Spring 2018

# Oral History Conversation with Stephen Foster 

Randall Hanshaw<br>University of San Diego<br>Janaye Perry<br>University of San Diego<br>Jennie Morgan<br>University of San Diego<br>William Hays<br>University of San Diego

Follow this and additional works at: http://digital.sandiego.edu/phil332
Part of the Business Law, Public Responsibility, and Ethics Commons, and the Philosophy Commons

## Digital USD Citation

Hanshaw, Randall; Perry, Janaye; Morgan, Jennie; and Hays, William, "Oral History Conversation with Stephen Foster" (2018).
Philosophy 332: Business Ethics. 7.
http://digital.sandiego.edu/phil332/7

00:01:07.460 --> 00:01:11.840
This is an oral history conversation on social enterprise between students in

00:01:11.850 --> 00:01:17.670
business ethics at the University of San Diego and Mr Stephen Foster C.E.O.

00:01:17.680 --> 00:01:23.010
And co-founder of ThoughtStem. Stephen, before we began the conversation proper

00:01:23.180 --> 00:01:28.380
and just by way of introduction to scholars who would be listening to the

00:01:28.380 --> 00:01:32.420
that to record a recording of this conversation could you give us

00:01:32.430 --> 00:01:37.510
a brief overview of what ThoughtStem
does and the social impact you're trying to

00:01:37.520 --> 00:01:43.030
achieve? Yes So our mission is to teach computer science to kids.

00:01:44.920 --> 00:01:50.580
The reason why I'm passionate about doing that is that I think that computer science should be

00:01:50.580 --> 00:01:55.626
a basic literacy that everyone yourselves
included I'd be happy to teach you to

00:01:56.860 --> 00:01:58.210
I sort of envision

00:01:58.220 --> 00:02:03.910
a world where computer science is
taught alongside reading or math

00:02:04.500 --> 00:02:08.490
science or the basic things that you would want every child to know so I'd like to

00:02:08.500 --> 00:02:15.480
see it taught as quickly as possible or as early as possible in children's

00:02:15.490 --> 00:02:20.170
development since it's very difficult to get the school system to change in

00:02:20.180 --> 00:02:22.660
a large scale we instead founded

00:02:22.670 --> 00:02:28.600
a company try to teach computer
science at scale.

00:02:28.720 --> 00:02:35.660
So can you take us back to what it was like? Were there specific experiences that you might be able to connect

00:02:35.670 --> 00:02:41.100
with the kind of work you're doing in ThoughtStem
For example sources of

00:02:41.240 --> 00:02:46.970
inspiration or motivation. Seeds of specific ideas

Or important relationships?

00:02:48.620 --> 00:02:54.830
yes. So my mom taught me to code when I was very young.

00:02:55.380 --> 00:03:01.320
So that obviously helped. I was born in 1985, so I guess

00:03:01.320 --> 00:03:07.900
this would be the early 90 's my family had moved to Saudi Arabia when I was three so I

00:03:07.930 --> 00:03:13.710
was living abroad and we had just gotten our first computer in Saudi Arabia like

00:03:13.830 --> 00:03:19.180
women can't drive so my mom stayed home
like she wasn't working my dad worked and

00:03:19.190 --> 00:03:21.290
so she was it's like unfortunately

00:03:21.300 --> 00:03:26.290
a little bit like trapped in the house with us. Which worked out well for me it was

00:03:27.130 --> 00:03:32.140
just come up with lots of cool stuff. For myself and my siblings to do one of which

00:03:32.180 --> 00:03:35.740
randomly it was computer programming since we had just gotten our first computer

```
00:03:36.110 --> 00:03:42.060
```

and. I enjoyed I was like in kindergarten for me but so. Essentially I can't

00:03:42.070 --> 00:03:48.390
remember not knowing how to code. And I
know it's changed my life sort of knowing

00:03:48.400 --> 00:03:53.650
that from an early age. It's sort of the reason I believe it's possible for people

00:03:53.660 --> 00:03:58.260
to learn computer science early it's one of the reasons, One of the

00:03:58.510 --> 00:04:03.900
things I draw inspiration from when you're figuring out how to do that so there is

00:04:03.910 --> 00:04:08.390
that just knowing how to code early in life but also I think there's something

```
00:04:08.400 --> 00:04:09.070
```

about living in

00:04:09.080 --> 00:04:15.920
a different country that. And then coming back to America that sort of maybe makes

00:04:16.709 --> 00:04:21.360
people more aware that things don't have to be the way that they are that they can

00:04:21.370 --> 00:04:22.940
be completely different Saudi or is

00:04:22.950 --> 00:04:29.500
a very very different place. And just
the belief that change is possible well

00:04:29.880 --> 00:04:36.740
that's great. So we moved
there when I was three

00:04:36.930 --> 00:04:42.650
and came back when I was twelve as I
came back in to the sixth grade here in

00:04:42.670 --> 00:04:46.760
America. So you might of answered

00:04:46.770 --> 00:04:51.740
a few points from that last question that
I might re-ask so feel free to skip over it

00:04:51.940 --> 00:04:57.440
What inspired you to pursue computer science you mention that your mother

00:04:57.610 --> 00:05:02.980
you know introduced it to you so can you take us back to when you actually decided to

00:05:02.990 --> 00:05:05.530
pursue your doctoral studies was there

00:05:05.540 --> 00:05:10.580
a particular problem question or vision
that haunted you that made you feel it would be worth

00:05:10.590 --> 00:05:11.370
another half of

00:05:11.380 --> 00:05:18.250
a decade to be in academia.
I will admit that it

00:05:18.260 --> 00:05:22.010
wasn't thinking it through that clearly
at the time I was I was just an undergrad

00:05:22.020 --> 00:05:27.580
and kind of just making decisions without you know your long term goal but

00:05:27.590 --> 00:05:30.140
I will say so I knew hot to code from an early age but then

00:05:30.150 --> 00:05:32.080
a bad experience in high
school with kind of

00:05:32.090 --> 00:05:35.520
a terrible computer science teacher made me decide I'm never going to code again I

00:05:35.530 --> 00:05:42.180
don't like it's not my thing and so I went to college in the University of Texas and. I

00:05:42.190 --> 00:05:44.230
don't remember what I was majoring in but I dropped out after

00:05:44.240 --> 00:05:48.660
a semester I was like I don't
even like college. And I spent

00:05:48.880 --> 00:05:54.040
a couple years just like writing novels and teaching martial arts and living with

00:05:54.050 --> 00:05:58.350
my parents and honestly only went back to school because my little sister was about

00:05:58.360 --> 00:06:01.820
to go to college and I didn't like want to
get her in like get ahead of me I'm not
a very good reason but I'm just trying to try to be honest I would like to see.

