

# Week #2

#1 read/prototyping#

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Video 1: Introduction

The heart of prototype thinking is the prototyping themselves

3 Approaches to prototyping

How to get testing!

Basic principles of prototyping. Prototyping is about achieving 2 things

Prototyping aims:

1. Max learning per min effort
2. Make it real enough to feel (make the situation real enough to feel)

Prototype is not = interview or customer survey

Prototype is direct experience that you can observe actuals from. "Real enough to feel" allows you to observe and reason with actuals

3 different approaches to prototyping (that entrepreneurs and leaders need at their work day to day)

- Software/Interactive: to test and de-risk digital experiences
- Conversational: to test key meetings, negotiations, & investor interactions
- Physical: to test interactions with the physical or natural world (typically involves the building of physical object, either in order to see how customer interactive with something physically or to learn that something works well in the physical world)

Video 2: Software / Interactive Prototyping

Digital experiences are 2 dimensional experiences, tap, click or swipe. In the process the screen changes and we get more information. It is the sequence of 2 dimension events. Now you test it by simulation this 2 dimensional experience with other 2 dimensional

experiences by simulating interacting with paper.

Prototyping Tip: Use fast tools **before** slow tools

Now he's showing how to create paper prototypes. He wants to simulate the sequence of 2 dimensional experience



He cuts off in order to make exactly the size of the screen



Your objections: Hey paper doesn't look well, it doesn't represent my brand very well. This type of prototype helps you a lot, because people know that is the very early form, so they want criticise is this button the right color or I don't like the style of this. They keep their feedback a far more of the level is this concept that I understand or resonate with that all. At the early days of development that's the main thing you want to understand. You don't want to be 3 month in building the software that people don't understand the basic concept. In the paper prototype there is lot of value at starting of this level of rawness.

Paper: The purpose is to sort out understandability and usability

Use Case (Storymaker app):

The app is for people to share their stories, like interviewing their parents and grandparents to collect family stories.

