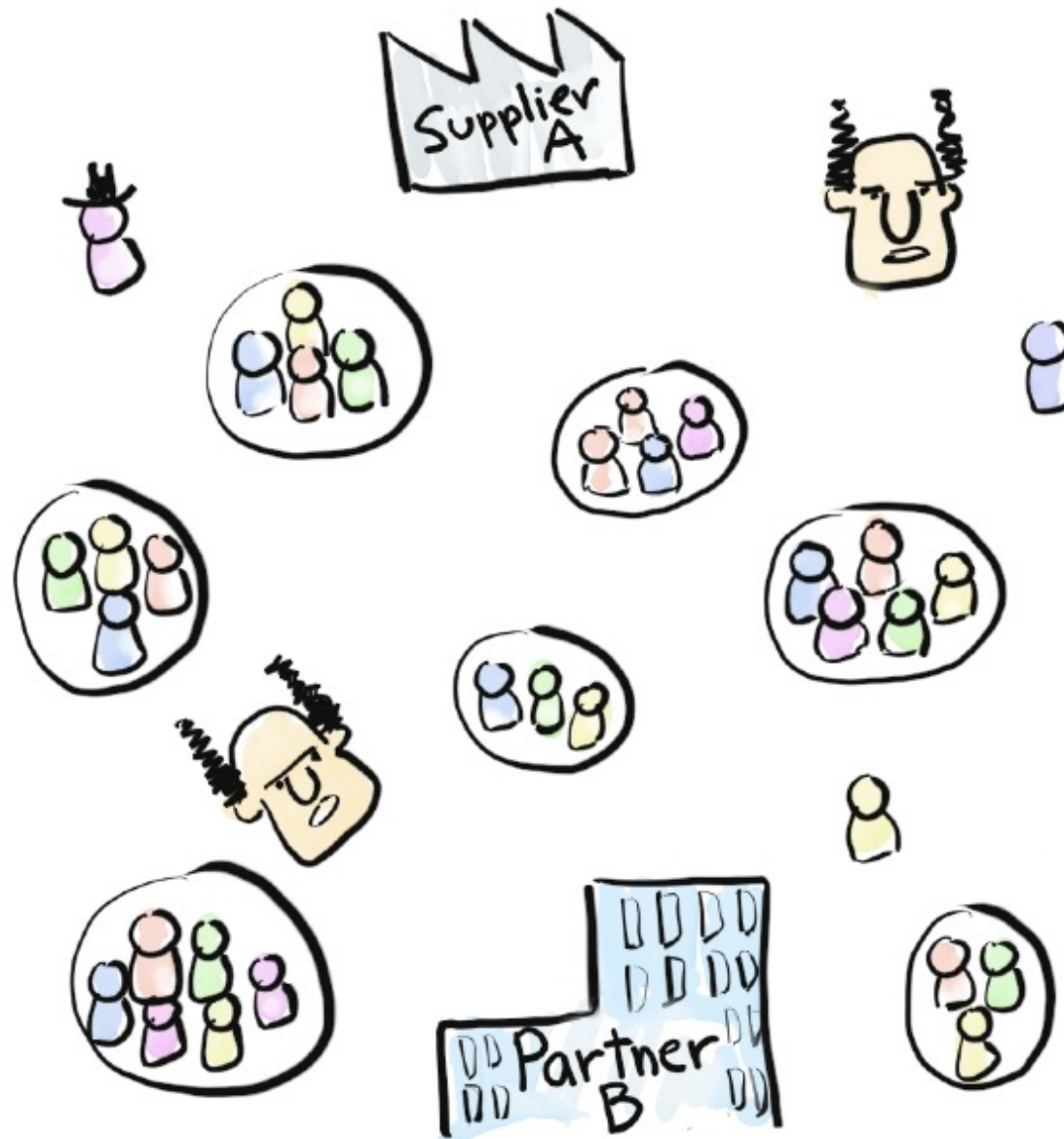
Not too hard



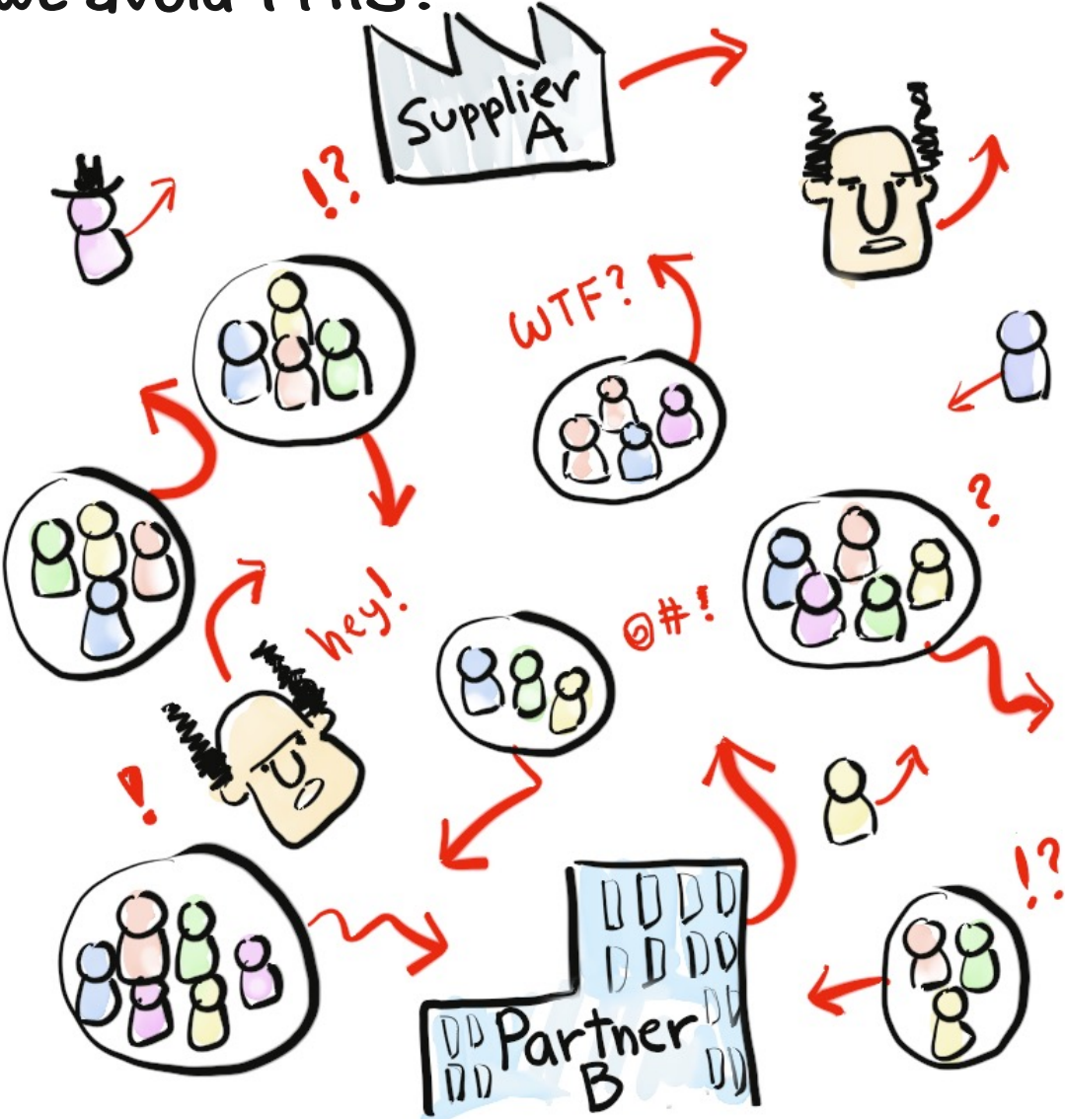
A bit trickier



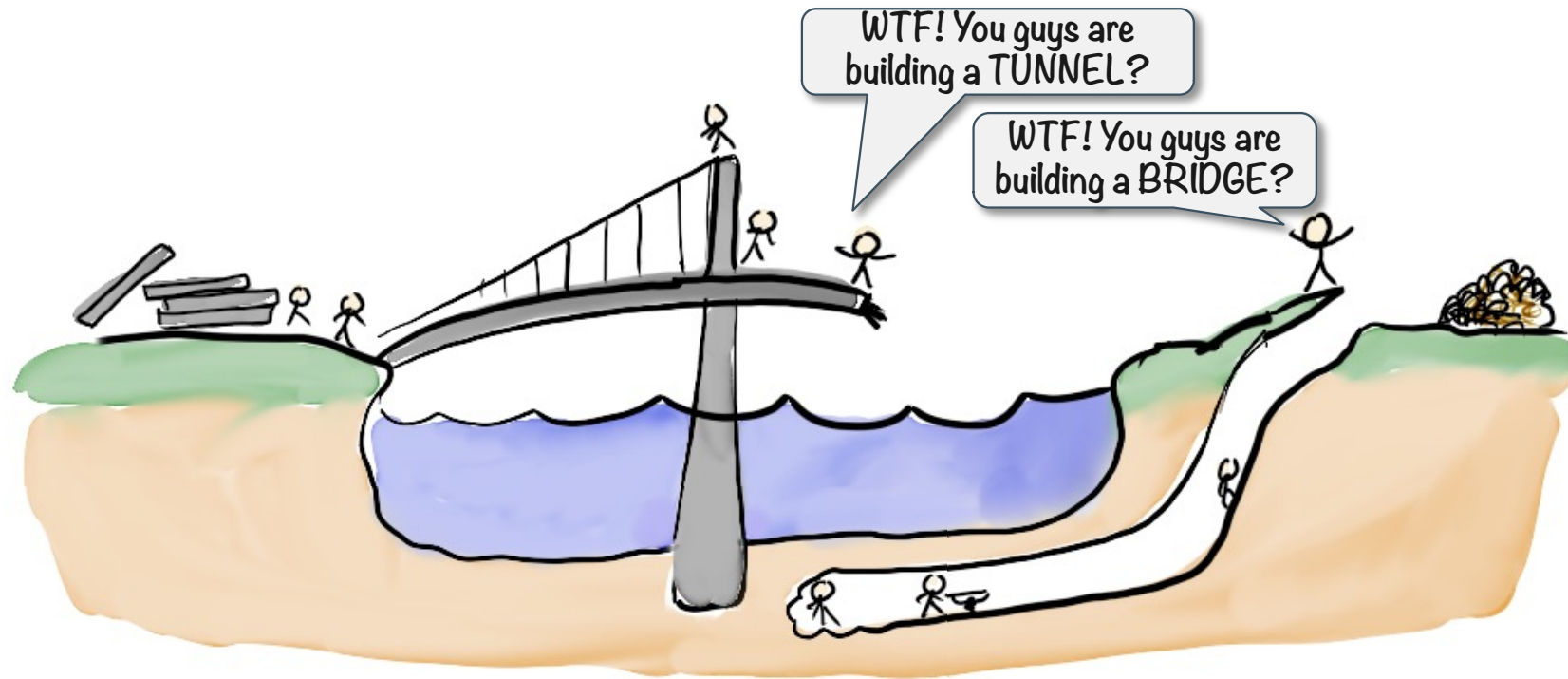
Hard!