00:06:05.600 --> 00:06:10.860
So I went back to school and I have
majored in English. Computer Science wasn't on the

00:06:10.870 --> 00:06:17.400
radar switched to philosophy which is what I actually got my degree and I happened

00:06:17.550 --> 00:06:22.530
to just I think it was actually because I
I didn't want to take math, Like I was afraid

00:06:22.540 --> 00:06:26.890
of math so I took computer science instead just to try to get rid of the math

00:06:26.900 --> 00:06:33.690
requirement. And luckily had an excellent professor in that class and so I

00:06:33.700 --> 00:06:38.240
took the next computer science class and the next alongside my philosophy classes

00:06:38.510 --> 00:06:43.280
and just lucked into the fact that double majored in both because I enjoyed

```
00:06:43.290 --> 00:06:48.020
```

computer science and so I had the option
when I was graduating to go to graduate
00:06:48.030 --> 00:06:54.780
school in philosophy or computer
science or neither i suppose was is also an
00:06:54.790 --> 00:07:00.510
option but I was dating somebody at the time I'm still dating who was going to

00:07:00.680 --> 00:07:05.530
grad school and so I kind of swayed me to want to do grad school so there was just

00:07:05.540 --> 00:07:10.400
a choice between philosophy and computer science and I chose relatively

```
00:07:10.410 --> 00:07:14.100
```

arbitrarily based on the fact that it's just

00:07:14.1 10 --> 00:07:18.010
a more sound long term
decision to have a Ph D.

00:07:18.020 --> 00:07:20.250
In computer science than in philosophy.

00:07:20.580 --> 00:07:25.270
So do you think having a major in Philosophy change

```
00:07:25.270 --> 00:07:31.790
```

your thinking in wanting to change people's
minds?
Yes, absolutely. I think it's

00:07:31.800 --> 00:07:35.780
something I recommend to people who are majoring in computer science they should

```
00:07:35.820 --> 00:07:39.130
```

also major in something else like something that makes them think critically

00:07:39.140 --> 00:07:42.250
about the world because otherwise you end
up with all these great skills but then

00:07:42.260 --> 00:07:47.890
not be like attitude for leveraging
it to make change.

00:07:47.890 --> 00:07:54.310
Great so I'm curious and I really like your website and we've noticed you like to use

00:07:54.310 --> 00:08:01.500
the most effective techniques that challenge experts and also to introduce it to the world of computer science

00:08:01.510 --> 00:08:06.640
So I'm wondering if you would mind walking us through some of the stories or examples that illustrate how you

00:08:06.680 --> 00:08:12.020
explored those techniques and how you went about measuring the ones that are most effective?

00:08:12.020 --> 00:08:13.480
So that was a lot of my Ph D.

00:08:13.490 --> 00:08:19.950
Work I saw that research was on using video games and

00:08:20.440 --> 00:08:27.000
gameification to teach computer science.
And so that that's something that

00:08:27.010 --> 00:08:33.460
we do at Boston, as well as try to basically the idea is to try to relate computer

00:08:33.470 --> 00:08:39.720
science to things that kids at that age
care about which for many of them is video

00:08:39.730 --> 00:08:42.890
games and so that plays out in

00:08:42.900 --> 00:08:48.290
a variety of ways one of which is that we have to build their own video games just

00:08:48.300 --> 00:08:49.560
so that they're coding in

00:08:49.570 --> 00:08:55.640
a context that's that's meaningful for them. And then also in the classroom

```
00:08:55.650 --> 00:08:59.420
```

structure we try to gameify
that experience with
00:08:59.430 --> 00:09:05.990
rather than have like tests or quizzes, we call them quests and as they go

```
00:09:06.000 --> 00:09:11.270
```

through quests and kind of achieve different
things we give them like points in the

00:09:11.280 --> 00:09:15.020
form of physical printed dollars
like they're not real dollars obviously

00:09:15.030 --> 00:09:18.760
they're like printed out look like sort of like Monopoly money I guess and

00:09:18.770 --> 00:09:19.680
they can redeem that's

00:09:19.690 --> 00:09:24.850
to buy like prizes at the end of class
so it's just kind of make the learning

00:09:24.860 --> 00:09:29.070
experience into a game as well
so learning experience is

00:09:29.080 --> 00:09:34.700
a game and they are physically building
games that's their product.

00:09:34.710 --> 00:09:39.630
And so it also says on your website that you design these programs to do more than preparing

00:09:39.640 --> 00:09:42.090
The children for tomorrow's world

00:09:42.100 --> 00:09:46.320
They induce friendships, create lots of memories in child's imaginations. So you kind of explained a little bit of it,

00:09:46.320 --> 00:09:49.320
Im wondering if you could walk us through what a typical

00:09:49.320 --> 00:09:55.900
child's day might be like at ThoughtStem and how do they get to have these important life experiences

00:09:55.900 --> 00:09:58.870
as they're learning to code.

00:09:58.880 --> 00:10:05.480
So a typical day is, so we teach during the year not during

00:10:05.490 --> 00:10:10.130
the summer we teach in afterschool programs so their typical day would be they go

00:10:10.140 --> 00:10:15.180
to their normal school is they do English math reading whatever and they then when
school is out they come to our afterschool program because their parents of previously

00:10:19.710 --> 00:10:23.890
signed them up for that and and then they
do computer science for

00:10:23.900 --> 00:10:24.980
another hour and

00:10:25.010 --> 00:10:31.870
a half and then they go home but then.
To sort of touch on the point of

00:10:31.880 --> 00:10:38.850
like lasting friendships and relationships. So I believe

00:10:38.860 --> 00:10:44.920
and it's backed up well by my research that learning occurs best when it's in

00:10:44.930 --> 00:10:51.390
a social context when you know people example would be you know people in your class

00:10:51.400 --> 00:10:55.120
you're friends with them you connect with the instructor.

00:10:58.590 --> 00:11:03.610
Largely I think that people
people don't choose to go into

00:11:03.620 --> 00:11:09.230
a field because that field attracts them so much as they met someone who was

00:11:09.230 --> 00:11:13.410
passionate about that field when they were
young and it was conveyed to them that

00:11:13.660 --> 00:11:16.090
that is something they might
also enjoy. Do you feel

00:11:16.090 --> 00:11:19.670
a lot of the students that come to your courses you feel that

00:11:19.680 --> 00:11:23.790
a lot of parents force them in it and then they end up liking it or do you feel like the

00:11:23.880 --> 00:11:28.330
kids are sitting there feeling forced to get there and then they

00:11:28.350 --> 00:11:29.440
relax after

00:11:29.450 --> 00:11:33.530
a while and make friends?
You know it's both honestly we get both kinds of students

00:11:33.540 --> 00:11:37.080
we definitely have the kids who don't want to be there at all their parents but their

00:11:37.090 --> 00:11:41.430
parents do computer science or have heard that it's good and they make them do it

00:11:41.770 --> 00:11:44.330
those are the ones that are kind of the hardest to deal with because you have to

00:11:44.340 --> 00:11:48.520
convince them they want to be there, but we also get many of the other side who you know

00:11:48.530 --> 00:11:53.320
they're like I love videogames I want
to make my own video games or I love

00:11:53.380 --> 00:11:58.670
Minecraft the popular video game probably
heard of it or played it I want to use

00:11:58.680 --> 00:12:00.470
code to modify Minecraft it's

00:12:00.480 --> 00:12:05.720
a very popular thing kids want to do with coding and so that's one thing we provide

## 00:12:05.720 --> 00:12:11.010

To give them some advice, but it's across
the spectrum.
Well the prizes help?

