

Week #4

#1 read/prototyping#

Video 1: Shifting How You Work

How to integrate everything what we have learned in 3 weeks before:

1. We are going to pick a big problem
2. Specify a change you want to see (what we would like to change, while solving that problem and get specific)
3. We are going to identify the collection of scenes 1,2,3 that are really critical for the problem to solve
4. Pick a scene and plan prototype

SMB company with 300 employees and our big goal for this year is a single thing: Let's become more innovative. The first questions would be? What do you mean by being innovative? It's too vague and much of the time if people approach me with **big goals** they are very vague like this:

- I want to put the best product in the world
- I want my company to be more way innovative
- I want to make sure we have the next milestone in the release

Often the goals are good but not specific enough. What exactly does it mean to be innovative?

Specify change you want to see:

- Ship more milestone each year?
- Ship more products?
- The existing product is being used more (customers are excited) ?
- Your organisation is coming up with much more interesting ideas?

Other example:

- 1) Pick a big problem: Let's create a great product
- 2) Specify change you want to see (what is exactly a great product?)
 - It enables to do something that have never been done before?

- Or something that has been done before very comfortable, well designed

It questions like this when you challenge your vague goals and sharp them into more specific ones and helps you to initiate the process

1. Pick a big problem: you want to make your SMB 300 people company more innovative
2. Specify change you want to see: Ship 2 new product this year to the world
3. Identify the scenes that drive changes:
 1. New project selection meeting (selecting the right ideas)
 2. Final pre-launch customer tests (customer tests)
 3. Executive staff meeting (get in front of the exec team and speak about product ideation and delivery)
4. Pick a scene and plan a prototype: Pick the one that happens first in time
 1. You need to get into the front of executive team to speak about the products that will be launched during this year. > Conversational prototyping
 - How to start the process: Find a stakeholder who could be in the meeting, pul him a side and do simple series of conversational prototypes. Where you say: Hey a month from now at the stuff meeting I'm going to be announcing this different directions that we're gonna go and I've love if we could pretend d to be in the meeting together for the next 5 minutes while I give this announcement and right after I do that I want you to think loud and tell me what went through your head while I was communicating this and what your major questions concerns or points of enthusiasm are after that has been said.
 - Iteratively apply prototype and test techniques to the scenes. And you run this prototype ones every 5 minutes you get this feedback and you get a lot of learning from that feedback. You begin to modify it and maybe you deliver it again, 10 minutes later or a you want to get a day between to clean up a lot of pieces. And invite this person or another person equally representative.

Break down your big problems into specific risks/conjectures to test.

Take 1 and 2 scenes and repeat the process for other scenes to reduce risks and observe actuals

Let's do this again for another example

1. Pick big problem: cure treatable diseases worldwide (big mission)
2. Specify change you want to see: (what is the thing that you would like to do right now)?:

Distribute quick/cheap diagnostics

3. Identify the scenes that drive change:

1. We need to be able to come up with inexpensive diagnostics
2. Taking the cheaper diagnostic approach and deploying it on the ground in the villages
3. Organise the capital and get the program underway at least at the pilot scale

Among all these scenes there are many unknowns.

4. Pick a scene and plan a prototype:

1. Create physical prototypes and go to diagnostics for micro-fluetic? How to create a prototype. You are going to iterate on it by shrinking the build, shrinking the test cycle and step by step you can making a tight learning loop.
2. Pulling together the right resources to be able to fund the project. Who could be in the room, doner, investor? How do I create a conversational prototype, where I'm communicating the value of the tools that we are deploying. Setup a little scene, how will be in a room, run the conversation in 5 minutes, go back change and run another conversation for 5 minutes. Might be several times a day!

From here we are going to learn from the scenes. The specific goals leads to the huge goal. The learnings are coming from bottom to top!

Specificity is drives the prototypes process. A simple way to get specific is to ask yourself, when I change this thing is there a specific metrics that is going to move? OR is there a specific observable behaviour that is going to happen. If the answer is no, you can't pick any specific behaviour or metrics. Push just a step more into the specificity where you will have a metric or specific observer behaviour that is critical to be able to fuel the prototyping process!

Video 2: Upgrading the Week

You want to get sketch out your normal work week to get fit your prototyping into the work week. Take the screenshot and color in the basics where you reasoning and conjectures and color this in a grey. Then I want yo to go to find areas where you are building testing or observing the customers directly. **What is percentage of time you are talking about things vs. being building and testing and observing**

On the meeting that are grey, ask yourself what we are actually trying to learn here, what needs to be decided here. What actuals might drive a better decision and what prototype may have us arrive at some interesting actuals.