How do we avoid THIS?



Suboptimization

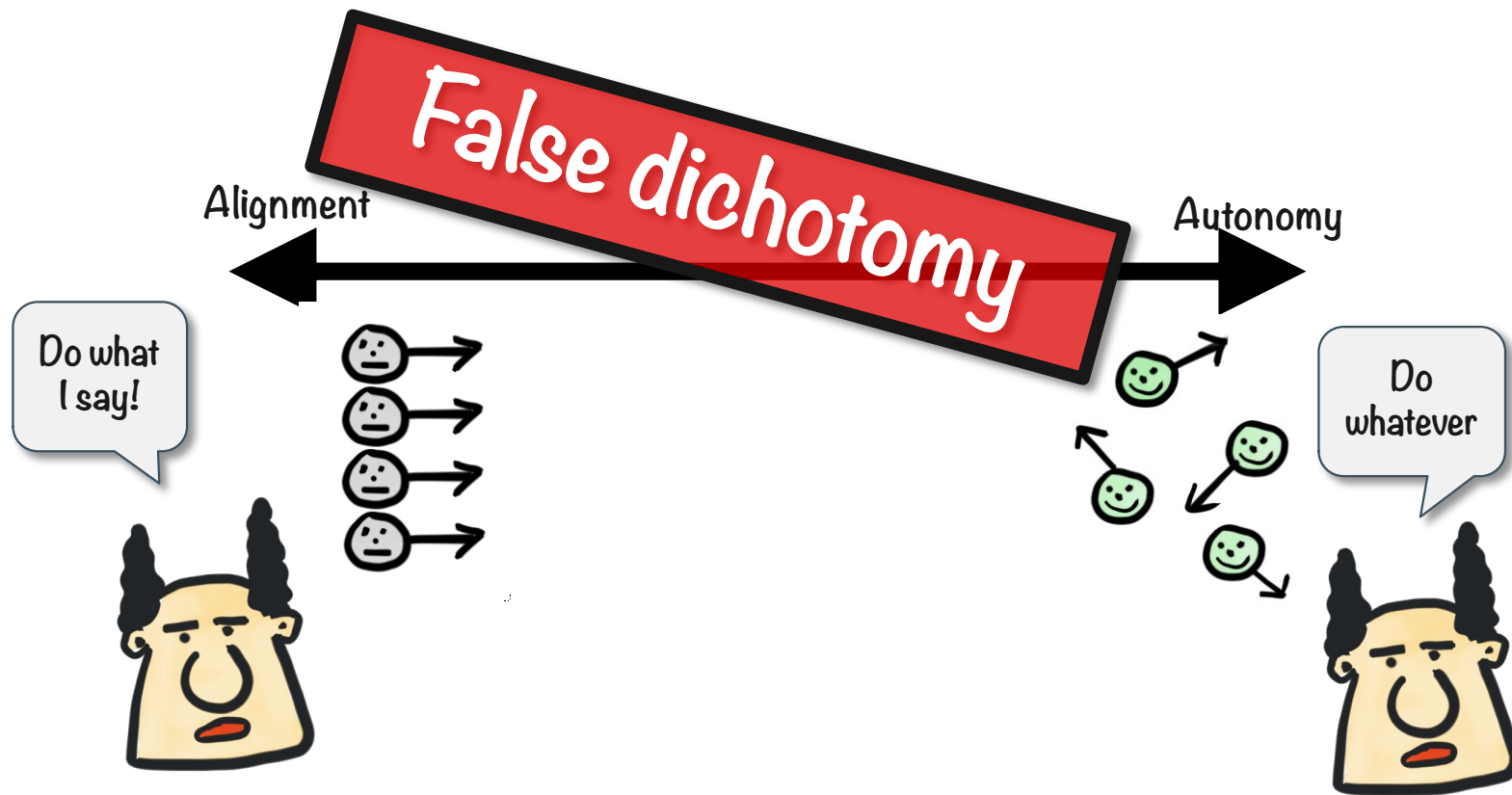


Common reaction

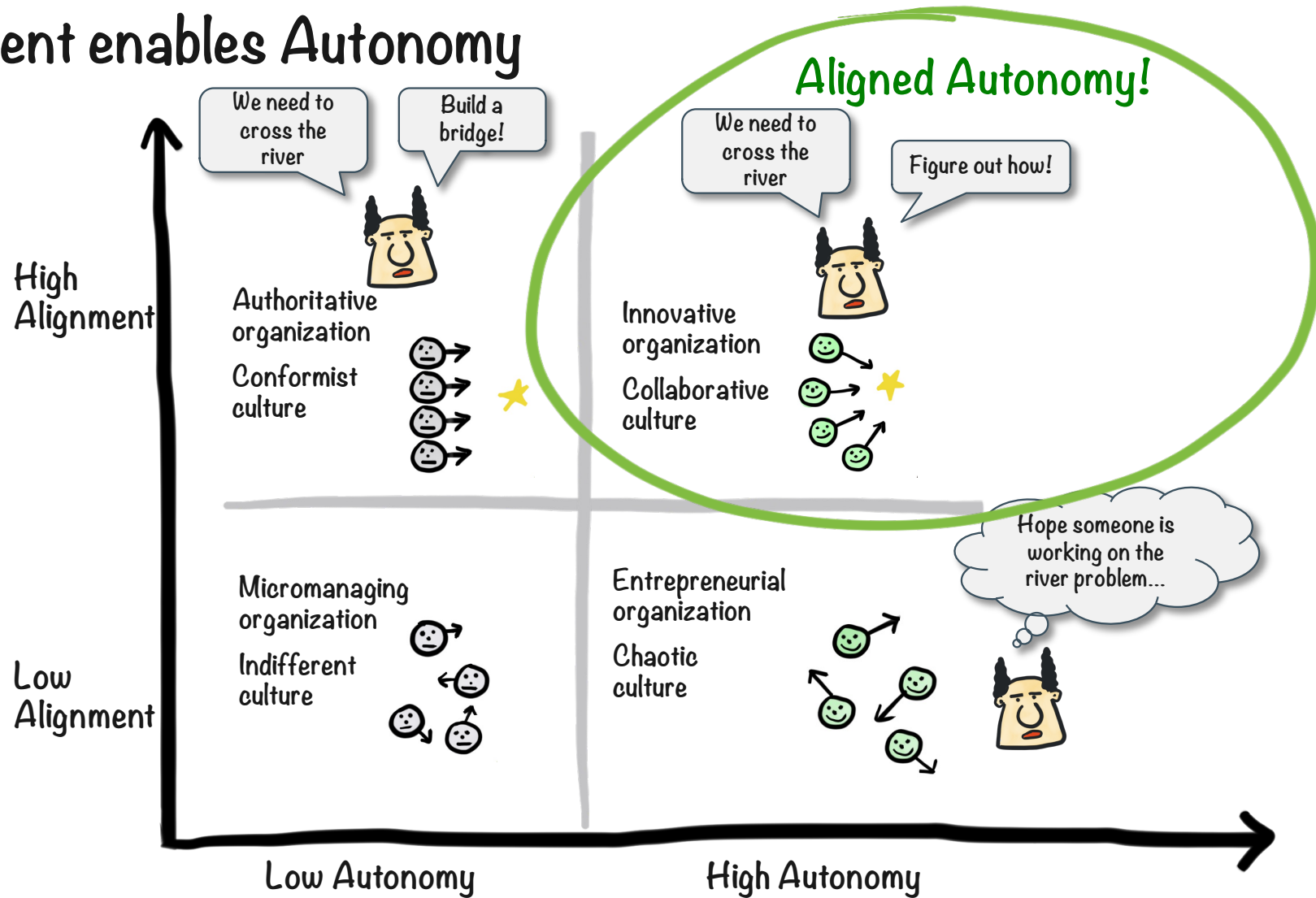


Someone needs to
take charge!

Alignment & Autonomy



Alignment enables Autonomy



Leader's job:
Explain what problem needs to be solved.
And Why.



Discovery Weekly

EXAMPLE



I would have killed it. I never really saw the beauty of it.

All of a sudden they shipped it, and it turned out to be something really successful.

It's one of the most loved product features that we have.

MADE FOR HENRIK

Discover Weekly

Your weekly mixtape of fresh music. Enjoy new discoveries and songs chosen just for you. Updated every Monday, so save your favorites!