00:12:11.010 --> 00:12:12.950
The prizes do help for sure.

00:12:14.770 --> 00:12:24.580
So its not only Minecraft, that, are you only doing Minecraft? Or is there other video games as well? Yeah so Minecraft is the one video we have

00:12:24.580 --> 00:12:29.240
them like that use code to modify, but then you know that you know other classes

00:12:29.240 --> 00:12:35.390
they built their own video games and we honestly have other curricula as well like

00:12:36.270 --> 00:12:43.200
robotics for example and. Digital
Arts. Things it's coding is the

00:12:43.200 --> 00:12:49.400
common theme, but in video games we try to
have games, I said viedo games, really games

00:12:49.400 --> 00:12:56.380
in general is something we try
to have the theme through whatever. Oh

00:12:57.400 --> 00:13:03.530
On a completely different note, woman are underrepresented

00:13:03.540 --> 00:13:09.920
in the field of computer science, how is ThoughtStem
working to reduce the gap between male

00:13:09.920 --> 00:13:12.370
and female voters? Yeah so it is

00:13:12.380 --> 00:13:18.060
a big problem in the field for sure and
ThoughtStem can't change it all on our own but

00:13:18.110 --> 00:13:21.040
what we're trying to do is just hire

00:13:21.050 --> 00:13:27.320
a lot more women instructors so that
kids who go through our courses see

00:13:27.340 --> 00:13:31.730
generally kids stick with our courses since they take it with multiple instructors

00:13:31.740 --> 00:13:36.250
and I want them to see like wow I had seven women instructors and three men

00:13:36.260 --> 00:13:38.060
instructors and I don't
think it registers at

00:13:38.070 --> 00:13:40.720
a conscious level but I believe that they'll grow up with

00:13:40.730 --> 00:13:43.020
a perception that it's nice to say it's

00:13:43.030 --> 00:13:44.900
a young young woman I believe they'll grow up with

00:13:44.910 --> 00:13:47.910
a perception is something that they can do because they've seen the representation

00:13:47.920 --> 00:13:54.830
in their teachers. So,for the kids you

00:13:54.840 --> 00:13:59.370
have them do Minecraft and stuff. What from that kind of would help them take

00:13:59.380 --> 00:14:03.810
college courses where are you trying to light shape them so like the college

00:14:03.820 --> 00:14:08.350
courses that we have I T M G here and other computer science courses here what do you

00:14:08.360 --> 00:14:12.610
think that you're trying to give that that will most likely help them with that?

00:14:12.710 --> 00:14:16.310
Well, what was really pretty cool about computer science is that there's

00:14:16.320 --> 00:14:22.470
a relatively small set of core concepts
that are there whether you're coding

00:14:22.480 --> 00:14:27.770
a robot coding Minecraft coding a video
game coding digital art or taking

00:14:27.780 --> 00:14:33.600
a computer science class in college and coding whatever they happen to have you do

00:14:33.610 --> 00:14:38.860
So, within our classes, that core set of of concepts gets reinforced and then they

00:14:38.870 --> 00:14:41.000
go to college they're
not going to encounter

00:14:41.010 --> 00:14:45.020
a brand new concept is there really aren't
that many in this sort of like you know

00:14:45.030 --> 00:14:49.910
introductory computer science concept bundle,so we teach the same ones

00:14:49.920 --> 00:14:53.550
same concepts that you would learn to intro to
to computer science at the college level

00:14:53.840 --> 00:14:59.150
Oh so wow ! You're teaching already to the kids? Hmm hmm. Usually about what age?

00:15:00.060 --> 00:15:04.990
So, our biggest age range, well we teach
all the way from kindergarten up to

00:15:05.060 --> 00:15:11.970
through Senior High School but ours are.
The largest population of students is in the

00:15:12.310 --> 00:15:18.170
Elementary school range. So are you kind of already teaching the college level

00:15:18.170 --> 00:15:22.000
ITMG stuff already to the elementary school kids? or is it more of

00:15:22.010 --> 00:15:28.810
a high school? No I would say that there's there are things we teach to elementary

00:15:28.820 --> 00:15:29.900
school students that

00:15:30.160 --> 00:15:34.640
a first year college student also learns for sure that there is definitely process

00:15:34.690 --> 00:15:39.310
did you integrate things that you
personally wanted to know going in to your

00:15:39.310 --> 00:15:43.930
computer for doctoral studies and you'd wish you had learned during your

00:15:43.930 --> 00:15:48.230
classes of computer science that you're
kind of integrating into teaching the

00:15:48.290 --> 00:15:55.080
children now? I wouldn't say going into my doctoral studies but definitely

```
00:15:55.090 --> 00:15:59.850
```

going into my undergrad studies there are things that I have learned or didn't

```
00:15:59.890 --> 00:16:06.020
```

learn that that I think people should learn
and so we try to teach those things but

00:16:06.030 --> 00:16:11.470
it's less about the concepts because as I mentioned those those stay relatively the

00:16:11.480 --> 00:16:15.310
same just because computer science is computer science no matter how you're

00:16:15.320 --> 00:16:20.950
teaching it right it's more that when I was an undergrad although I enjoyed my

00:16:20.960 --> 00:16:25.900
computer science classes leave disliked how like dry and boring you like lectures

```
00:16:25.910 --> 00:16:31.730
```

could be and so so the way that we teach
is supposed to be highly engaging

00:16:32.440 --> 00:16:34.960
specifically because I
have sat through many

00:16:35.800 --> 00:16:40.740
a not highly engaging class and in college and so I think one more question I

00:16:40.750 --> 00:16:45.260
really have for you is I was very surprised I'm so from Silicon Valley I've got I'm

00:16:45.300 --> 00:16:50.090
right next to Google and Apple I see all the coders all day yeah you could easily

```
00:16:50.100 --> 00:16:52.280
```

be up there making over $\$ 300 \mathrm{k}$.