Screen 1: Login / Register

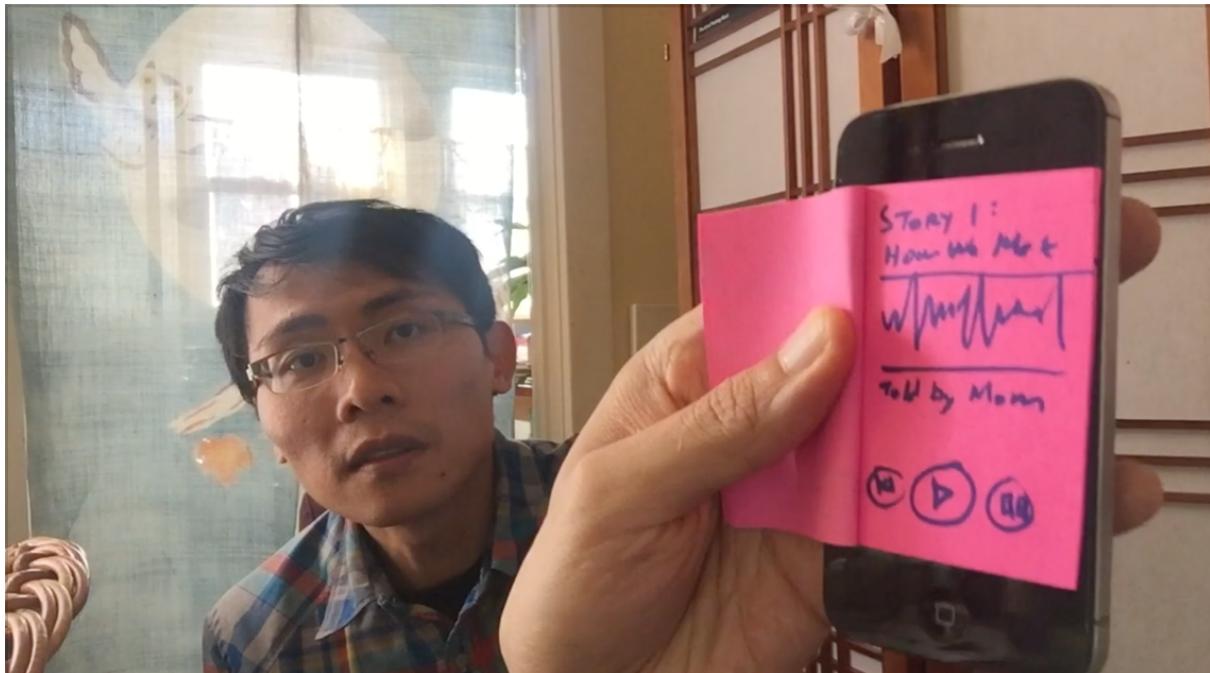


Screen 2: Story Listing and Playback (with button record new story)



Important: there are two different action, play back the story or record a new story. He's now is going to make the new screen for playback the story

### Screen 3: Playback



Another thing you can do is to record a new story, therefore he's going to make a different screen to be able to show what happens if you want to record a new story

#### Screen 4: Record New Story

Now he has created a 4 screen flow to show the user experience of the app. It took him couple of minutes and with this he can go to his family and say. Hey I want to have your feedback on this new idea I'm working on. Just think out loud while you are using it. I don't want to tell you too much about what to expect. But imagine this was an app on your phone.

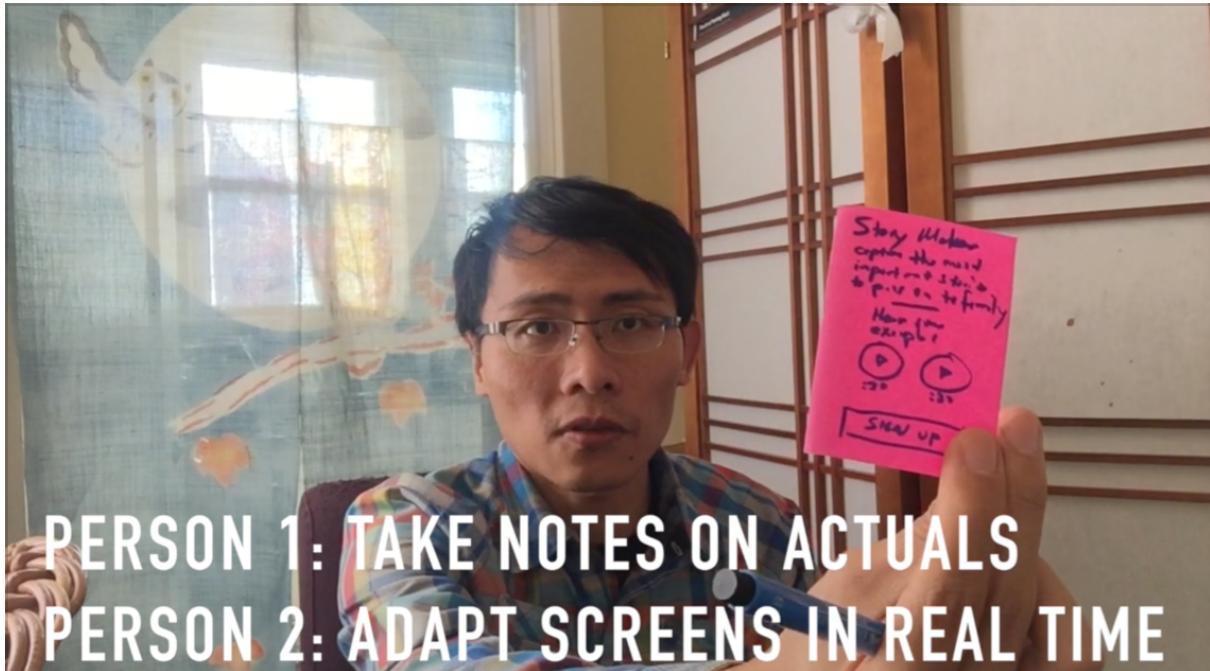
You handle them thing and hear what they are telling you.