Made for Henrik Kniberg by Spotify • 30 songs, 2 hr 32 min

PAUSE

FOLLOWER 1

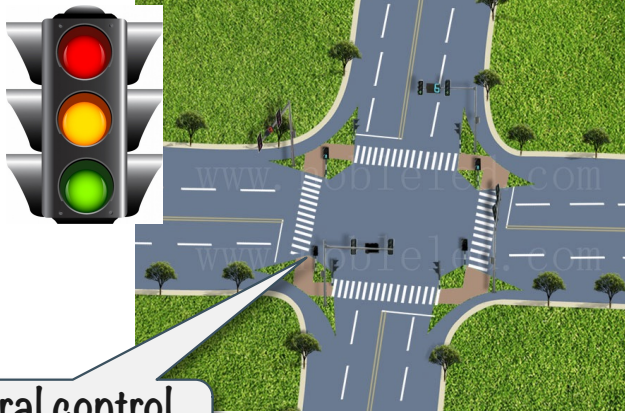
Filter Download

TITLE	ARTIST	ALBUM	
Cinnamon And Clove	Zoot Sims	Zoot Sims Plays ...	3 days ago
Do You Feel Like I Feel	Nicola Conte	Love & Revolution	3 days ago
The Traveller	Jens Winther Gr...	The Planets	3 days ago
I Never Can Say Goodbye	Tiny Little Bigba...	I Never Can Say ...	3 days ago
Paris Blues	Terry Callier	Lookin Out	3 days ago

A photograph of a brown corkboard with a white rectangular sticky note attached to it. The sticky note is slightly tilted and has the word "Leadership" written on it in a bold, black, sans-serif font. The corkboard has a natural, textured appearance with small holes and a warm brown color.

Leadership

Traffic signals



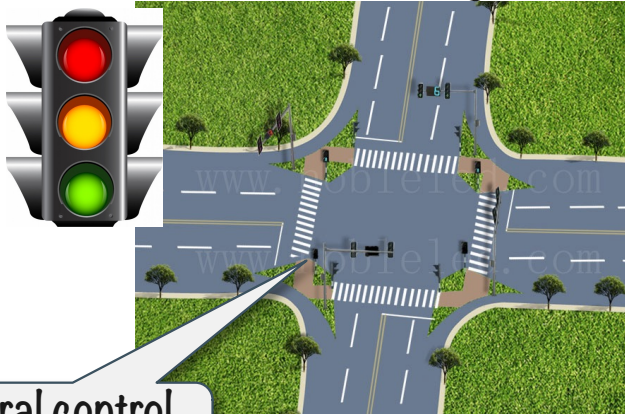
Central control system

Roundabout



Trust,
transparency,
self-organization

Traffic signals



Central control system

Trust, transparency, self-organization

Faster flow, Fewer accidents

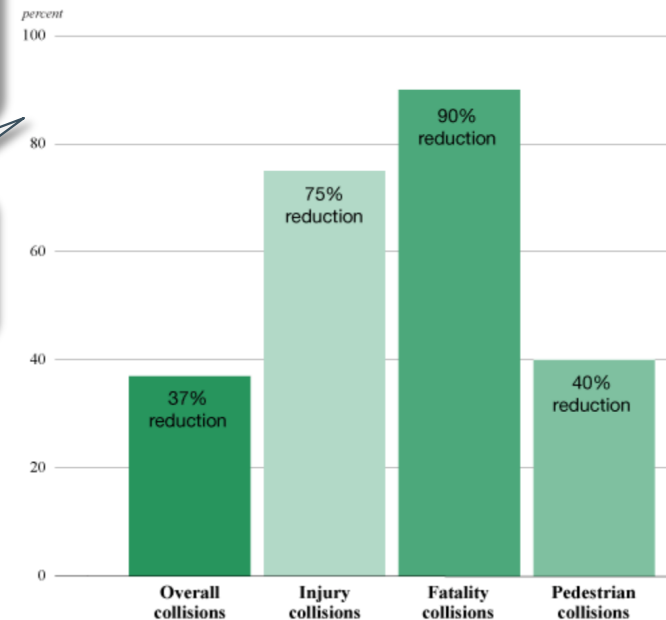
As leader:

Don't be the traffic light.

Be the roundabout designer

- Design the system.
- Observe the system.
- Improve the system based on feedback

Roundabout



Source: Federal Highway Administration and Insurance Institute for Highway Safety (FHWA and IIHS)

Source: Federal Highway Administration - <http://www.wsdot.wa.gov/Safety/roundabouts/benefits.htm>

A photograph of a corkboard with a white sticky note pinned to it. The sticky note is slightly tilted and has the letters 'AI' written on it in a black, hand-drawn font. The corkboard has a natural, textured brown color.

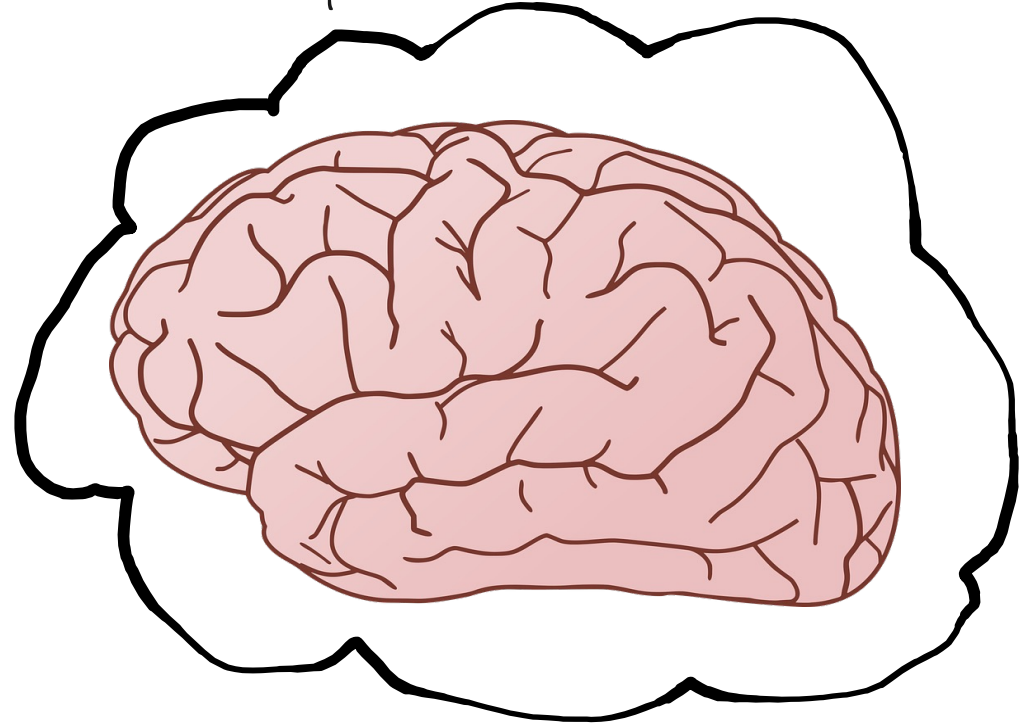
AI

What's going on with AI

What we're used to
Computers execute instructions



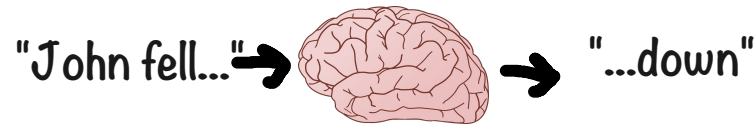
The new thing
Computers can learn and think!



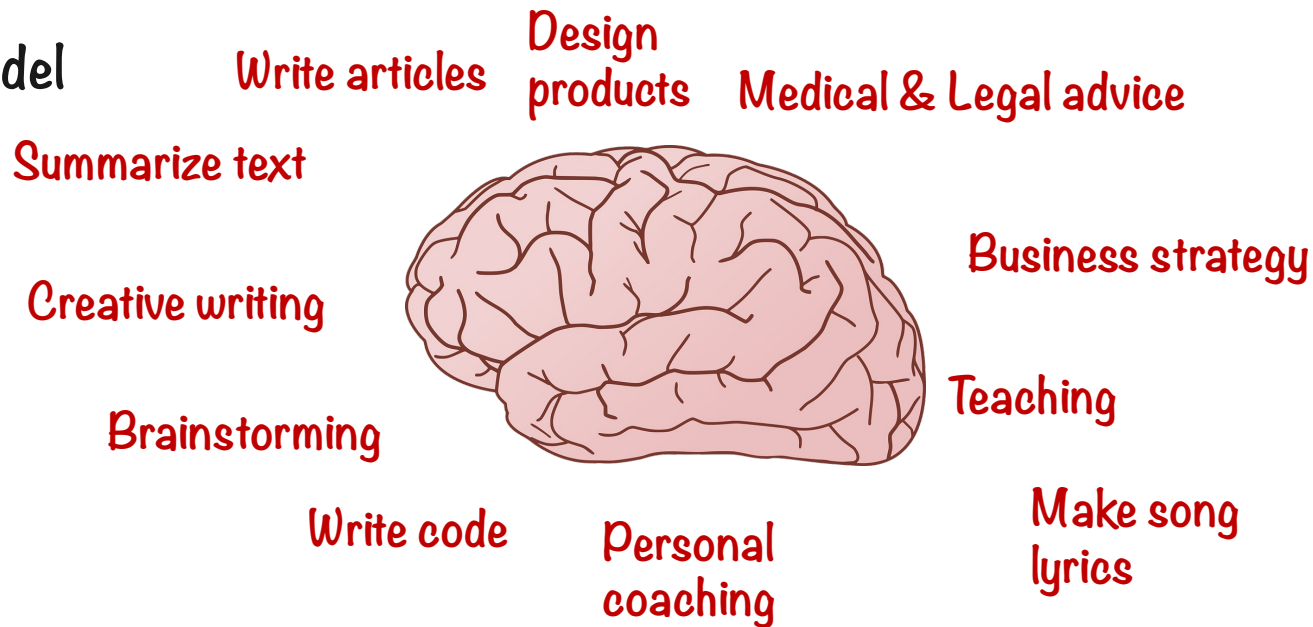
As models get bigger, intelligence emerges

