

TECHONOMY

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21st Century Skills: What Do We Need? How Do We Get There?

Speaker:

Guy Halfteck, Knack

Interviewer:

David Kirkpatrick, Techonomy

Kirkpatrick: Bringing Guy and Knack, his company, on here at Techonomy Detroit, from our point of view, was just aiming to demonstrate that it's impossible to make the kinds of predictions we think we can make about the future of our economy. Because certain things are going to come out of left field because of technology, because of big data and pattern matching and a lot of other things that are possible now that really could change the game.

I think what Knack and what Guy are doing could even change the game very concretely for Detroit, and I hope we're going to get into that. We don't have tons of time.

Guy, just quickly tell us what Knack is, or show the video, whatever you want to do. Take a couple minutes.

Halfteck: Hi, everyone. Great to be here. Very quickly, if you're about 20 years old or even if you're younger, the single most important question for you is really what's your knack or what is your potential?

The reason this is important is, if you think about human potential, this is actually our single most valuable natural resource. If you compared it to oil, gas, precious gems or iron or whatever it is, figuring out human potential, this is really the most precious, valuable, social and economic resource.

And the question is, how do we go about discovering human potential? How do we go about nurturing and developing human potential? Through placing people, helping people figure, from very early age, where they belong in terms of education, training, what's their career track, what's the right thing for them to do.

And, surprisingly, we don't have much tools for the past 50 years to go about figuring out how to match people, how to figure out their potential and match them with opportunity. This is a huge social problem. So when I think about what we're doing at Knack, Knack is about a very big mission, a very high purpose of building a company that will change people's lives and change the economics of human potential.

If you think about all the technologies that are available for discovering oil, even in the deep sea or discovering any other natural resources and harvesting electricity and wind, we don't have any comparable technology for discovering and harvesting and developing human potential. And this is a huge problem. This is what Knack is trying to change, to make this fundamental change in terms of how we empower individuals, how we empower businesses, communities and education institutions to go about figuring out what's the potential people have, how to develop that, and how to match them into opportunities.

So I'm showing you here, this is the homepage of our website. You can go to our website. It was launched basically today. And you can see some screen shots for --

Kirkpatrick: This is super new what he's talking about.

Have you ever talked about this publicly before?

Halfteck: This is actually the first time.

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Kirkpatrick: Go on.

Halfteck: Thank you, David. We actually got some press coverage, but I won't mention that here.

This is our website. And what Knack is about, more concretely, is discovering your strengths and discovering your talent through game play. What we're doing, there are three components to our technology: There is state-of-the-art behavioral science and we have six scientists on board. We design games that we weave into the games the behavioral science insights, and we collect data from your game play. As you play games -- and I'm going to show you one of the games in a second -- the game collective data observes what you do, how you do things, how you perform, how you learn, how you change your strategies, how you cope with failure, how you recover from failure.

And the power of games, if you think about why games are so fascinating and so powerful as a medium, everyone is wired to play games. As toddlers, babies, young adults or anyone else, up to very late ages, people are fascinated by games. They play games everywhere; on smart phones or on board games or anywhere else you look.

There are single player games, there are social games. So games are really a very powerful medium where they motivate people, they immerse them, engage them in experience. And we are actually building games that have a very deep social purpose, to help people, to empower them and to enable them to do better in their life.

Kirkpatrick: But when you're playing it, it's just a fun game. That's the cool part. Go ahead.

Halfteck: As you'll see in a sec.

So, here, I have here one of our games. It's called Wasabi Waiter, and it's going to be available for everyone on very soon on iTunes, Android markets.

Here you play the role of waiter in a sushi bar. You have to serve different sushi plates to different customers, based on reading their emotions. Too bad the video is -- okay.

You can see the waiter picking different dishes, serving the dishes, multitasking, clearing dishes back to the sink, trying to optimize the number of customers, the tips the waiter is getting. And the waiter has to read the emotions displayed by the customers. This is part of the challenge of this game.