What you will find from doing this. A number of the problems that you're currently working and struggling with, will get result in much less time. Less meeting, less talks.

I want to change you what is more radical: Put a dedicated time where you want be in front of your customer. Regular weekly time, where your end customer is the part of your end process or your work. Block of time!

We stuck, but our customers will come in 2 days? Why we can't run bunch of things in front of them? Done conversation ended.

Adding 2 hours speaking with the customer, removes 15 hours of the meetings. We agreed on these 3 things, and these are the 3 things that we disagree. And instead of debating, they will go into the Wednesday test.

Video 3: Atoms vs Neurons

Inside changes are very important (how you work right now, how you think right now). In order to go and work differently in the future. You gonna need to think a **bit differently how to do this work.**

Most time when we want to do a change in life we are doing it neuron vs. neuron battle. I want to challenge you to transform that into atoms vs. neurons battle.

What does it looks like: Let's say you are a smoker, you want to quit smoking. Even when you don't like the smell you go out into the balcony. There is new you, new set of neuron that have different set of behaviours and there is old you with the neurons that want to have old behaviour. If you let it be neuron vs. neuron - old vs. new it's gonna require lot of will power. If you have the will power, you put and push a heavy couch in front of the balcony door. Now the next time you want to go to smoke a cigarette on the balcony there is this couch and that's a atom in fron of the balcony.

The atoms are not getting to be tired, they are just sitting there!

If you want to have systematic change happen. What are some of

atoms that I can change which are going to impress upon the neurons/thoughts of people

One set of neurones that we can start to initiate change. I put a board right in the middle of the room, where the team can see. Where everyone walks and see it. On the way from the elevator to the office area. You put on the board, the number of key learning that you have last week. Key learning are that things what you have learned by observing actuals that are now been incorporated into how you are doing business or the next experiment you are doing. What you do in the staff meeting every week you ask people: What were the actuals that you got last week, what are the key learning, how we are going to change our business that we do next week. As you go around the room in the staff meeting. And write on the board! At the end of the week you go and put some tick marks on the key learnings.

These are some atoms that people walk by and see everyday and maybe the number is zero or below the rate per week that you want to have as key learnings, than instead of seeing the board like usual. **It's just a big red square.** If there is a red square out there, the rest of the team will actually know that you and the rest of the management team, is going to challenging the team to get actuals to get key learnings. This is how the organisation can drive behavioural change.

Another set of atoms that you might change. How people see it. Something like that can encourage interaction and communication of the groups that haven't been doing so before. And you can model it into your learning loop. In your learning loop what are the set of people that need to be communicating often and working well in order to build, what set of people to test well, what sort of the people that needs to make the set of decision. Cluster the people into groups to make the loops much more faster. Change the workspace!!!

The idea of reflexing and dereflexing. The mind really does primarily these two things. You either reflexing this behaviour (you do it over, over and over, so each time you do it, it becomes less effort, more reflex, you see this if someone practicing a piano piece or practicing a tennis swing, or practicing a speech, each time it's becoming more and more reflex) and dereflexing the activity of the brain where you are already in a habit and you want being stop being unconscious (unbewusst) about that habit. So instead of unconsciously smoking wherever you stressed or instead automatically throwing out your conjectures. You might say hey I don't want to be a reflex anymore, I want to dereflex, I want to make it so that I'm more conscious that is happening, I want to make it that is not automatic!!!!

If you want to be systematic in order to change your business or your life. Take out a piece of paper and gonna write two columns: things to reflex and things to dereflex. And begin listing observable behaviour in your organisation that you want to do more of and observable behaviour in your organisation that you would like to do less of. And sometimes in the clarity of writing down you will get a lot of big wins. But if you cannot get a big wins by writing it down just from the clarity.

- Then you are asking yourself: How might I change the atoms in order to reflex or dereflex what I'm doing.

He was too often using his phone a little bit unconscious. So what he did he put some atoms in a way. He created a cover of wood, so he need to flip it over before he can access his phone



So he made it when the cover is open. It tells him to be here now. So he has this constant atom base reminder that he should be here now.



And the last thing that he did. He switched off that his phone didn't unlock with his finger. So I couldn't just unlock it unconsciously. And he made his pin 6 digits long so even that takes longer.