Small model

Predict the next word

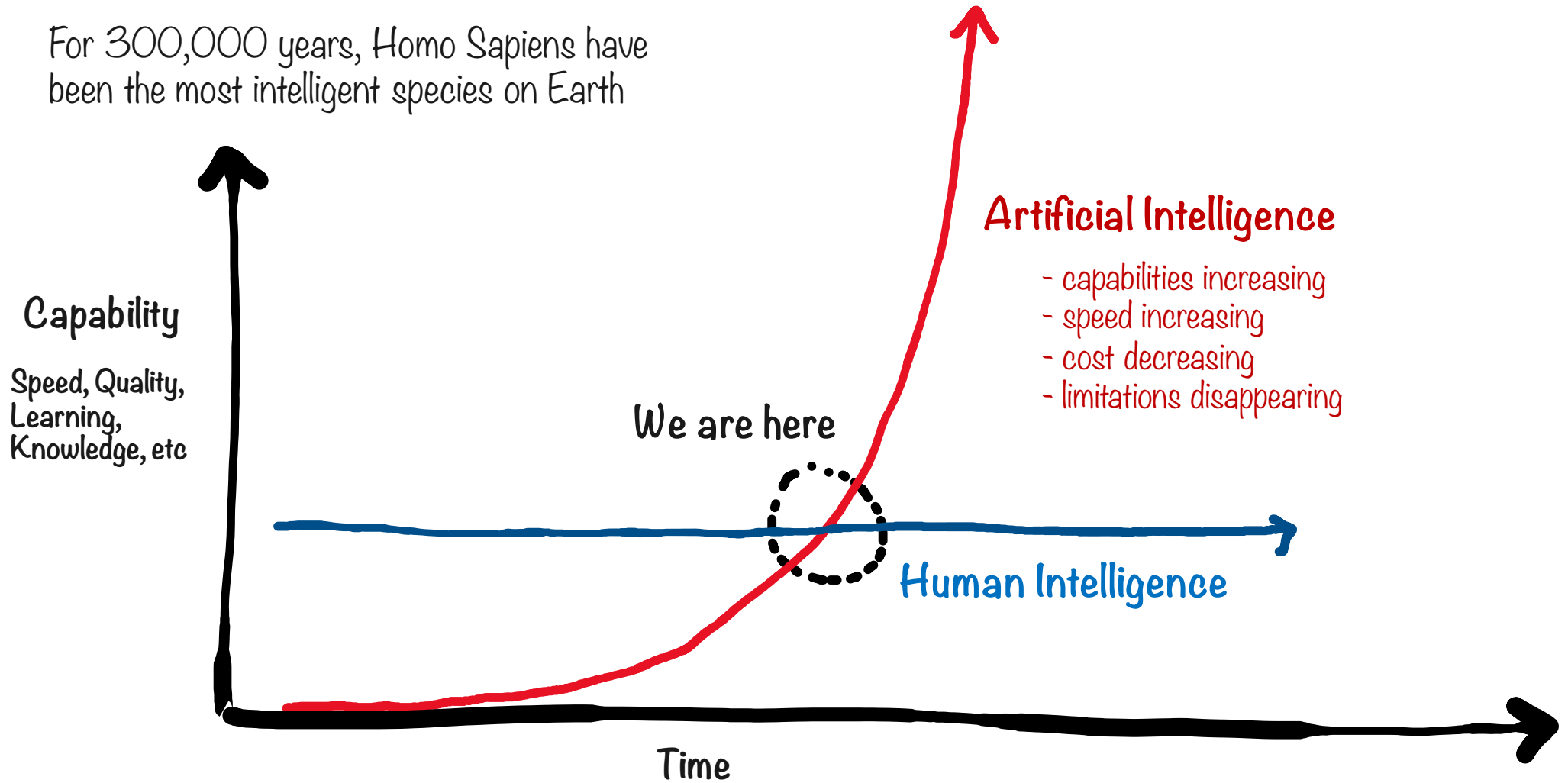


Big model



Why this is a big deal

For 300,000 years, Homo Sapiens have been the most intelligent species on Earth



AI radically changes the nature of product development

- Most knowledge work (code, docs, plans, brainstorm, etc) done faster and better by AI.
- AI + Human = best combination

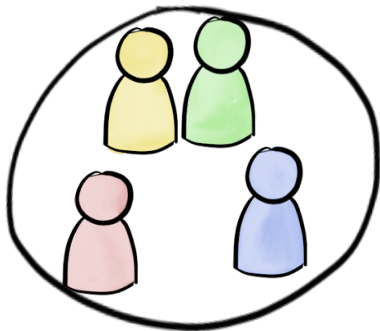
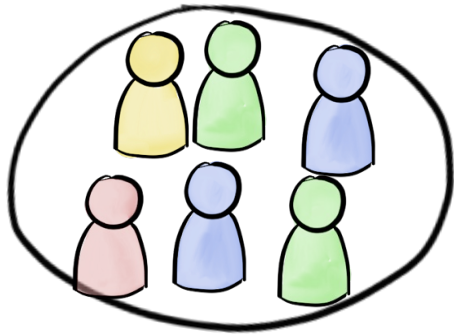
Agile mindset + Prompt Engineering = Essential skills in the Age of AI

- Phrase a clear goal
- Slice a problem into smaller steps
- Iterative, incremental delivery
- Evaluation / feedback

My prediction & observation

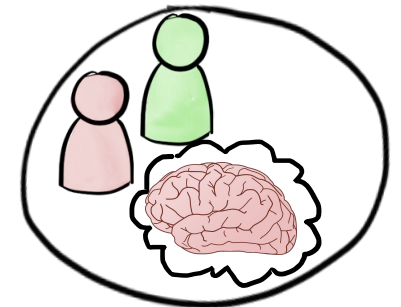
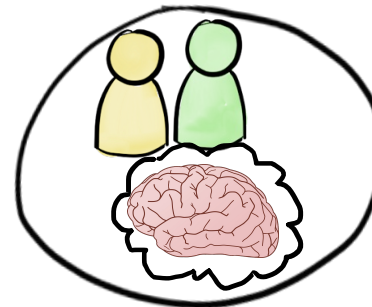
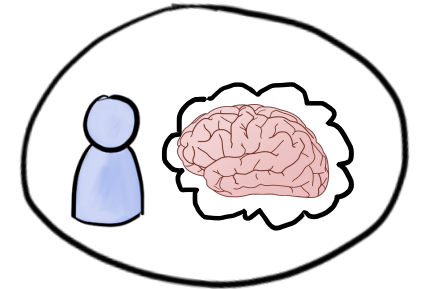
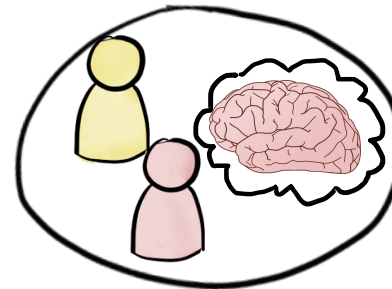
Before