00:16:52.680 --> 00:16:58.300
Do you feel more it's more meaningful in your life because you feel like you're

00:16:58.310 --> 00:17:03.010
more like engaged with the kids and stuff and you get more meaning out of that

00:17:03.020 --> 00:17:06.700
compared to being stuck behind a desk all day coding for

00:17:06.710 --> 00:17:12.790
a big company? Yes I'm definitely get
more out of what I'm doing than

00:17:12.800 --> 00:17:16.920
than if I was a Code Monkey, I did
right out of I skipped over this

00:17:17.010 --> 00:17:19.400
a moment ago but right out of college I spent a year just at

00:17:19.410 --> 00:17:25.310
a traditional. Coding job I made more money then right out of right out of college

00:17:25.319 --> 00:17:32.280
than now. But I hated that job yeah and I like this one. That's rad !

00:17:32.290 --> 00:17:36.680
I'm glad to hear you're a passionate person. Yeah and I also like I'm kind of lucky I just

00:17:36.690 --> 00:17:39.490
don't care about money that
much and so I don't there's not

00:17:39.500 --> 00:17:41.210
a lot of stuff I want to buy

00:17:41.220 --> 00:17:45.650
I'm kind of a minimalist, I don't need to even be making want I make now

00:17:45.660 --> 00:17:50.510
it's you know I don't know what to do with the money. Give it to your girlfriend ! Yeah I know right? Haha

```
00:17:51.650 --> 00:17:57.370
```

She's also minimalist unfortunately, but something but yeah so it's like.

00:17:58.720 --> 00:18:02.300
You're right I could definitely
go to Silicon Valley or even

00:18:02.310 --> 00:18:07.930
a company here in San Diego and make
significantly more. But it would be more that

00:18:07.940 --> 00:18:11.570
I don't know what to do with and then I'd
have to deal with the cost of like having

00:18:11.580--> 00:18:16.790
a boss and not having as much creative
freedom and not necessarily making an impact

00:18:16.800 --> 00:18:24.880
on the world and something that means
something. I don't know almost anything about computer programming.

00:18:24.880 --> 00:18:25.930
But, it's like

00:18:25.860 --> 00:18:32.840
a language correct? Yes. So do you believe that, I know
with most languages it's easier to learn

00:18:33.130 --> 00:18:39.440
as a child than an adult. Do you feel like computer programming is the same way? Where people, almost

00:18:39.450 --> 00:18:44.250
kindergartners are picking it up just as fast, or if not faster, than the

00:18:44.260 --> 00:18:49.680
high schoolers you are teaching? You know that's that
is an interesting question, it's

00:18:49.690 --> 00:18:54.800
a good hypothesis but I actually don't think
that's true yeah I guess it is kind of

00:18:54.810 --> 00:19:00.720
like a language. The thing that, and they do
pick up like young kids

00:19:00.730 --> 00:19:02.900
some parts of it really
quickly but there's also

00:19:02.910 --> 00:19:07.610
a kind of mathematical sophistication
that's required to not to get it in

00:19:07.650 --> 00:19:11.600
initially but like you need it eventually
so that you can keep progressing.

00:19:11.640 --> 00:19:15.830
Also the attention span correct? Yes, that's true of this is the challenge is just keeping them looking at the

00:19:15.840 --> 00:19:22.610
computer running out or just playing
video games and coding Yeah yeah. But

00:19:22.610 --> 00:19:29.410
Yeah so it's like, they'll pick up
some stuff but, they also like need

00:19:29.420 --> 00:19:34.100
to like gain more like mathematical skills and mathematical sophistication and so they're

00:19:34.240 --> 00:19:36.030
they're sort of slowed down

00:19:36.040 --> 00:19:40.010
a little bit by that so as an
adult if you like if you taken

00:19:40.360 --> 00:19:45.040
a reasonable amount of high school mathematics
you can have that foundation that

00:19:45.290 --> 00:19:49.460
lets you switch to computer science more easily than someone who doesn't have

00:19:49.480 --> 00:19:54.860
a mathematical foundation. Also if your students are picking it up so fast, are they using it everyday?

00:19:54.860 --> 00:19:58.990
Are your students using it every single day? We try to incentivize that, but no not necessarily

00:19:59.000 --> 00:20:02.750
there are other definitely some kids who come to our class and they go home and play video games and

00:20:02.760 --> 00:20:05.860
then they come back next week and they
learn something but not nearly as much as

00:20:05.870 --> 00:20:11.590
the ones who are like I love this, I'll do it at home! So to switch back to your

00:20:11.630 --> 00:20:16.940
creative/entrepreneurial side of your story. In one of our readings in our course, we learned about

00:20:16.950 --> 00:20:22.170
Frank Knight's theory of profit and how he distinguishes entrepreneurs from salary managers

00:20:22.340 --> 00:20:27.290
and whereas salary managers have the competence to manage business risk, while entrepreneurs

```
00:20:27.300 --> 00:20:32.110
```

are unique, in which they have both the confidence and the courage to deal with the uncertainty invovled

00:20:32.150 --> 00:20:33.820
with executing an entire idea

00:20:33.860 --> 00:20:38.600
or creating a new market, so I was wondering if you can share a life experience where you had to deal with this

00:20:38.610 --> 00:20:39.880
this uncertainty

00:20:39.880 --> 00:20:45.250
Maybe, how you mustard the confidence and courage to deal with it especially entering this said field.

00:20:47.2 10 --> 00:20:52.500
It's a tough question. Well. OK I'll take

00:20:52.510 --> 00:20:56.220
a stab at answering and you can if I didn't quite answer it you can feel free to

00:20:56.240 --> 00:21:01.020
ask again but I think I'm somewhat
lucky that I don't have like a

00:21:01.200 --> 00:21:05.620
a lot to lose, I don't have kids, I don't have

00:21:05.690 --> 00:21:07.890
a big house I don't own

00:21:07.900 --> 00:21:12.290
a lot of stuff and I don't have like an
expensive lifestyle that I need to maintain

00:21:12.300 --> 00:21:17.640
so like at all times when I've been
starting or thinking about starting where

00:21:17.650 --> 00:21:23.250
starting or running this business I'm always able to say to myself, doesn't

00:21:23.250 --> 00:21:28.300
matter if it fails I'll be fine I'm not
going to lose my lifestyle won't change.

00:21:29.570 --> 00:21:34.920
You know that my kids will not starve, have kids to be starving so.

00:21:36.530 --> 00:21:41.420
I guess that sort of assists in having some amount of courage and risk seeking

00:21:41.740 --> 00:21:43.380
behavior I mean starting

00:21:43.390 --> 00:21:47.320
a business is risky in the sense that you don't know over the last forever but.

00:21:49.880 --> 00:21:56.110
Cool, and maybe can you describe maybe some challeneges that you had starting up ThoughtStem, maybe maintianing it

00:21:56.110 --> 00:22:02.030
And mention how old the program is. So we founded it in 2013.

