

Needfinding

Mixed Reality Studio

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Problem Domain

- Education
- Learning on your own
- Where can AR/VR assist in both teaching and self-education?



Methodology

- Goal: Interview interesting, experienced people from different backgrounds
- Find interviewees through work/school connections
- Try to discover interviewees' experiences with learning new knowledge on their own (likes, dislikes)

Questions we Asked

- “What are you passionate about?”
- “What is the hardest thing you’ve ever learned?”
- (Follow Up) What specifically made it hard
- What is your ideal method to grasp a tough concept?
- “What would surprise me about how you study?”
- “Do you prefer to learn in classroom, or on your own?”

Michael Dworsky (Stanford)

- CTO of Atlas (startup), and former Facebook intern
- Extreme User, constantly learning on his own



“Could you talk about the difference between learning to code in school, vs. at a large company, vs. for your own app?”

Michael - Learning to Code

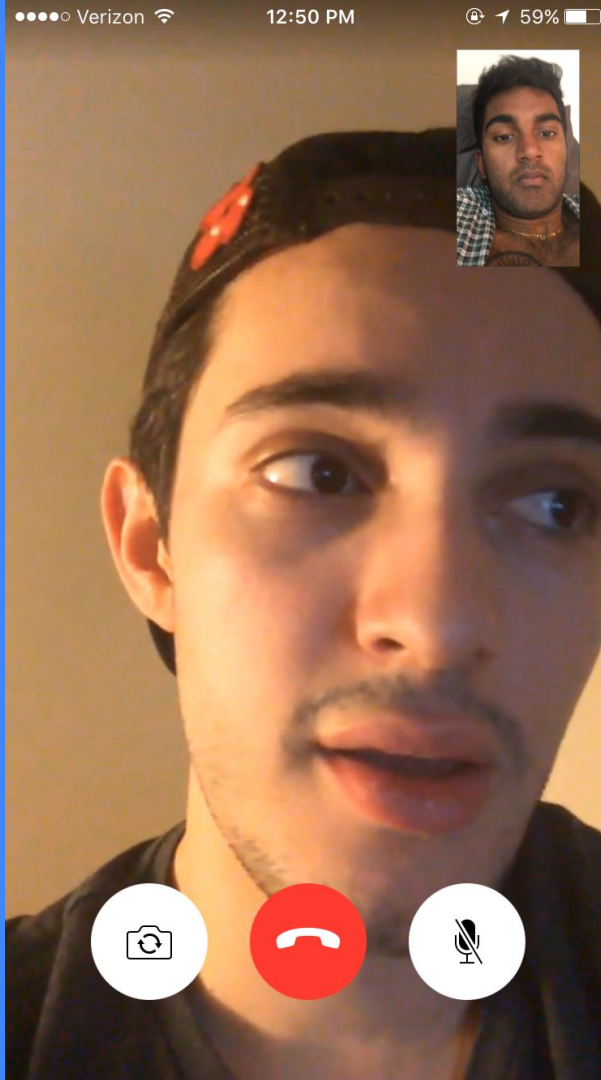


Michael - “It’s great to have someone there”

- Taught himself Swift and how to use Xcode
- “What would surprise me about how you acquire a new concept?”
- “What is your ideal method for acquiring a new concept?”
- ***“Having someone there to correct your mistakes and answer any questions is a big deal and helps you learn much faster”***

Alex Obadia (London)

- Remote call due to location
- Senior at Warick University
- Worked on gaming project in AR
- Active trader of cryptocurrencies



“Why do you think better education is needed in the crypto field?”