Agile teams of 3-7 people

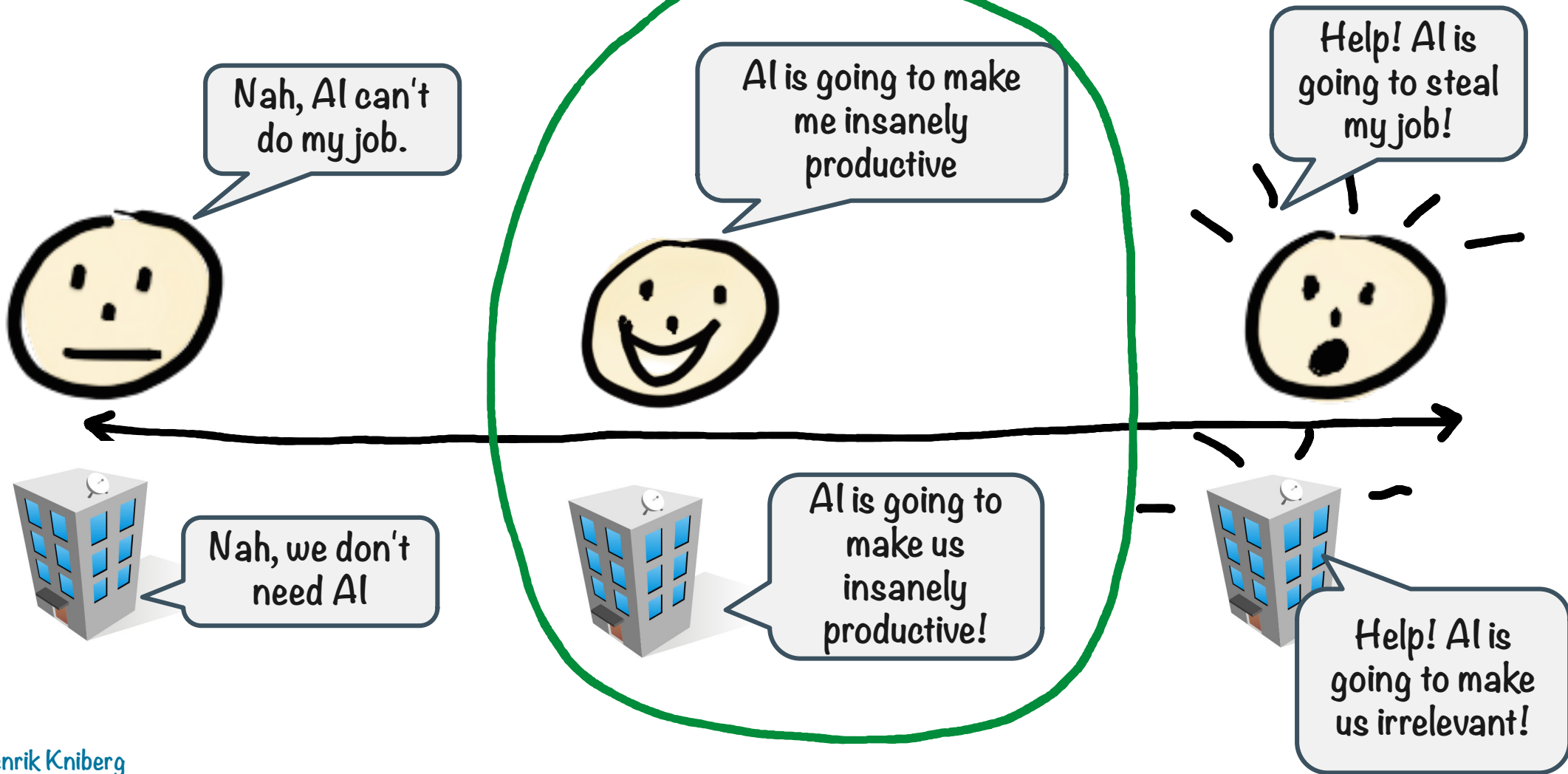


Near future

Agile teams of 1-2 people + AI



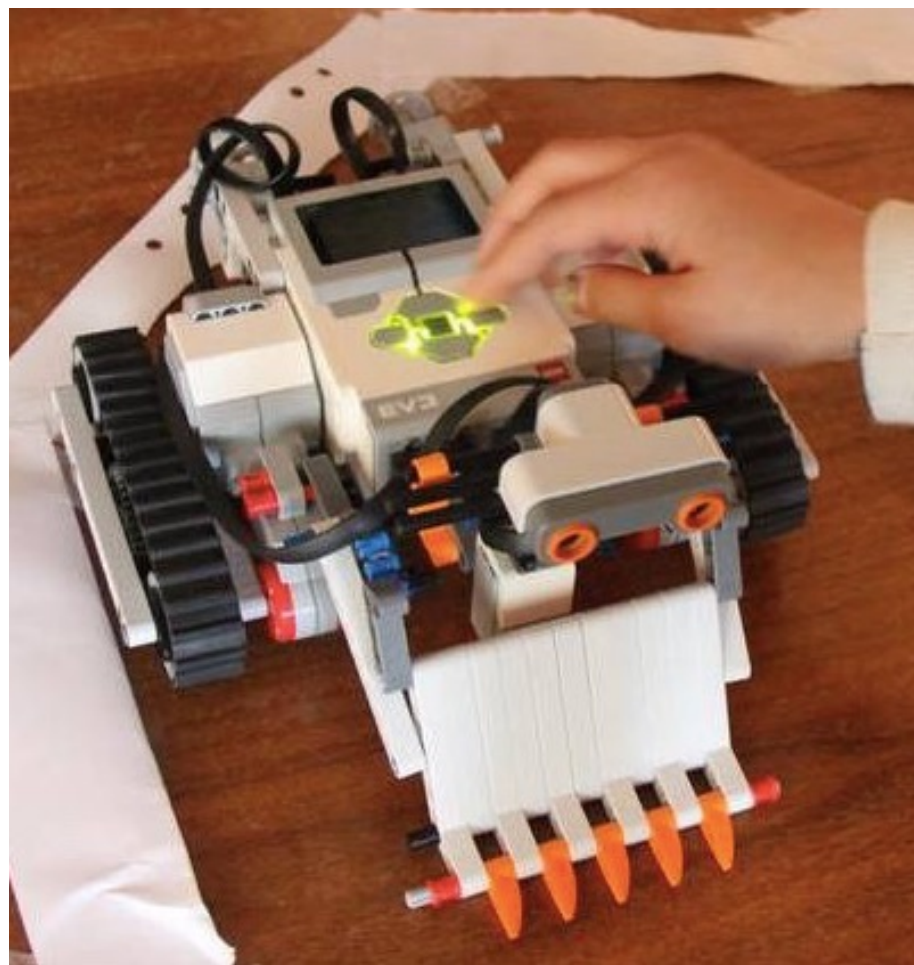
Mindset

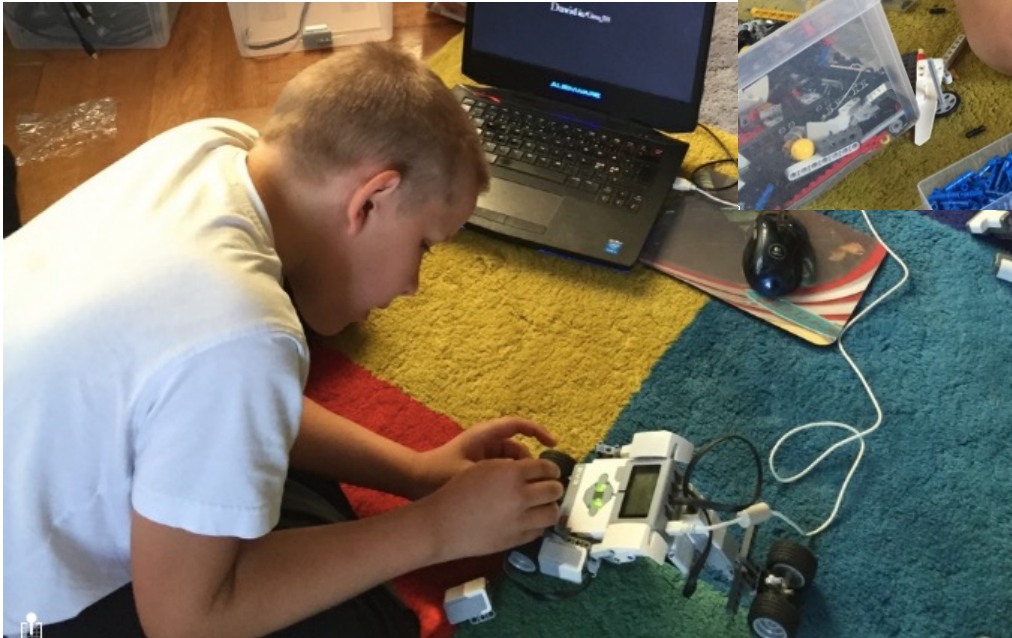


A corkboard with a white sticky note. The sticky note is tilted and has the text "The story of Robit" written on it in a black, handwritten-style font.

The story of
Robit

Robot





Henrik Kniberg

2 kids & rookies with very little robot experience...

... vs ten teams of adult geeks and programmers



LEGO® MINDSTORMS® COMPETITION

Do you have what it takes to fight and win the competition of the future? - Then sign up and enter the LEGO® MINDSTORMS® Robotic competition at GOTO Copenhagen 2015 and win fabulous prizes on top of the fame and glory!

How to enter the game?

1. Form a team of 2-5 members (NB: Only conference attendees can join the competition)
2. Build your own intelligent, autonomous robot before the conference (use your own LEGO® MINDSTORMS® Robotic Toolkit or borrow one for free when registering to the competition)
3. Pitch it against the robots from other teams at the GOTO Conference Dinner, Monday October 5, 19:30-22:30
4. There will be prizes for the winning team

GOTO Cph 2016

GOTO Copenhagen 2016 will take place in Bella Center. Mark the days already: **October 3-6, 2016**

Said about GOTO

We have collected quotes from blogposts and articles etc. about GOTO Copenhagen 2015 on a single page

GOTO Community

Join the worldwide GOTO Community:



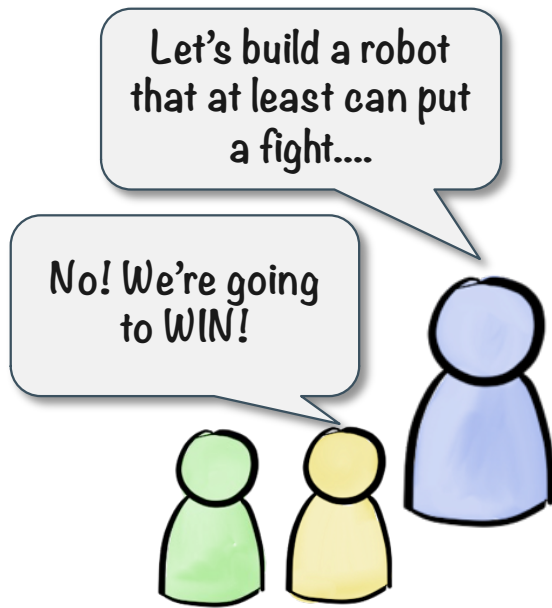
Platinum sponsor



I ♥ GOTO

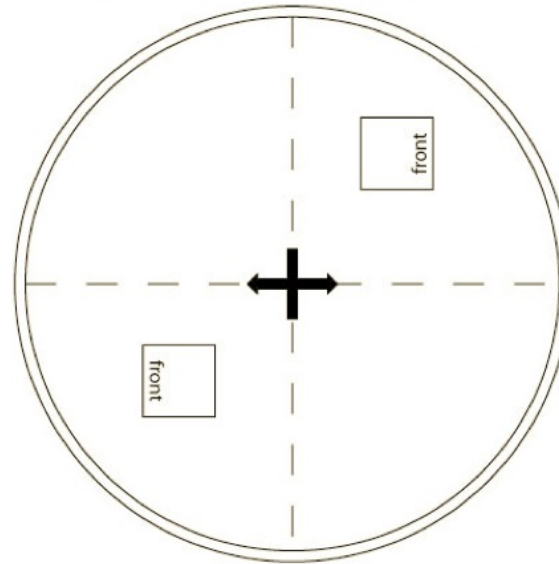
"GOTO is definitely the best place to get a feeling for the newest trends. If there was just one conference I would attend to keep up with what is