What he found from the process that changing the atoms, kinda putting them in a way it has dereflexed him of the number of behaviours. This is a must to learn new behaviours! Sometimes it feels a little bit weird, people are getting annoyed, but if it will help you to do things better and faster.

And recognise the moments of annoyance is not the whole system is breaking down it's just the natural sort of friction that you gonna get moving from an old set of habits that have been reflexed and to dereflexing them and new set of habits and taking them you not being that practised into making more into habit or reflex inside your organisation.

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If people say something. I don't know what to do here. Usability wise it's confusing? You need to ask these people about the why, why these things happened to them.

If prototype is not working people fill kind of reenergised. Or the prototype has worked people fill energetic. Whether worked or not, what was the exact specifics what worked and why did it work? And what haven't worked and why didn't it?

Ask 5 whys to find the reason why something has worked or hasn't worked. The reason

why we are going into he why it's kinda a north start, how we are going to engage with our customer.

We have more and more computers in the world. And everyone wants to be data-driven. But one danger that comes can be where if you try to set measurement parameters on a thing that you have never tried a lot of times you will end up measuring either not the right thing or the incomplete set of things. Trying to get optimise the incomplete set of variables it's impossible to actually succeed!

People do 100% optimisation on 25% of the variables, because they are just thinking about the problem. But one they actually go into to doing something, they discover the remaining variables and even if they do not do 100% optimization on 50% of variables, it's still better than 100% optimisation on 25% of variables.

You need to discover all the variables you can optimise. And you can't discover it without doing!

Specificity is the friend of innovation and attachment is the enemy of innovation

In practise there is no final prototype. Even if something ends up being incredibly successful. Something like facebook is it the first type that got to the 1 billion users. When they went from zero to eventually a billion to people, it wasn't like they were done with learning stuff. Prototype and implementation of a thing. Is not a start of a race and end of a race, but rather kind a next milestone that something is basically infinite. The reason is as long as there are more ways to learn than it's not the final. It's final when you feel the organisation has prioritised that it's good enough that they are not going to put more energy on that, but not because there is nothing to discover. **Each milestones is open up a further frontier!**

Specificity is a friend of innovation. Imagine you walk into the room and say who likes an ice cream? And everyone says yeah ice cream. If you keep a that way you got a respond. But what if I start to ask something specific: Who likes an ice cream that has wine in it, and people that don't drink they will stop yelling. And next who likes an ice cream that doesn't have any sugar in it. And some of the folks will think that's strange wine and no sugar, and some of the people will cheer. And now who likes an ice cream all of them above and has vodka in it. And no one raising the hand! If you keep it big everybody will say yeah. If you specify you will get the right answers.

Another example: A software company says: Who wants a software that makes you save more time? And everybody is like yeahhh. But what if the software requires you to go login with your privacy data to be able to add your data into database. And some people will like well there is a privacy issue, but still some other people will yeahh if it saves me a bunch of time. But fewer people are raising their hand. What if on top of all that it sends you a notification 30 times a day. Well that could save me some time, but other people say I have other things to do, so they will stop saying yeah. So you get further and further. When you keep things vague everyone will say sounds great. If you keep things vague, nothing can be proved or disproved. When you get things to get really specific you will get the real answer. Each new layer of specificity gives you more clear feedback: what people want or not want and why they don't use something.....

Toms call his course Prototype Thinking because its way more than just rapid prototyping.

20 hours is not particularly rapid. He is saying that 3d printers are not rapid.

People are confused between the tools and the approach and philosophy, more than it's any specific tool.

First Friday: When the whole company is prototyping. Like an event (atoms = big signs in front of the elevator).

Pick a habit that is become so automatic to you that you truly don't give any thought at all. And specifically a habit that holds you back from thinking differently. And then you go and introduce some atoms that change your behavioral. He has mentioned an example that he was sitting with executives, but it made no sense to him. He went to sit with the folks that he interacts more often. So when he was sitting he was always part of the group.

If you are the boss and you can just change the system how people work. If you are not a boss, pick 2-3 evangelists who want to start working faster and better. When that's get done then other people will come and ask. So you start to explain we have changed a little bit how we work. This is how we work. Then you will get the next set of people and more and more Little by little you become the party and everyone wants to join the party.

(Snowball mental model)

Lot of stuff that comes from top down is a conjectures. Than sit down and think about what is the cheapest experiment to get more actuals.