00:22:04.070 --> 00:22:06.290
And it's 2018 now, so

00:22:06.470 --> 00:22:13.460
a few years old. Some of the challenges
that we faced in the I think starting

00:22:13.470 --> 00:22:17.830
Maybe, starting it, creating it, maybe some uncertainty. More the entrepreneurial side

00:22:20.760 --> 00:22:25.820
Yeah you know so we when we first started it.

00:22:27.930 --> 00:22:34.560
The vision wasn't what it is now we just started it as myself and two other grad

00:22:34.570 --> 00:22:36.000
students at U.C.S.D.

00:22:36.230 --> 00:22:42.220
And we. Should we just started going out to the beach and inviting other people

00:22:42.230 --> 00:22:47.010
and teaching them stuff like that we call it "free school and the beach" and it was

00:22:47.020 --> 00:22:52.370
fun but it kind of sort of dissolved because we couldn't get people to keep coming

00:22:52.710 --> 00:22:58.170
in like I like this idea of just free
public education and kind of grassroots

00:22:58.670 --> 00:23:04.690
people teaching other people. But. But yeah
it was hard to get people to come stay

00:23:04.700 --> 00:23:07.130
in the habit of coming so real
like well what if we did it as

00:23:07.140 --> 00:23:10.840
a business for like two hundred people and they put some money down so that they at

00:23:10.850 --> 00:23:15.800
least how are invested and so we pivoted to running that sort tutoring company in

00:23:15.810 --> 00:23:19.710
computer science for kids.
That was a U.C.S.D.

00:23:20.350 --> 00:23:24.460
And. And after reading that for

00:23:24.500 --> 00:23:29.990
a few months for like OK well let's hire someone to do the tutoring with us or for

00:23:30.000 --> 00:23:34.430
us that we can teach more people and so we did that hired our first employee and.

00:23:35.470 --> 00:23:37.500
At that point were like oh maybe we should like actually make

00:23:37.510 --> 00:23:41.490
a business out of it and like figure out what it means to start to see an

00:23:41.500 --> 00:23:45.990
incorporated something like that so I have
some challenges just like getting over

00:23:46.000 --> 00:23:50.240
that paperwork hurdle of figuring out what you're even supposed to do programatic

00:23:50.250 --> 00:23:50.720
way to get

00:23:50.730 --> 00:23:56.970
a business officially started. It wasn't
that bad though because we just grad

00:23:56.980 --> 00:24:00.700
students and not. All that we had no
business experience were pretty good at

00:24:00.710 --> 00:24:06.160
reading directions and following that stuff. But then we started branching out we

00:24:06.170 --> 00:24:10.190
had a few more. Locations and it's

00:24:10.200 --> 00:24:13.970
a lot of challenges challenges for us always happened at a sort of like

00:24:13.980 --> 00:24:18.280
a growth threshold I've gone from zero employees to won and that was that was

00:24:18.290 --> 00:24:23.770
tricky going from WANT TO ten that was also tricky because now there's like

00:24:24.170 --> 00:24:30.340
significant like management involved and I mean we have probably fifty people you

00:24:30.350 --> 00:24:34.410
know on payroll and so going from
ten to fifty has been a challenge

00:24:34.740 --> 00:24:39.660
a lot of those challenges require us to build more. Like business software for us

00:24:39.670 --> 00:24:43.980
to help manage people because we can't
afford to higher levels and levels of

00:24:43.990 --> 00:24:48.430
managers like it has to be sort
of automated but luckily like I'm

00:24:48.440 --> 00:24:52.520
a coder and so in addition to running the company I also feel it's offer to run the

00:24:52.530 --> 00:24:53.430
company for me.

00:25:04.920 --> 00:25:11.750
So my uncle teaches a high school in Santa Barbara uses Minecraft is

00:25:11.800 --> 00:25:18.300
a way just students to do kind of research you know saw it is that the

00:25:18.310 --> 00:25:21.000
reason you chose Minecraft was because it was such

00:25:21.020 --> 00:25:27.490
a simple but for the you're able to get kindergarteners.

```
00:25:28.610 --> 00:25:33.890
```

I guess our our direct motivation was just the market appeared to want it like

00:25:33.900 --> 00:25:38.690
actually we started out just teaching I
don't even remember what it is like it was

00:25:38.860 --> 00:25:43.240
started out teaching robotics and people
would come in and we'd ask them Do you

00:25:43.250 --> 00:25:45.620
like what you're doing or you want to learn anything else and people just kept

00:25:45.630 --> 00:25:48.240
saying oh my craft I want to learn minecraft

00:25:48.250 --> 00:25:52.540
a rifle which probably figure out what is Minecraft and figure out what's Minecraft

00:25:52.550 --> 00:25:59.440
and how to code Minecraft some tools to
help people my craft better so we didn't

00:25:59.450 --> 00:26:05.370
choose it specifically because it's appropriate like approachable for kids but

```
00:26:05.410 --> 00:26:10.100
```

because it's approachable for kids is why it's popular and we started providing it

00:26:10.110 --> 00:26:16.560
because it's popular it's three in the behind of hours and hours and yeah OK Same

```
00:26:16.570 --> 00:26:22.960
```

here I can't explain what you're having them code within the game

```
00:26:23.980 --> 00:26:30.330
```

Yeah yeah so we have been coding mods which is like an extension to the game for

00:26:30.340 --> 00:26:32.170
example the way my craft has

00:26:32.180 --> 00:26:37.070
a certain like set of creatures that are
in the game like pigs and cows and sheep

00:26:37.080 --> 00:26:42.040
in rivers and endermen and through Mods you can add new ones that weren't there

00:26:42.300 --> 00:26:45.620
that the designers didn't put in
you can put and so you just kind of

00:26:45.630 --> 00:26:52.510
customizing it for yourself and your friends.

00:26:52.730 --> 00:26:59.730
as well skills your teaching the kids.
And I don't have any skills

00:26:59.740 --> 00:27:06.570
his kids go oh. Yeah so there's
this kind of list of like well. What skills are you teaching

00:27:06.580 --> 00:27:13.270
accepted like introductory concepts
it's Examples might be like. IF statements

00:27:13.280 --> 00:27:14.340
statements that's like
a logical if like if this is true do this but it's not to this other thing. There

00:27:19.940 --> 00:27:24.910
is loops where it's like run this bit of code but then loop back and run it again

00:27:24.920 --> 00:27:27.260
and look back. And run again in the back and run again so that's

00:27:27.270 --> 00:27:33.460 a common structure in any coding no matter what you're doing. Functions like

00:27:33.660 --> 00:27:39.270
mathematical functions like this these two inputs come in and then this other input

```
00:27:39.310 --> 00:27:40.080
```

comes out that's

00:27:40.090 --> 00:27:45.490
a very core concepts in math but also absolutely of course concepts and coding as
00:27:45.500 --> 00:27:49.740
well there's just three examples of like introductory concepts we teach it to the

00:27:49.750 --> 00:27:53.110
kids and we teach it over and over and over to the kids it's not like something you

00:27:53.120 --> 00:27:56.230
just teach once and they get it like you have to really it's like

00:27:56.240 --> 00:28:02.200
a language where like let's just pretend
it's Spanish like I can teach you like you

00:28:02.210 --> 00:28:08.330
know ten Spanish words an immense grammar but one lesson is not enough like you

00:28:08.340 --> 00:28:12.320
have to not just know it like you have to internalize it or it's like repeating it

00:28:12.760 --> 00:28:16.760
over and the reason is you know if you give them verses Exactly exactly so there's

00:28:16.770 --> 00:28:20.740
a level of mastery we're trying to get people to and it's the repeated exposure to

00:28:20.810 --> 00:28:25.770
this or more concepts. Just want more of.