Step 1: Set a clear goal (define “success”)



The Rules

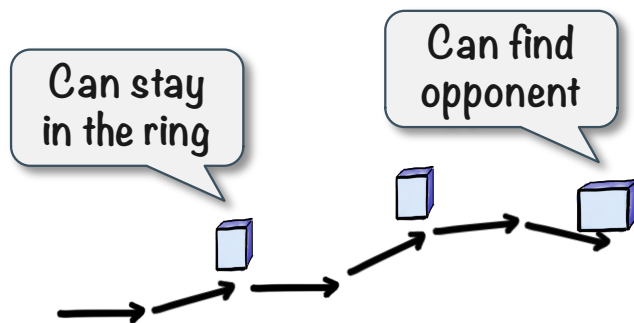
1. The two sumo robots are placed as shown in the picture below with the front pointing away from each other.
2. On the judge signal the sumo robot's program is started. The robot have to wait 3 seconds before it starts being active.
3. A match lasts at most 2 minutes.
4. A sumo robot wins, if the other sumo robot is knocked over or pushed outside the ring. A sumo robot is outside the ring, if it touches the surface that supports the ring. If a sumo robot drives outside the ring by itself the sumo robot has lost.
5. If none of the sumo robots have left the ring or has been knocked over within the 2 minutes the match ends with a tie. If both sumo robots leaves the ring at the same time the match also ends with a tie.
6. The winner of a match receives 2 points, while both teams receives 1 point if the match ends in a tie, and the loser of a match receives 0 points.
7. A sumo tournament can be run with groups, sessions, semifinals, multiple rounds per match, etc, depending on the number of teams participating.



Step 2: Build a Minimum Viable Robot (Earliest Testable Robot)



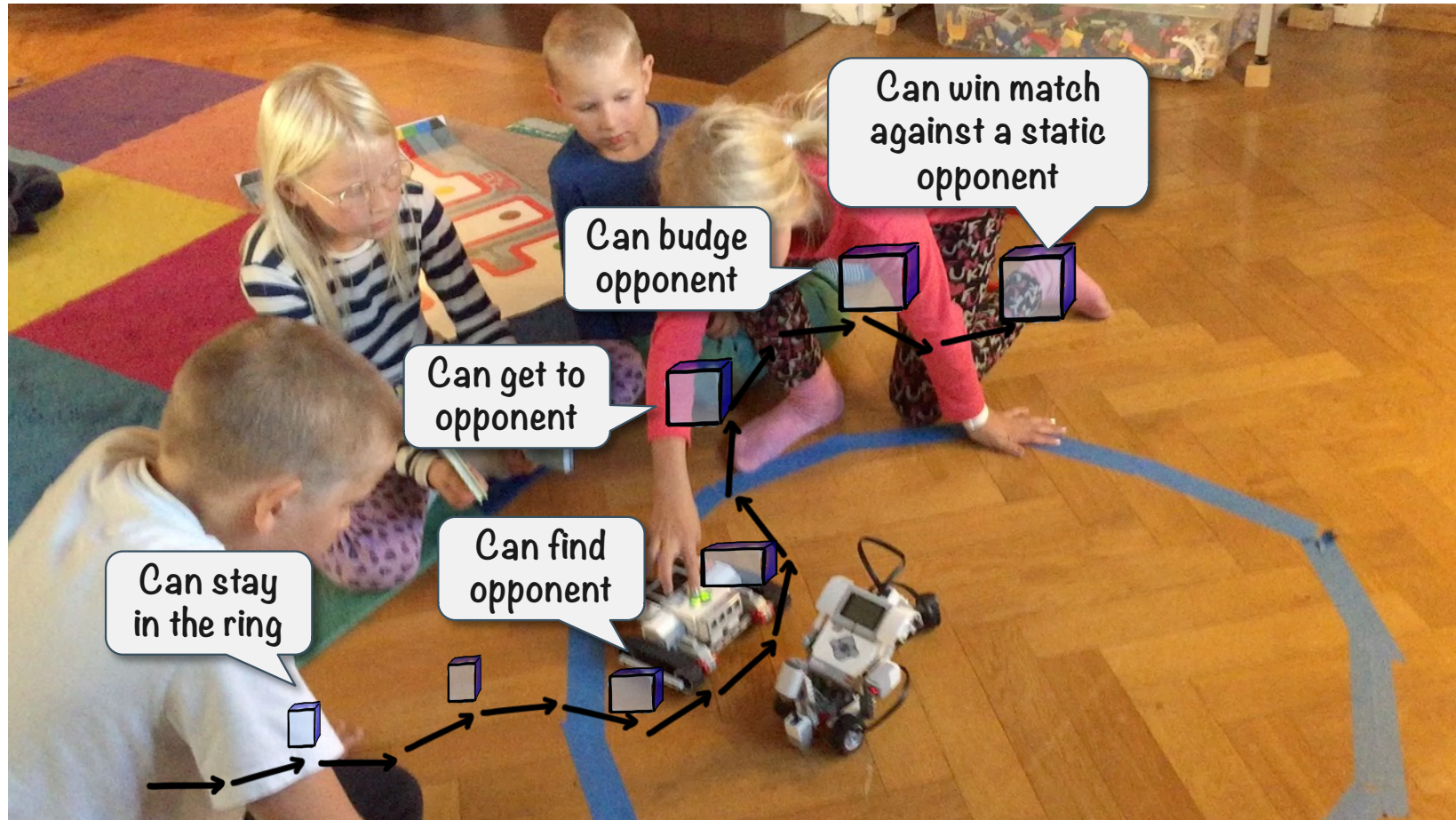
Aim for the clouds,
but deliver and test in small steps



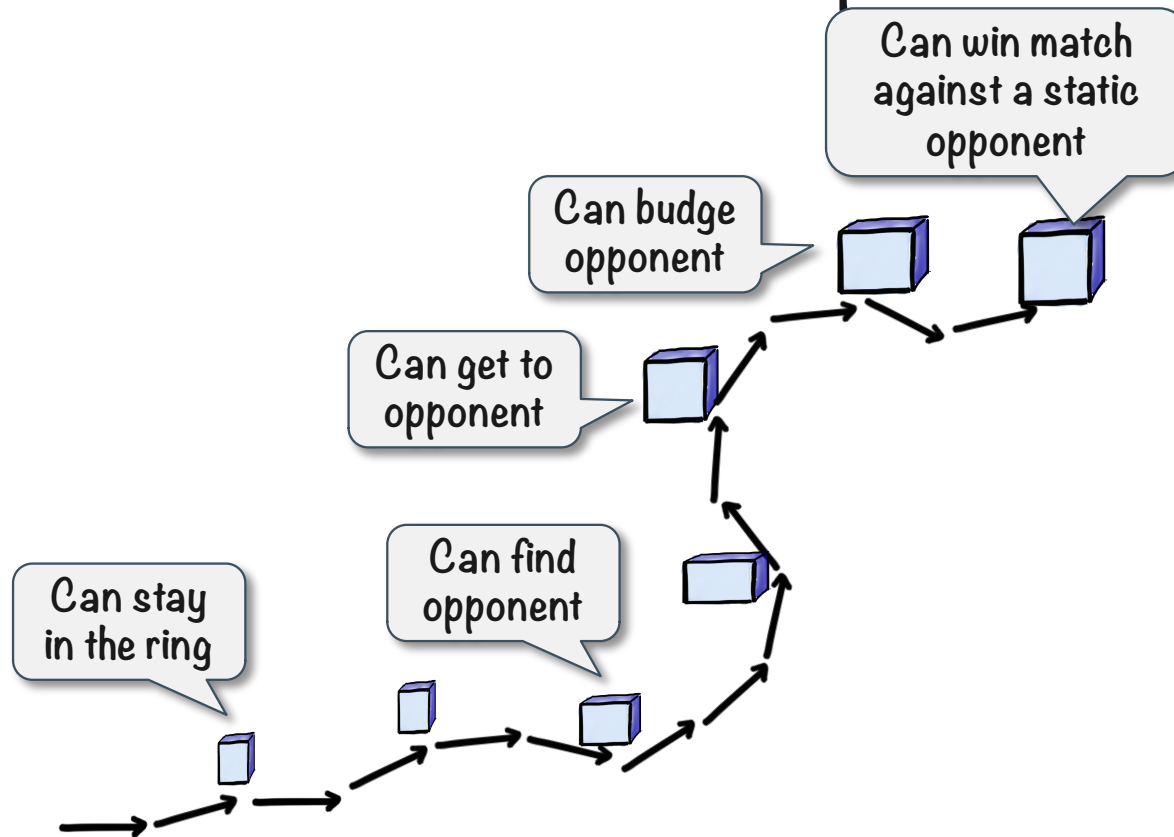
Step 3: Build an opponent to practice against



Field test, Field test, Field test



Aim for the clouds,
but deliver and test in small steps



Lifter? Or no lifter?