Your best learning will come from when things "don't" go as expected

An actual that I'm seeing that people don't get it why they have to log in or to register. The first screen experience that they already don't understand. The learning is that people don't see the value on the first screen. During the test I'm hearing the feedback and drawing a different home screen. While they have the difficulty with the home screen. You create an alternative home screen while you're hearing the feedback.

You see to create a new home screen didn't take too long either, especially when you are testing you have 2 people. Person 1: take notes on actuals and Person 2: adapt screen in real time

An alternative 1 screen that gives them a different experience with the thing that they are confused with



## PERSON 1: TAKE NOTES ON ACTUALS PERSON 2: ADAPT SCREENS IN REAL TIME

Since you asked me to act naturally, since I don't anything about this other that record your videos of your family's history. I really probably wouldn't sign up. And they actually don't even get to these other screens

DON'T FORCE THEM TO GET TO THE OTHER SCREENS IF IN ACTUALITY THEY WOULD STOP RIGHT HERE



## ALLOW THE CUSTOMER TO GO (OR NOT GO) WHERE THEY ACTUALLY WOULD

Instead you can say. Cut, roll it back and put this new screen that you have created in real

time after hearing the customer feedback on screen.



And you say to the customer. Imagine what you just did didn't happen, we are rolling it back to the beginning, we are running the whole scene again. You sit down and this is the first thing that you see (see picture above). The person is gonna walk through and have a different experience

Using that approach like this, you will filter a lot of concepts that are total duds or just not understandable to people at all. Or just have zero resonance to people. You will filter out a lot of important usability and flow issues that could kill a thing that you have put months into. You can go through every variation typically every 10 to 15 minutes.

Time Saving Tip: Don't redraw/rebuild to make a small adjustment. He is cutting the go button from the postit and glue it to the original screen that confuses the user. These sorts of iteration can go really fast, you can change a little part of it. Very quickly you can build a way of making an interactive flow that is understandable to people.



### Video 3: Conversational Prototyping

#### Conversational Prototypes

Useful in business is not everything is going to be a bunch of interactive screens.

Sometimes you will have negotiations, business conversation, executive recruiting conversation, securing critical strategic partnerships.

#### CONVERSATIONAL PROTOTYPING ROCKS WHEN A SPECIFIC CONVERSATION DRIVES IMPORTANT BUSINESS RESULTS

The prototype thinking is good for anything that has significant risk, anything that is unknown

PROTOTYPE THINKING IS A DISCIPLINED APPROACH TO CREATING IN THE FACE OF UNKNOWNS. A lot of business conversation meet this criteria. What you want to do is to go and create a scene around that conversation. Just like you have created a tiny scene with the customer and their phone or it could be customer with the laptop (instead of notes you use larger paper sheets that you go and put over your laptop). You create a little scene between the person and the machine, you create a relationship.

Instead with creating a scene with the machine. We create a scene where 3 to 5 people

involved into the conversation.

## IMPROVING THE CONVERSATION IS THE FOCUS OF THE PROTOTYPE SCENE

Building the scene:

1. Where (physically) does it happen?

- a) walking down the street
- b) he comes to your office
- c) you gonna fly to their office

Because it changes a lot depended on the place and the situation

Let's say it takes place in chicago and put the sticker on the wall with Chicago

2. How are people & space arranged?

- a) create a scene by putting the chair and table as it can be

What you want to do, you don't want to think about this process abstractly. For prototype like this grab the second person and start prototyping.\_

3) Who are the characters?

Keep the setup short (< 15 sec) and have it be about them, not you.

ONE THE 3 ELEMENTS ARE ESTABLISHED RUN THE CONVERSATION IN THE SCENE!!!