00:28:28.080 --> 00:28:32.600
You think. Your business idea is.

00:28:35.130 --> 00:28:38.460
Your Business. What are you a philosophy major.

00:28:41.830 --> 00:28:44.250
thats a good question

00:28:44.260 --> 00:28:48.700
a good question I don't know I haven't
thought about that so my in my school was

00:28:49.430 --> 00:28:49.830
maybe

00:28:49.840 --> 00:28:54.490
a little unique there's sort of two kind
two major branches of philosophy there's

00:28:54.500 --> 00:28:58.390
the there's what's called analytical
philosophy was which is by far the most like

00:28:58.760 --> 00:29:02.900
popular and most most most taught and most practiced form of philosophy and then

00:29:02.910 --> 00:29:06.880
there's that minority which is continental
philosophy which is actually what I did

00:29:06.890 --> 00:29:12.230
in continental philosophy focuses on and different philosophers but also has

00:29:12.240 --> 00:29:18.130
a much stronger in emphasis on.
Social change and social critique.

00:29:19.180 --> 00:29:25.100
It's where you would find like like feminist theory and clear theory and

00:29:26.080 --> 00:29:32.940
Marxist theory so picking
one particular philospher for is

00:29:32.950 --> 00:29:38.580
a little hard and so maybe about it but.
Yeah just like you're being critical about

00:29:38.670 --> 00:29:44.150
that. In critical about the world but
honestly not so critical that all you do is

00:29:44.160 --> 00:29:45.160
criticize

00:29:45.560 --> 00:29:49.240
a lot of philosopher friends who that's all they do is like find stuff wrong with

00:29:49.250 --> 00:29:54.690
everything and that's fine I think you
should add on to that as on some actual

00:29:54.700 --> 00:29:59.150
action like change something that you're criticizing not them just going on hiring

00:29:59.150 --> 00:30:04.620
. Programmers for many years.

```
00:30:06.740 --> 00:30:07.940
```

I just guess you know you have

00:30:07.950 --> 00:30:12.620
a huge extensive background in computer science how do you think the future is

00:30:12.630 --> 00:30:17.910
going to kind of develop with computer science from what we have right now and are

00:30:17.950 --> 00:30:22.730
do you think that the shaping of these
kids now they'll be have the innovators and

00:30:22.740 --> 00:30:28.990
of this new future I
think so so what I'd love to see is

00:30:29.830 --> 00:30:31.370
everyone knows I would love to see

00:30:31.380 --> 00:30:35.550
a world where everyone knows computer science
and sort of if you think through what

00:30:35.560 --> 00:30:39.410
that means that means there's not necessarily going to be like

00:30:39.420 --> 00:30:44.300
a software industry you might not even
have software engineering work coding as

00:30:44.310 --> 00:30:47.630
a job title anymore or just same
way you like you don't have like

00:30:47.970 --> 00:30:52.050
a professional reader or writer as

00:30:52.060 --> 00:30:55.130
a job title because it's expected that everyone knows it and you're going to use it

00:30:55.140 --> 00:31:01.410
in any job so that's kind of the main thing
I'd love to see that hopefully in my

00:31:01.420 --> 00:31:06.290
lifetime is some critical mass of people who understand basic coding as

00:31:06.300 --> 00:31:13.120
a literacy alongside reading math and writing science such that maybe

00:31:13.130 --> 00:31:13.590
there's not

00:31:13.600 --> 00:31:19.970
a coding industry anymore but but. Although there's not an industry for it there's

00:31:19.980 --> 00:31:24.370
much more code being produced much more tech innovation happening it's just

00:31:24.380 --> 00:31:30.690
organically across all fields. If you do the political side of trying to be have

00:31:30.700 --> 00:31:35.440
are you a advocate on the political side fighting for computer science in school

```
00:31:35.450 --> 00:31:39.800
```

a new computer program is
like. From a young age

00:31:39.810 --> 00:31:46.670
a real class not to call it in our schools
if you don't think I would love to

00:31:46.680 --> 00:31:51.750
see it no I haven't like sought out avenues to do that other than just advocating

00:31:51.760 --> 00:31:57.270
to people that it ought to happen but
really you have to get there you know these

00:31:57.280 --> 00:32:03.700
are people talking and they're
just not right. But I am

00:32:04.080 --> 00:32:08.750
said Tomorrow I'm going to the Computer
Science Teachers Association here in San

00:32:08.760 --> 00:32:13.390
Diego is going to meet people who are teaching computer science or the passionate
about it some of the people in school so yes I'm interested in mathematics as I

00:32:18.470 --> 00:32:19.180
mentioned earlier is

00:32:19.190 --> 00:32:24.090
a frustratingly slow to deal with the school system it just takes forever for them

00:32:24.100 --> 00:32:25.510
to change it is

00:32:25.520 --> 00:32:28.400
a big change you're right and then
school system since I'm not adopt

00:32:28.410 --> 00:32:33.030
a big change on lots of you from. And this was

00:32:33.040 --> 00:32:37.340
a little bit off topic but I just wanted to hear your opinion with everything going

00:32:37.350 --> 00:32:40.930
on in the trump administration he's kind of been very lax and I've been taking off

00:32:40.940 --> 00:32:45.450
a lot of regulations one of them being like Internet regulations what in your

00:32:45.460 --> 00:32:49.810
opinion how does that affect everyone because I personally used to have

00:32:49.820 --> 00:32:54.050
a huge computer background and I don't quite understand what was happening if I was

00:32:54.060 --> 00:32:58.750
hoping maybe you did and if you don't
know words yeah that's it's hard to know.