Hypothesis:

- Mechanical Lifter can help us win

Experiment:

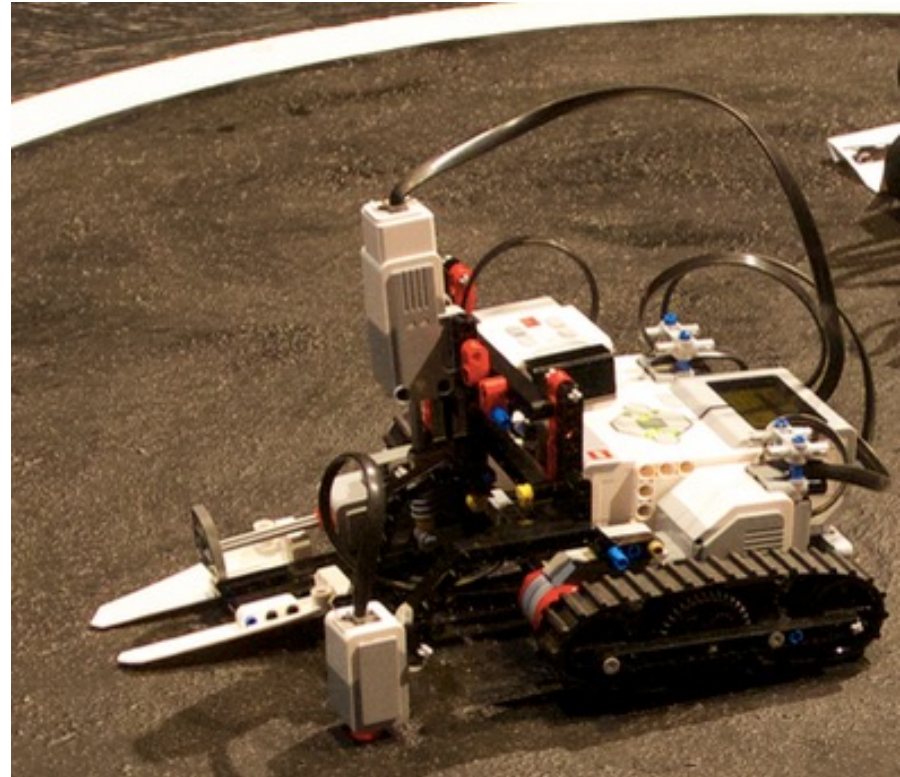
- Build a simple lifter and try

Learning:

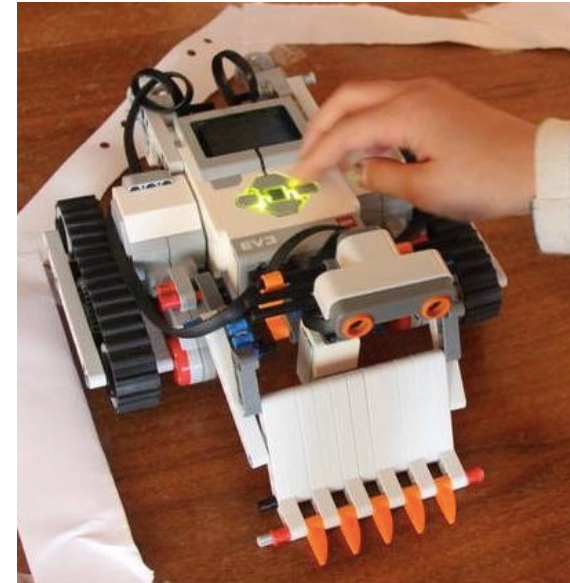
- Works as designed...
- But too weak to lift opponent
- ... so it doesn't help us win!

Options:

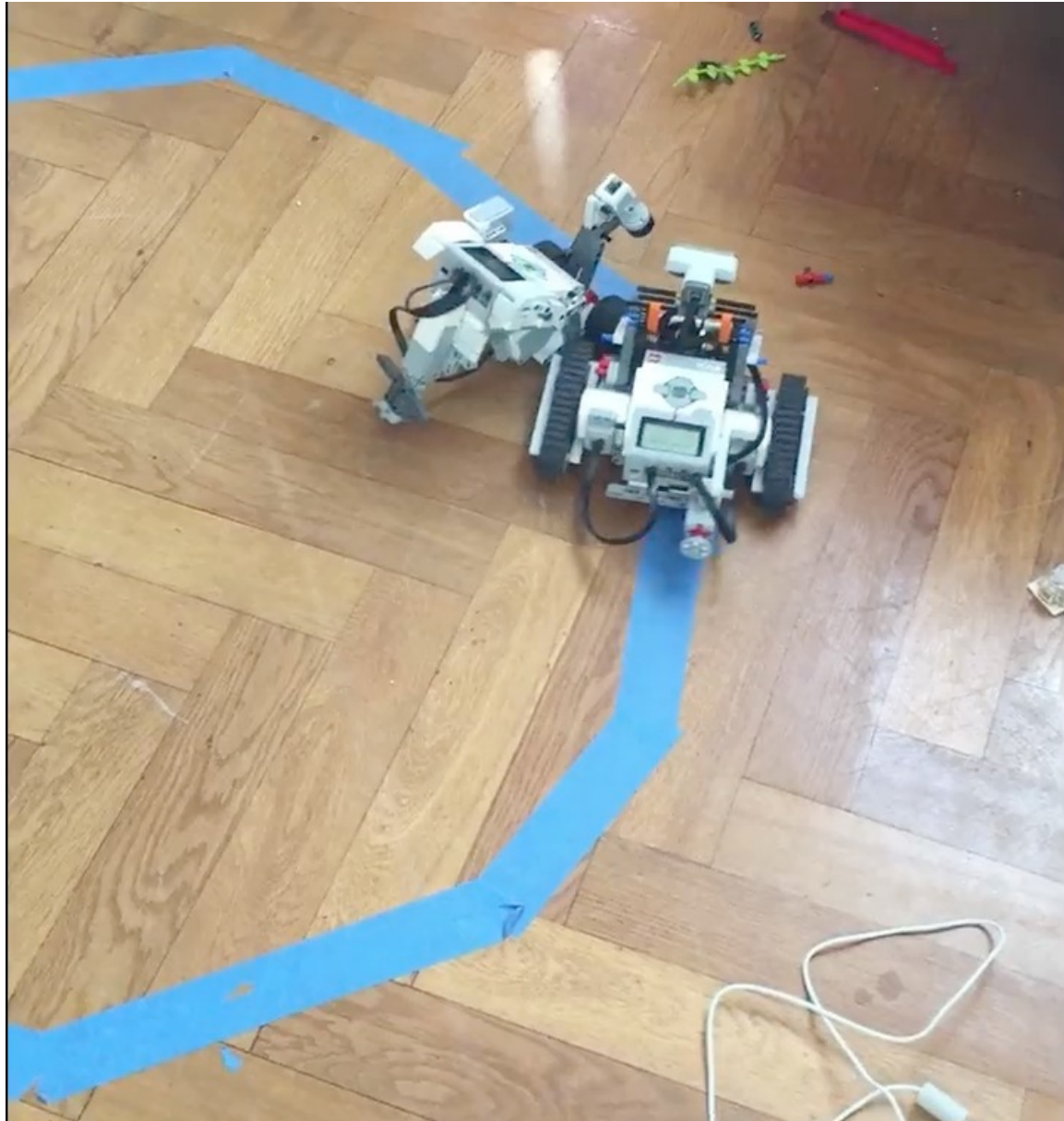
- Keep it cuz it's cool (who needs to win anyway)
- Improve it
- Remove it, try a different approach

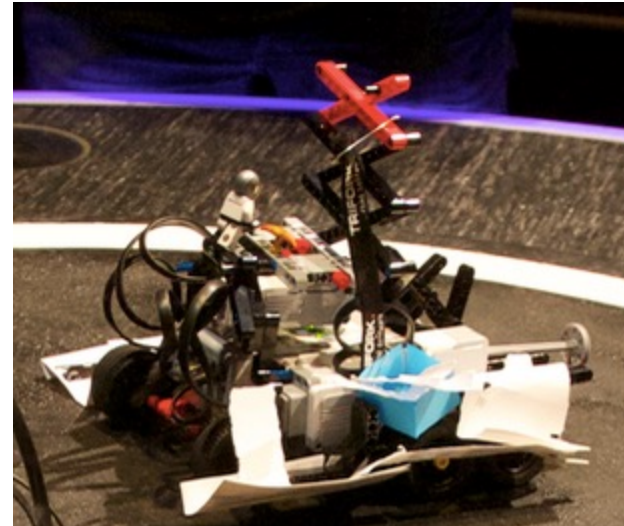
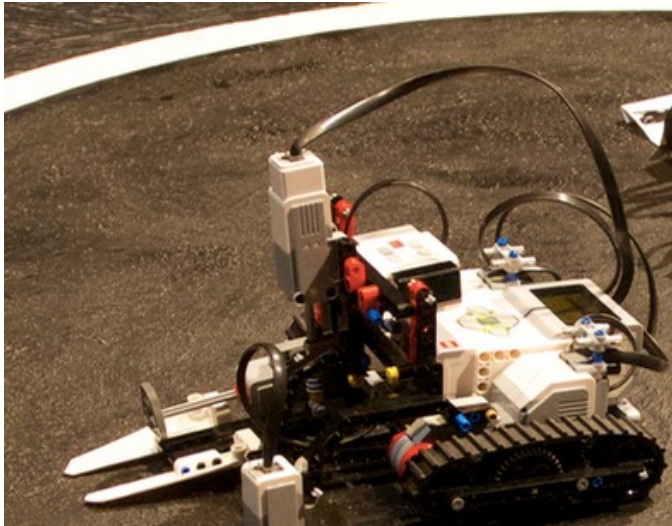