Classic business owner starts by pitching their product

Now he's simulating the scene

It needs to be a real role, the co-worker or the second person needs to be in the role of the opposite.\_

If you don't live into a conversation, it's easy to fixate on „yourself“

A good rule of thumb about a conversation is that a conversation is about the person you are talking to. It's not about you and your product, your pitch deck or how do you look like. What matters in their world (of customers) does it fit into their world or not.\_

CONVERSATIONAL PROTOTYPES REVEAL WHAT MATTERS TO THE OTHER PERSON

Try to simulate all types of conversations, if it's in the chicago office, create a scene around it, if it's during a lunch with an investor, go and try to do it while you are eating. Live into the environment, have a friend or co-worked playing the role of the opposite investor, partner, customer

If the conversation happening via digital channel prototype it like that. If it is email write an email, send it to your peer, let it read it and respond to it. After they lived through the naturalistic experience communicating that way than go back and talk to them and ask what is going through your head?

### **LIVE THE PROTOTYPE FIRST AND ASK ABOUT IT AFTERWARDS**

Conversational prototype will involve at least 2 people, and setting up the channel like face to face or Skype or via email and is going to involve the person that's being communicated with for you to know the role well enough to lie enough the role (those incentives and the purpose of the business)

Video 4: Physical Prototyping

Physical prototyping

If you poor the water, now the poor is just as usual as it is. But let's say we want to make a better poor. Where the stream comes beautifully, it's static, it's sounds good etc.

The output is not a communication. The output instead has to do with the physical world itself, the molecules from the water. There is a human element to it looks or sound great.

In a physical prototype, the physical world is one of your customers.

WHEN PROTOTYPING, IT REALLY HELPF TO LOVE **NOT KNOWING** WHAT WILL HAPPEN

IN SCIENCE & BUSINESS, YOU WILL LEARN THE MOST FROM THE UNEXPECTED RESULT.

PHYSICAL SOLUTIONS CAN BE SPARKED BY BUILT & NATURAL FORMS AROUND YOU.  
He's now telling the example that he saw in the restaurant one a shape like semicircle and

he remembers it made an incredible poor.

He has built an prototype that was not working. It shows that this process shows how quickly updates can be driven by actuals...

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## Call Week 2

- They created a prototype for the slogan. So you can even do prototypes to create slogans, or value proposition etc. Particularly everywhere you can use prototyping. They had a group and created the prototype for slogan. But he says that you need actuals, you need to go out and test the slogan!
- Everything that actually happens is an actual, if you need to talk to people and they challenge you hey I'm not really sure to reach out to this person and show him a concept that you are working on. That's a thing that is actually happening and the specificity out of that than can lead you to the next things. Most of the people would say oh my god that's a challenge, my concept is not supposed to work as it should be. And if you look at the concept of the actuals, what is telling you here is what needs to happen to work this concept. What I need to do that people are willing to test the prototype. The challenges that you are getting to your high level concept, especially by proving more specific details, every specificity moves you forward. Even if it pushes back the way you thought you the high-level concept would be. A setback is actually every step forward! The more specific and more based on the actuals the more it's coming to realisation.
- If your concept is a big concept, the specificity is low there, it's too many things, it's hard to imagine the one thing you can start prototyping. The thing about prototyping or building anything, you need to start somewhere, it needs to be meaningful so somebody, before it's end up be meaningful to everybody. When you are in that type of situation. I encourage you to pick here is one real use case, that I think is a great example of the sort of thing than start breaking it down by who will be a part of it and what's time sequence. What is the first thing that would happen and what would be the second thing that would happen, and what is the third thing that would happen. We often think about systems and start to put everything in it. But whenever a new thing is introduced, people are always experienced it, I haven't heard of this system and than a 1 day a flood happened and I got an email. There is always the first thing you have every heard about it, than what the next thing that happened?