00:33:00.370 --> 00:33:07.180
Both sides of that issue have their life
story of what bad thing might happen. So

00:33:07.220 --> 00:33:11.120
what bad thing might happen to us if it has not happened and they're all might not

00:33:11.310 --> 00:33:17.810
but it might be the case that now you
know. It's harder like maybe one of our

00:33:17.820 --> 00:33:23.000
competitors starts paying more money and so our customers are able to access their

00:33:23.010 --> 00:33:27.980
website faster than our website and so we would have to pay more money so that just

00:33:27.990 --> 00:33:28.280
is not

00:33:28.290 --> 00:33:33.860
a money war right now it's not that way that's just the way what people that's I'm just

00:33:33.870 --> 00:33:37.880
giving that as an example what can bad thing people say might happen but I will

00:33:37.890 --> 00:33:41.980
also say that hasn't happened I don't I
personally don't believe that it will come

00:33:42.130 --> 00:33:46.850
so so you don't think he's really done
anything to affect the like Internet world

00:33:46.910 --> 00:33:52.930
terribly not yet as it very well
could be wrong about that I am

00:33:52.940 --> 00:33:58.100
a supporter of net neutrality and wish
that that wasn't deregulated but I'm also

00:33:58.110 --> 00:34:01.280
not of like I'm doing prior and in the sense that I think that it's going to

00:34:01.290 --> 00:34:06.810
immediately cause things to you know blow
up it hasn't for us but I again time will

00:34:06.820 --> 00:34:09.179
tell I don't know yet this is

00:34:09.190 --> 00:34:15.500
im curious to be honest

00:34:16.120 --> 00:34:21.739
so to take it back to minecraft

00:34:23.710 --> 00:34:28.800
So if we can take it back to Minecraft. So you might be facing one potential issue because of the market might not even support

00:34:28.840 --> 00:34:35.429
the software the Microsoft might offer. So if thats the case then you might have to go to the console

00:34:35.440 --> 00:34:41.159
that gets away from computers, so are you taking any steps to deal with this

00:34:41.170 --> 00:34:46.179
situation. Some Yeah I'll back up

00:34:46.190 --> 00:34:50.340
a little bit in that we. We started
teaching Minecraft like just

00:34:50.380 --> 00:34:57.170
a few months maybe four months before
Minecraft was acquired by Microsoft and we

00:34:57.370 --> 00:34:57.810
were

00:34:57.890 --> 00:35:02.880
a little worried then because we had just started developing software arounds modding

00:35:02.890 --> 00:35:07.790
Minecraft one of our products is learned
to mod which is online environment from

00:35:07.800 --> 00:35:11.240
ADI Minecraft and so we weren't sure if they were going to shut it down, I don't know.

00:35:12.580 --> 00:35:17.700
And generally speaking they just haven't
cared honestly they haven't shut us or

00:35:17.740 --> 00:35:21.440
anyone else down. Because we had

00:35:21.450 --> 00:35:27.260
a lot of people that like to MOD

00:35:28.540 --> 00:35:31.420
Yeah definitely and I mean my kids have come to our class and they don't have

00:35:31.430 --> 00:35:36.000

Minecraft they have to go buy Minecraft. Have you contacted Minecraft for a possible collaboration? Yeah actually we have

00:35:36.010 --> 00:35:40.410
a sort of loose partnership or early on with with with Microsoft in which we are

00:35:40.420 --> 00:35:44.940
helping to teach with Minecraft and it was a lot of fun, we got to meet

00:35:44.950 --> 00:35:49.780
a lot of the key players in Microsoft who are dealing with Minecraft that we do

00:35:50.040 --> 00:35:53.830
kind of know them like we have occasionally shot them an email, saying " can we even do this,

00:35:53.840 --> 00:35:59.560
is it OK?" They've always been friendly about it so so I'm not

00:35:59.570 --> 00:36:04.330
worried but there is in terms of taking steps just just in case yes there is

00:36:04.340 --> 00:36:10.640
a there's an open source version version
of an open source like Im Clone let's say

00:36:10.650 --> 00:36:17.400
a clone of my Minecraft called mine test which
is honestly very similar looking in

00:36:17.410 --> 00:36:22.580
terms of gameplay and and so if it became the case that they said you cannot

00:36:22.590 --> 00:36:27.430
use Minecraft in an educational setting we
would just pivot it to use Mine test and

00:36:27.520 --> 00:36:32.060
the kids would be just as happy honestly we piloted it with kids and kids like it

00:36:32.070 --> 00:36:37.670
just so much and it's become something it's more. So well what would become of the

00:36:37.670 --> 00:36:44.410
. Children's interests in Minecraft if it actually declined? Yeah. That's

00:36:44.420 --> 00:36:46.650
interesting I mean it is... I mean we have seen

00:36:46.660 --> 00:36:51.270
a small decline honestly and so we just
fill in with whatever the market does want

```
00:36:51.280 --> 00:36:56.070
```

like some do continually try to get marketing feedback and see what it is that kids are

00:36:56.080 --> 00:37:02.800
excited about learning and try to
teach that. You know. Minecraft

## 00:37:02.810 --> 00:37:09.810

is one mode-able game, there are others roadblocks for example. I just

00:37:09.820 --> 00:37:13.910
found out the other day about Fortnite
apparently it's was very popular at the

00:37:14.820 --> 00:37:21.350
time so Fortnite coding maybe maybe we'll start teaching. Maybe children shouldnt use Fornite yet. Maybe you're right

00:37:21.830 --> 00:37:26.960
I haven't played it yet but that's good
to know. Yes OK I mean games is the theme

00:37:26.970 --> 00:37:33.720
so maybe it doesn't have to be Minecraft, it's whatever games kids want to learn more than.

00:37:33.900 --> 00:37:35.000
I have a question about your market with chidren.

00:37:35.010 --> 00:37:42.000
I was wondering where you inspiration came from? Im wondering if it was maybe from your mother teaching you from such a young age, or....

```
00:37:42.010 --> 00:37:47.050
```

So, I am curious about why children?

00:37:52.940 --> 00:37:57.730
I think we didn't like, well clearly think it all through. You know

00:37:57.740 --> 00:38:01.950
it came down to us wanting to start computer
science education company, and then we asked whether we should we teach

00:38:01.960 --> 00:38:06.930
kids or should we teach adults because
we just started out tutoring kids and we were like well

00:38:06.940 --> 00:38:10.320
who wants to be tutored? And we realized that kids
want to be tutored, so we will tutor kids and so

00:38:10.330 --> 00:38:15.090
it was a tutoring business to start with and so then we just kind of maintained that

00:38:15.100 --> 00:38:22.060
focus on teaching teaching young people.