Simpler was better



Field testing =
Success by
100 failures

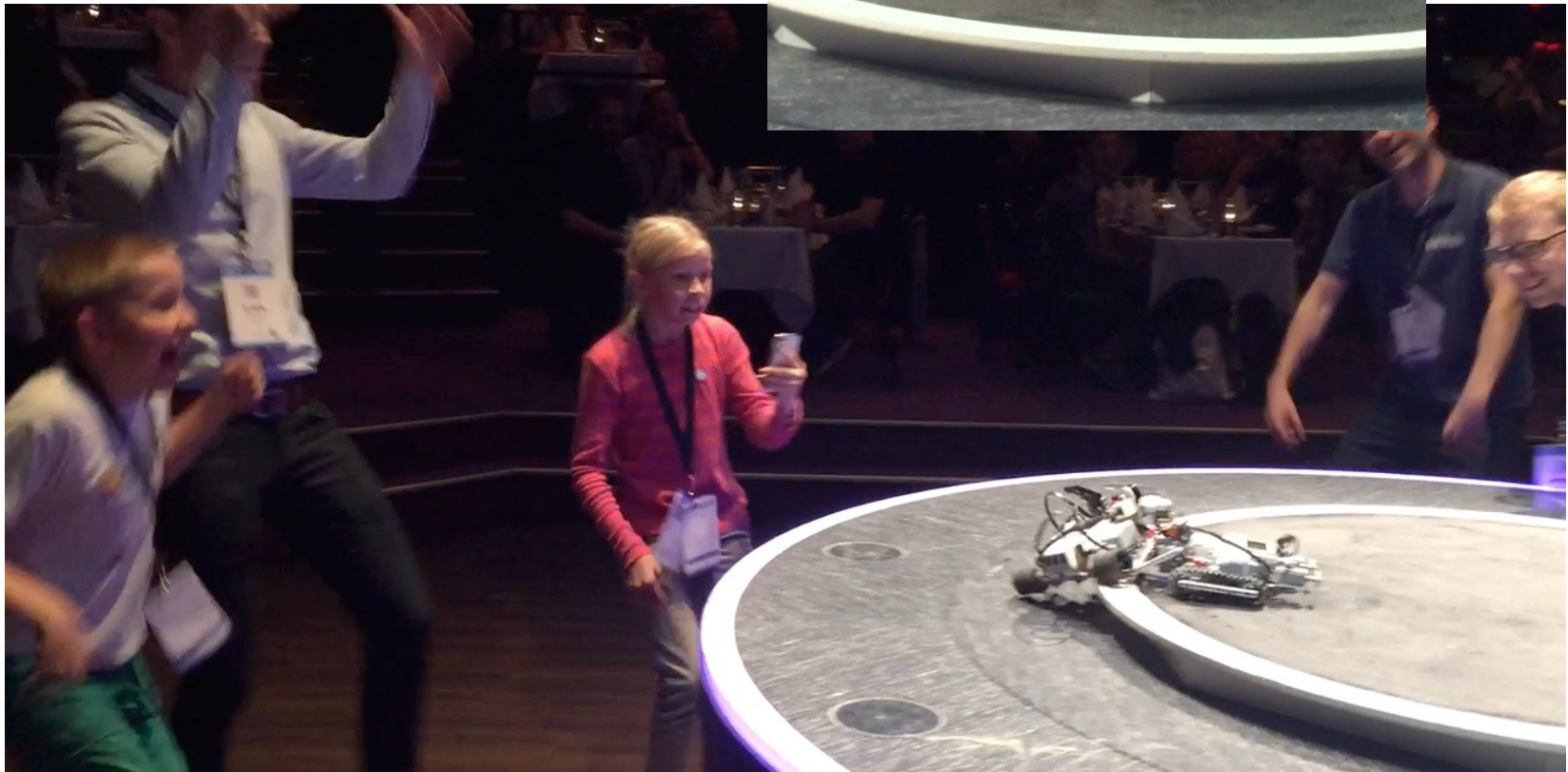
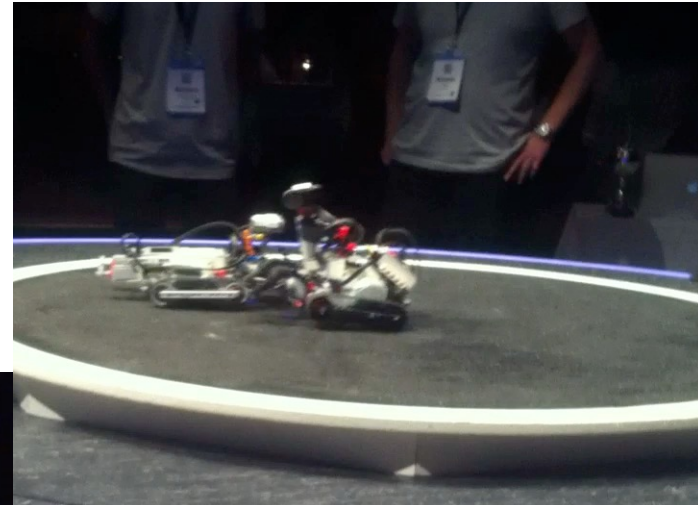




Henrik Kniberg



Henrik Kniberg



Henrik Kniberg



Henrik Kniberg

How could they win?

Building skill? No.

Programming skills? No.

Luck? Partly, but not entirely.

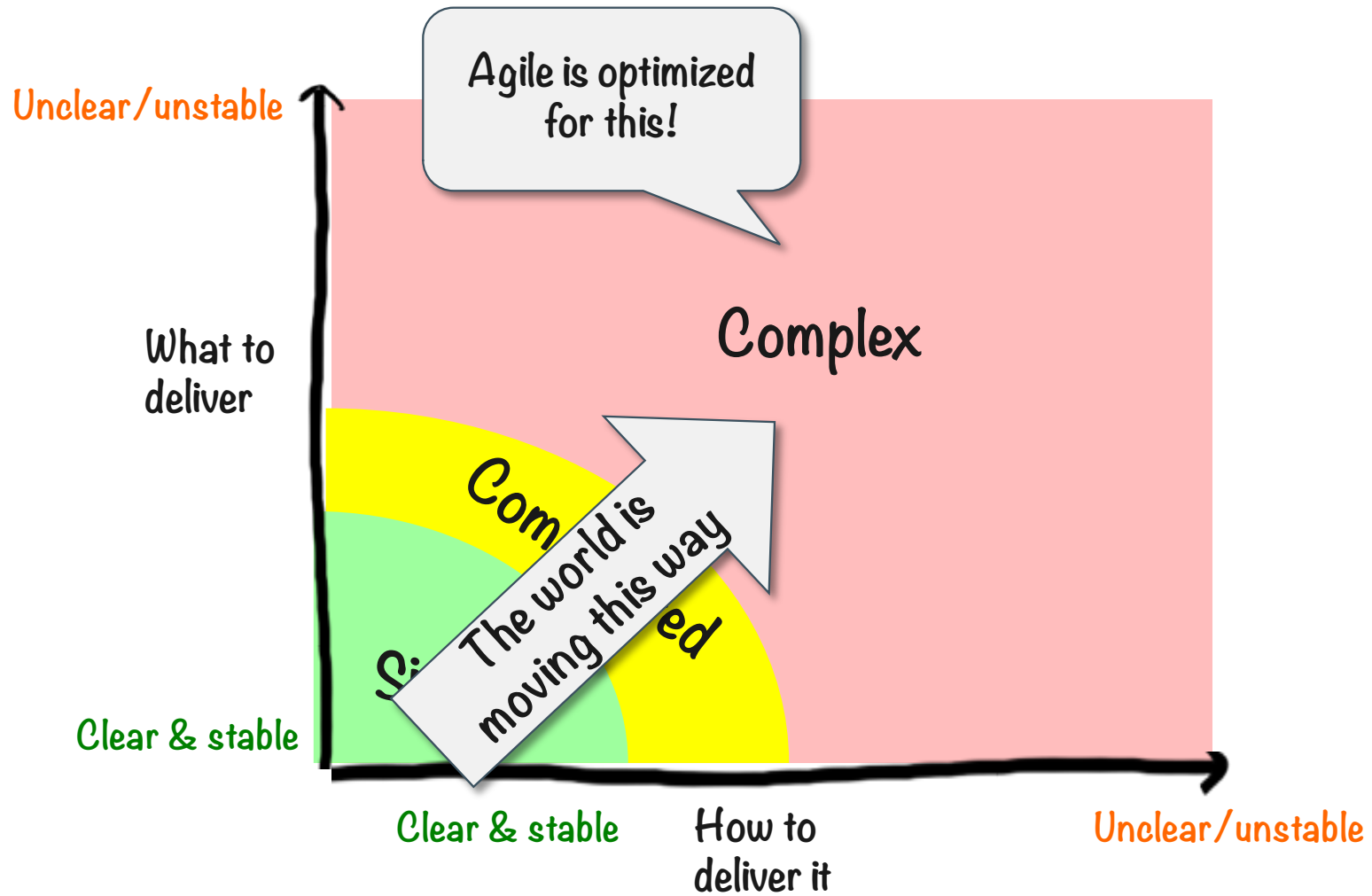
- 1) Clear goal
- 2) Low self-confidence
- 3) Emergent design
- 4) LOTS of field testing!



A photograph of a brown corkboard with a white rectangular sticky note attached to it. The sticky note is slightly tilted and has the word "Wrapup" written on it in a black, casual, handwritten-style font. The corkboard has a natural, textured appearance with small holes and a warm brown color.

Wrapup

Why is agile spreading so fast?



Henrik Kniberg

Credit: this is a mashup of the Stacey matrix + Cynefin framework

Minimize the gap!

Create a culture of curiosity

Who are the REAL users?

Maker



User



What do they really need?

How does our product help improve their lives?

How can we improve?

How do we know if our product works?

**Make the world
a better place!**
An agile approach
might help you with that

Thanks for listening!

Henrik Kniberg
2023-09-20