- Break it down to some specific: first step, second step, third steps. If you do that it becomes very easy what to prototype. If the first exposure is through email that gets send to a facility or a group, then write and draft that email as your prototype and then find that person, you will like would be a customer of a system like this. And then send this email and ask him to go through the prototype email to test before you're going to send it out. Think specific, it helps you to start in a fast and concrete way!
- Teams that are working in different timezones? She is working in US and they have a Hong Kong office. There is big gap and all that stuff that they learn in the US office and Hong Kong office. Team that is in touch with the customer is in US and the team that develops a product is in Hong Kong. There are situations where the learning loop is not the loop: in one place the team is interacting with the customer, in the other place the team is building the product, and at the third place the executive team is making decisions not on the facts what the customer are saying. In that particular company the learning loop doesn't close and that's totally fine. And that's the result of the documented the loop. You can try to close the loop by reaching out to the persons that have the actuals e.g. I'm in Hong Kong office and building stuff, so who is the person in US to whom I can reach out to get the feedback to try to close the learning loop. The loop is a higher level organization construct, it doesn't matter where you are, the construct is still coherent in that place. Even the fact that you are in different places and timezones, it will be a problem to have a learning loop shorter than a day. International offices have the learning loop as long as a day. Tom had the experience as an exec: there are offices where in Europe and in Asia. When they build something in US, it was tested in Europe and integrated in the next office 8 hours later. That's an example of the learning loop even if you are in different time zones.
- Even if you are 1 person and haven't launched a product, it's possible to have a learning loop on anything.
- When Tom was making Google Glass or self-driving cars, they mostly used inexpensive teams. They bought some 30\$ webcam, attached it to the notebook that was recording. To build a prototype just use some inexpensive wearables to create a prototype like for heart rate, heart rate variability. Use your prototype in a simulation environment (training field). During the simulation just measure everything and see and to get data from the simulating the response. Use something cheap to build the prototype and use it in a simulation environment (Frankenstein-Product)
- He recommends even if the company does not have a budget to buy stuff to build a

prototype, just go and buy it from your money. Often you will feel yourself better, because you will do something meaningful. And work is part of your life. Often there folks are going to be promoted, because he's taking the responsibility. If you can't get the approval, just skip the approval.

- He was prototyping the GitHub for emergency officers. Type platform where they can share and put those plans from the GitHub and use it for their daily work. He prototyped the platform in google slides. You can use GitHub for iterations of documents. You can start using free public tools to build a Frankenstein product. Like angejlist has started with an email. You can use wikipedia, because it has open source version code. Tom doesn't recommend to use more advanced version of prototypes (go and code something), he's proposing to stay with the free stuff to learn the specifics to learn about what it's needs to be created. You can just come back to the coder later and show the last version of the prototype what to build. The general rule to take away for lot of folks: there are a lot of things that are free or inexpensive. Whenever you are looking at something that you need to go build and spend a lot of money, that's where you need to be nimble and creative and you should brainstorm: what's the thing is free or doesn't cost a lot of stuff.
- Often people ask Tom how I'm gonna prototype a mobile application. Go and install a message app that is not so popular, let's say Viber. Even you haven't heard about that, even less popular chat application literally do everything. You can send photos, videos, audio, location etc. Any mobile app can get prototype through a Viber chat channel. Since people don't know Viber, they will say you already build this thing. You say yap, yap sure and you just get prototype than!
- Philadelphia: They have team kickoff for prototyping, so they did prototypes in the team. They are trying to build customer development process and build in prototyping time. To push people making and not just listening. The right time to prototype something, when you find yourself making decision from conjectures or as you said just sitting around and talking about that thing. If you have been talking about something a week, and nothing has happened and that's a great occasion to make a prototype. When you making decisions and you are stuck, just go and prototype it.

If you lost yourself in the conjectures, Tom is advising just think cheaper and smaller. Not because the cheaper and smaller thing is going to be ultimately what you ship, it will give you better materials what you think of. Let's say you want to make your own platform. Break down the big thing into smaller/cheaper parts and start prototyping to see some actuals. Specificity is innovation. The guy in the call have to broad ideas, very hard to prototype. So Tom advises him to become more specific! Think smaller, cheaper and

immediate. The more you think bigger and abstract and far away the more you gonna be paralysed. The more you think cheaper, smaller and immediate. The more you gonna be empowered! Love the uncertainty, you don't know what will happen. What happens in your head different from actually happens.