What happens while you play the game is, everything you do in the game and everything you actually choose not to do and the sequence of how you do things is all being logged by our technology. And the data is then analyzed, and I'll show you what the result of that analysis is, in terms of giving you insight and feedback into your personality, to your behavior.

Kirkpatrick: Can I quickly say -- I don't know if you can read this. He's having to serve them food based on the emotion that he thinks they're showing. So it says contemptuous, disgusted, fearful, surprised, angry, sad, happy. Just so you know.

Halfteck: This level is going to be over in one minute, so we can skip to the next slide.

Kirkpatrick: But it is a fun game. I've played it.

Halfteck: David is actually doing very well, if you wondered.

The result of playing the game and the other games that we're building -- we already have four games -- is you start to unlock your behavioral DNA. You're starting to unlock your unique signature that encompasses many traits, abilities, aptitudes, personality traits ranging across very different domains of your personal makeup.

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So to show you an example here, this is not how it's displayed to users on the site. But we are able to learn from your game play about your emotional and social abilities and intelligence, about personality traits.

Kirkpatrick: Can I just read some of those?

Halfteck: Yes, please.

Kirkpatrick: So we've got extroversion, stability, agreeable, intellect. Punctuality, caution, orderly, self disciplined, rational processing, verbal intelligence, numerical intelligence, creative insight, creative achievement, divergent thinking, impulsivity, risk-taking.

Halfteck: Thank you.

All those traits are actually some of the things that we're living much more -- we are able to give much more insight to individuals playing the games.

Some games focus on other attributes. This game that you saw, Wasabi Waiter, is actually focused on emotional and social abilities, but other abilities as well. And what that enables people is to actually get insight and visibility. Very rigorous, validated with very serious science working in the background, while you play immersive engaging games and unlock and then showcase and broadcast the behavioral DNA, the very talent or human potential proposition.

Now you might ask, why is that relevant? How is that going to help people in Detroit or people in India, of any walks of life or any age group?

The implications and the ways we are going to use that technology and empower people are in a number of ways. We see many applications, but to be concrete, first and foremost is in education. Figuring out what is the right education for you. Are you into engineering, or are you into life sciences or medicine or humanities? Whatever it is. And this process, this discovery, this exploration, this insight-driven, data-driven expression can start very early on, maybe even when you're in grade school.

The other thing that we're going to use that for is for helping people discover professional opportunities. So if you think today about mainstream corporate America, using all sorts of proxies and tools to assess whether David is a right fit for a person for Google. If David doesn't have the right SAT, David is not going to have a position at any such company. I'm not speaking for Google. I don't know exactly how they recruit.

But that is a problem. That's a problem both for individuals -- that is a real problem for companies. This is an unsustainable approach to getting and finding great people. Now another thing and a theme that was developed here today: Skills are important. But skills are less important in the future of jobs and in the future of work. Because many companies -- and we hear it repeatedly from companies around the world, are looking for raw potential. They are looking for people they are going to be able to bring on board, develop them and nurture them, train them, and make them able to stick around the company and be able to assume and develop and acquire new skills. So they are really looking for raw potential, for that human potential; not for the hard skills that were acquired as part of some training program or education.

This will enable people to do exactly that, to match themselves into the right organizations, the right roles, the right culture, and do the best with their potential.

Kirkpatrick: I want to just explain a couple things. We are really trying to do this quickly. But one of the things they do, it's not entirely apparent. When they are measuring your play of that game, they are literally -- they're trying to measure every possible variable they can think of; when you hesitate, exactly how you respond when you make a mistake.

And because of big data and the ability to record and analyze that, they can take extraordinarily detailed analysis of even 15 minutes of playing the game.

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But the thing that I don't think guy has sufficiently explained is the way they are able to then make conclusions about your potentiality, is by matching the data that they've extracted from your game play with data that they've acquired elsewhere from people whose achievements and capabilities are already known. So basically, it's based on pattern matching. Right?

Halftack: Right.