Alex - Learning crypto

Need better visualization to help learn abstract concepts



C	D	E	F
Location	Price Bought	Price Current	Profit
Parity	Sold GNO + Kyber	\$290.79	NA
Parity	\$299.88	\$290.79	-3.03%
Parity	\$2.08	\$1.65	-20.67%
Parity	0.00700999 ETH		
Parity	\$8.54	\$8.48	-0.70%
Parity	0.0288 ETH		
Parity	0.03065	0.027176	-11.33%
Parity	0.00010333 ETH		
Parity	0.2186552	0.184523	-15.61%
Parity	0.00074 ETH		
Parity	2.4	1.69	-29.58%

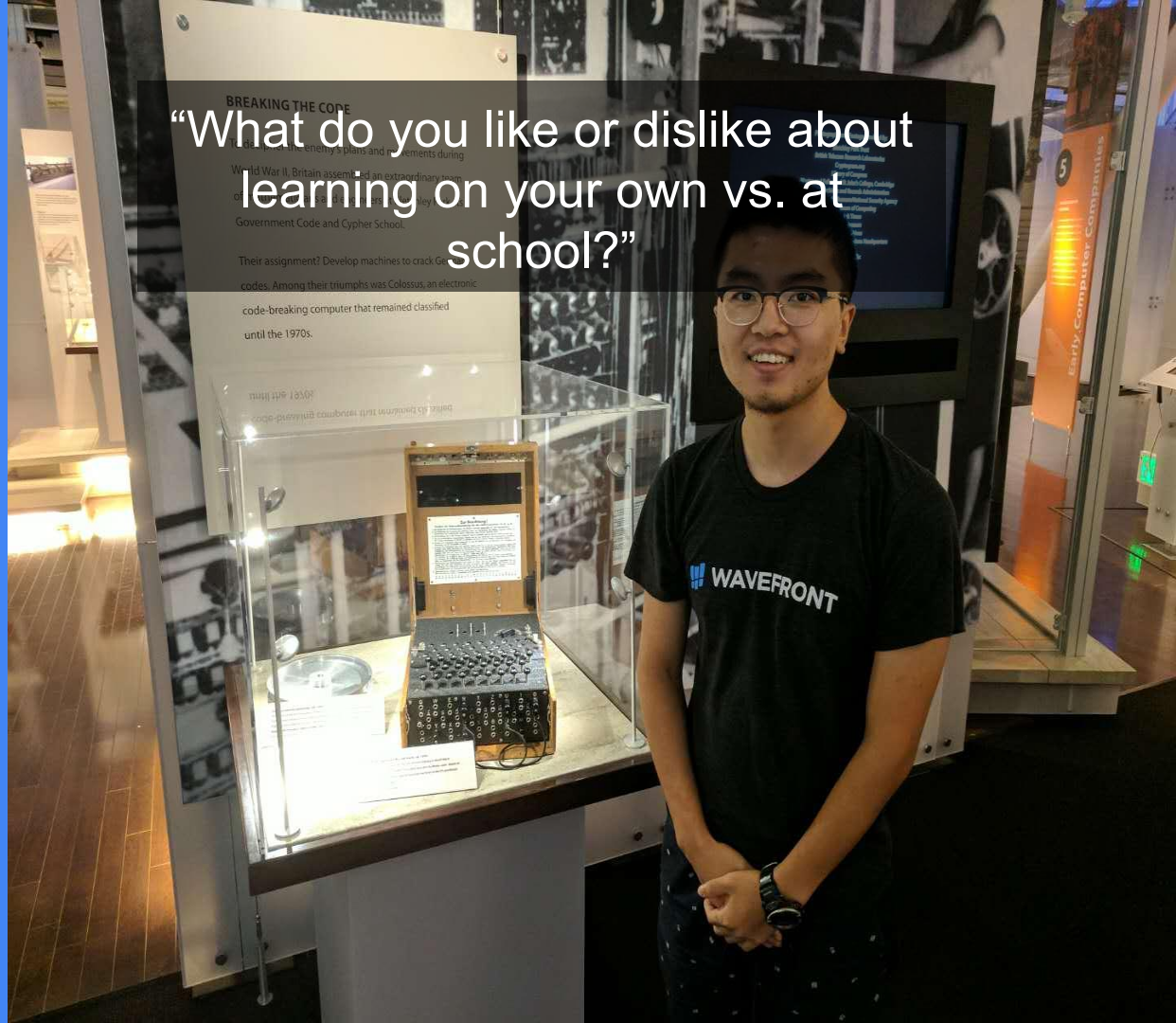
I want to explore how mobile, AR, crypto all fit together and can be used together

Alex - “Visualization will help me teach & learn”

- “I want to be able to visualize the data I have better.”
- “One of AR’s biggest uses is the education and growth of others.”
- “The intersection of disciplines fascinates me. There’s a company that has VR on the blockchain called Decentraland which I find to be very interesting.”