Until actually like early two thousand and

00:38:22.070 --> 00:38:29.040
seventeen we started. Kind of offering the free coding boot camp

00:38:29.050 --> 00:38:33.990
for adults I don't know if you are
familiar with coding camps but there are

00:38:34.100 --> 00:38:40.800
generally six to ten to twelve week programs that are like intensive coding

00:38:40.810 --> 00:38:44.670
education boot camps for adults and they're designed to help people switch careers

00:38:44.710 --> 00:38:46.080
since computer science such

00:38:46.090 --> 00:38:50.940
a hot career maybe even if you majored in philosophy for example and your ready to get

00:38:50.950 --> 00:38:52.320
out and I can't get a job as

00:38:52.330 --> 00:38:55.790
a philosopher. Well, what else can I do ? Well in twelve weeks like that maybe you have

```
00:38:55.800 --> 00:39:00.250
```

a job as a programmer so these do exist but they carry like

00:39:00.260 --> 00:39:05.590
a pretty hefty price tag and it's can be
up to you over ten thousand dollars for

00:39:05.600 --> 00:39:06.370
example if you got

00:39:06.380 --> 00:39:13.020
that to shell out. So we decided to try to just
teach that for free since and in

00:39:13.030 --> 00:39:19.420
exchange they would teach kids in our
classes as well. And that sort of morphed

00:39:19.430 --> 00:39:23.790
into what is now our general employee training program so anyone who

00:39:23.800 --> 00:39:28.590
wants to. So it's actually better than free because
now if you want to learn how to code we

00:39:28.600 --> 00:39:33.920
will pay you to teach kids in the train you over the course of many many weeks and

00:39:33.930 --> 00:39:34.430
your gain

00:39:34.480 --> 00:39:41.340
a lot of those skills as well.
So. With. Computer programming

00:39:41.350 --> 00:39:48.240
not being super popular How do you market
ThoughStem to get parents to get parents involved so that they

00:39:48.250 --> 00:39:53.350
want their kids to get a background in coding? You know we're

00:39:53.360 --> 00:39:54.980
a little lucky in that there's there's

00:39:54.990 --> 00:40:01.850
a big nationwide push to have people learn
to code so even

00:40:01.860 --> 00:40:05.290
though it's not like taught in
schools there are organizations that are

00:40:05.300 --> 00:40:10.510
lobbying for it saying it needs to be, code.org
for example is one of the top kind of

00:40:11.400 --> 00:40:16.750
advocating organizations for cutting
education and so. Parents know about it like

00:40:16.760 --> 00:40:19.690
Well most don't have to convince people
that coding is the future because they've

00:40:19.700 --> 00:40:25.090
heard of enough from other people. We're
lucky in that regard. And really we have a big

00:40:25.100 --> 00:40:30.090
enough existing customer base in that we dont have to sell to people why coding is

00:40:30.100 --> 00:40:36.780
important. So are there other competitors
doing kind of the same thing are you guys

00:40:36.830 --> 00:40:43.370
are doing?.No no I mean definitely
their competitors. Okay so what

00:40:43.600 --> 00:40:50.270
differentiates your company from theirs?
It's hard to

00:40:50.280 --> 00:40:54.070
know for sure like I have definitely research competitors but it's hard

00:40:54.080 --> 00:40:57.510
to understand the inside of their
organization, like know exactly what's going on

00:40:57.690 --> 00:41:02.230
but from the product side, I think that our classes are more fun sort of more tightly run.

00:41:02.240 --> 00:41:07.730
So do you use a game type of strategy? Not that I know of, plus there no

00:41:07.740 --> 00:41:10.690
reason that they couldn't. So you know it's

00:41:10.700 --> 00:41:14.900
a secret Yeah but I think that my philosophy is don't you shouldn't just have one

00:41:14.910 --> 00:41:18.260
secret so there's not just like one
secret sauce we have like we have

00:41:18.270 --> 00:41:21.660
a lot of little things that add up to what I think is really strong progam

00:41:21.670 --> 00:41:26.710
Okay, so there is no secret sauce to ThoughStem then?

00:41:26.720 --> 00:41:31.530
No not really, I mean i feel like we have a really good employee training program, like train people really well and so

```
00:41:31.930 --> 00:41:35.440
```

when the kids get into class they connect
with their teacher and their teacher seems knowlegeable

00:41:35.450 --> 00:41:39.250
so they're also immersed in
this like kind of game five curriculum and

00:41:39.260 --> 00:41:40.230
they're also coding

00:41:40.240 --> 00:41:44.800
a game that they are excited about just
some examples so they all kind of come

00:41:44.810 --> 00:41:51.180
together to make something that I believe
like cohesive and I would like to say

00:41:51.190 --> 00:41:57.940
better than our competitors but.
Well OK so maybe for the final question

00:41:58.080 --> 00:42:01.330
so Since you mentioned earlier that you arent money driven

00:42:01.340 --> 00:42:08.090
do you feel that that influence your business, and what i would call a Social Business?

00:42:08.100 --> 00:42:13.350
so I'm curious that not being money driven really helps

00:42:13.350 --> 00:42:18.350
you being socially driven? So I am wondering what that process not being

00:42:18.360 --> 00:42:25.250
a for-profit business looks like? Yeah
I mean I guess so, because

00:42:25.290 --> 00:42:31.160
if I were personally motivated by
getting rich I'm sure I would run it in

00:42:31.170 --> 00:42:35.080
a different way make decisions like any time ive been given

00:42:35.090 --> 00:42:38.610
a decision of like such should

I make more money or have

00:42:38.620 --> 00:42:43.930
a greater impact I'm sure I would pick
the make more money option and that over

00:42:43.940 --> 00:42:45.080
time would have created

00:42:45.090 --> 00:42:49.220
a very different business but instead would make the other decision you generally

00:42:49.430 --> 00:42:54.190
definitely try to make sure that we're
making money and staying sustainable but but

00:42:54.870 --> 00:42:58.040
given the choice generally
we take what's going to have

00:42:58.050 --> 00:43:04.280
a bigger impact what will reach more people.
You know but it's hard to know what

00:43:04.290 --> 00:43:08.560
the alternative universe where if I was
money driven what the company looks like I

00:43:08.570 --> 00:43:13.340
don't know and I'm sure it would be different. Do you think being in Saudi Arabia

00:43:13.490 --> 00:43:14.780
kind of impacted you a lot like that money driven things

00:43:14.790 --> 00:43:19.660
because I know that there is just so much ridiculous money there so kind
of maybe you've overwhelmed you as

00:43:21.070 --> 00:43:25.330
a child maybe I don't know I'm just picking up things because I'm very interested.

00:43:25.340 --> 00:43:31.460
That is an interesting hypothesis I'm not sure. I mean my parents are not super

00:43:31.500 --> 00:43:33.310
rich so I don't.. I mean you're right there's

00:43:33.320 --> 00:43:39.810
a lot of money in Saudi Arabia but I don't think I internalize that at that age. And

00:43:39.820 --> 00:43:44.390
say you know maybe I don't know you are you know I don't know or you know

00:43:44.400 --> 00:43:45.550
sometimes it's hard to like tell

00:43:45.560 --> 00:43:50.210
a story about why how you ended up the way you are and I can make guesses it's

00:43:50.220 --> 00:43:56.890
a good guess, haha i dont know. Great, well are there any other questions?

00:43:57.640 --> 00:43:58.780
nope, we are good to go. Great, well thank you so much then.

- End of Transcription -