Kirkpatrick: So that they can say, Well, you could be a Google product developer, because they've given this game to 20 Google product developers and they know what the average Google product developer does in this game.

So if you're a kid in Rwanda playing the game, they can actually tell you, you could be a product developer. And the reason I wanted to have it on this stage is because I think for Detroit there's some very interesting implications. Because here we have a city, which, as we've discussed a couple times on this stage, has great things happening. But just like so much of America, there is a huge population that is essentially without hope, without the opportunity to see where the new opportunities are going to be for them. There clearly are opportunities. It's about figuring out how to find those and how to convince the people that they're real.

And, you know, this is just an emblematic technology. I don't even know if Knack is going to succeed, and frankly, I don't care.

Halftack: Thank you.

[LAUGHTER]

Kirkpatrick: For your sake I do, because I like you. But the fact is, once Guy explained this and showed it to me, I realize something like this will happen. And if things like this start to happen, the whole game is off. That's the point.

I went to Amherst. That's a really cool thing, and it opened all kinds of things for me. But those kinds of pedigrees could actually begin to be very less significant in the future if, as I believe almost certain, this kind of technology begins to take off. So that's really what we're up here to try to describe.

Halftack: And to amplify David's last point, we believe that the disruptive potential of behavioral computing -- that is being able to access and get insight into the behavioral DNA, the behavioral makeup of people, and be able to use that to empower people in communication, in forming connections, in placing themselves into schools, colleges, jobs, and promoting them, training them, et cetera, this is actually a very powerful thing that will minimize the importance of pedigree of credentials.

This is going to the ultimate meritocracy of a person. This is not about whether your father was a graduate from that school or your mother was a lawyer, and therefore you should go into law. This is about really what is your potential and how you go -- you do the best in your life to maximize and realize that potential.

We think this has disruptive implications for the jobs, for the workplace, but has also disruptive implications for education generally. That's why we're very excited about it.

Kirkpatrick: Can you say any of the companies that are already using it?

Halftack: So we're working with a number of global companies. Working with Shell Oil Company, and what we're using with our games at Shell is to discover predictive success signature for high innovators.

Basically, we're running a pilot with several hundred people at Shell throughout the world where they play our games, we map their behavioral signature, the unique behavioral signature for every participant, and then we build a predictive model, algorithmically, from that data to predict what are the attributes that differentiate high innovators from everyone else.

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Once we have that signature, then we can cast a very broad net. We, i.e. Shell can cast a very broad net across the globe and find all the innovators, whether it's Shell internally -- Shell has 100,000 employees in 190 countries -- but find the kid in India that doesn't have gemma, doesn't speak English. Games are language neutral, right?

So Shell will be able, as a matter of philosophy, to bring in innovation from the outside and to find the gems, the people outside that have the capacity to come in and innovate. They won't be able to do that without that tool, and that's why we're very excited about it.

Kirkpatrick: And there's a bunch of other big companies. Can you name a couple of them, or are they secret?

Halfteck: We're working with Bain, the management consulting company, about finding business talent, and there are several other companies that will be announced.

Kirkpatrick: Some are really big. I've heard some of them.

Halfteck: The most recent development from this week, which is actually interesting, we partnered with one of the largest medical centers in New York City, where we're running a pilot to discover the success signature, what makes a great physician, and being able to use that to select and train and develop physicians for the future.

So this is actually something very exciting to us, and the social implication of that is very clear.

Kirkpatrick: And the finance and the supporters that this company has is a very impressive group, both in the business side and the scientific side.

Unfortunately, we don't have time to go into it in more detail. But I hope I've succeeded and we've succeeded in making you realize there are things -- this is just one thing. There is a lot of this stuff. I think the people who sort of sit around twiddling their thumbs, trying to think about what American competitive is going to do may not realize how quickly some of this stuff is going to change. That's the point.

Halfteck: Thank you, David.

Kirkpatrick: Thank you, Guy.

Halfteck: Thank you very much. Please feel free to go to our website, sign up for a beta invitation, so you can Knack it, too.