Sunny Yu (Mountain View)

- Full-stack engineer at Wealthfront
- Recently moved to California
- New graduate from Canada



“What do you like or dislike about learning on your own vs. at school?”

Sunny - Learn to keep up with the industry



A lot of things learned at school is probably already out of date, I have to keep up, so I can stay competitive.

Sunny - “I want to learn what I like, but!”

“I don’t like being forced to learn things I am not interested in, but that’s inevitable when you are at school. Curriculums can be, I guess, rigid.”

I see, so how do you feel about taking the courses you like online?

“I know that I have more freedom that way, but there is something irreplaceable about learning in classroom. The teachers responds fast, you can easily find them. Oh, and I get distracted too easily taking online courses, and I might give up easily.”

Sunny mentioned that he often learns things that his friends also learns...and the conversation surprisingly took a turn.

How do you usually make friends?



Through events and activities, also by introduction of mutual friends



What kind of difficulties have you run into while making friends?



The difficulty isn't really with making friends, it's with staying in touch. I guess I call, about 5 people, a year.

Results

- Self-education is error prone due to minimal guidance on which resources to use
- Michael: Learning on your own is the hardest way to learn
- Sunny: Freedom to learn on your own is important, as those topics you learn on your own are usually what you are most passionate about, but it's good to have structure and support too.
- Alex: In the specific realm of cryptocurrency, there is a need for an intuitive, more visual, system of learning

Analysis (an example with Michael)

It's telling that Michael

Believes that human component in learning is very important and helpful

One thing that seems to be important to him is

Not making avoidable mistakes by going in the wrong direction

I wonder if this means

He needs guidance in his learning to avoid wasting time aimlessly exploring and trying

Say:

1. I prefer having a pro guide me while learning.
2. I love learning on my own terms, rather than within a rigid curriculum.
3. It feels great when my questions got answered
4. A human is better in the sense that he can rephrase things when you don't get it
5. You only find fragments of knowledge online, they can't connect well.

Do:

1. Laughing when talking about receiving help from a Facebook boss
2. Sigh and shake his head when talking about “went in the wrong direction aimlessly and wasted a month of time”
3. Stressing need for platform in his field of work.
4. Frowning when speaking about keeping in touch with old friends.

Think:

1. Thinks that human-presences are irreplaceable in learning
2. Believes that effective learning needs a good structure.
3. Thinks having the security of a knowledgeable expert reduces amount of errors
4. Classroom subjects don't always align with my interests (Sunny, Alex)
5. Guidance and support prevents quitting

Feel:

1. Feels relieved to have a knowledgeable person to help him out.
2. Feels frustrated that he can't find help online easily when need to.
3. Feels passionate about what he does and wants others to get on board (wants to teach).
4. Feels unsatisfied with the current way of learning/teaching crypto

Initial Needs and Insights (Michael, Alex, and Sunny)

Insights:

- *Online resources can be fragmented and lack structure*
- *Current ways self-learning lacks support*
- *Difficult and abstract concepts can't be easily understood through static texts/images*
- *Human guidance could make self learning more efficient*

Needs:

- *Add interactive & responsive human component to self-learning platforms and resources*
- *Better visualization for abstract concepts*
- *Make it easy for finding materials in a structured way*

Initial Needs and Insights (Sunny again)

Insight:

Staying in touch with friends via current social platforms may not be sufficient for some people, it lacks intimacy and real-time interaction.

Need:

Make digital communication more intimate and realistic.

Summary

- Self-learning needs to have more guidance and structure
- There is a need for better visual representation in teaching abstract concepts
- Timely interaction (Q and A) is very helpful