

## Tyler DeWitt

**David Cutler:** Thank you so much again for joining me. I really loved seeing you talk at South by Southwest EDU. You had me captivated for the entire time you were on stage.

**Tyler DeWitt:** Thank you so much. I really appreciate that.

**David:** Crowd teaching, it was a new idea to me. I'm aware of crowd-funding and crowd-sourcing, but just for my listeners out there, could you provide just a general overview of your idea of crowd teaching?

**Tyler:** Absolutely. Crowd teaching is this term that I'm using to describe what's happening with thousands and thousands of users all around the world uploading high-quality educational content to the Internet. Maybe this is written stuff, maybe it's videos, maybe it's audio in the language learning setting.

It is a wide variety of approaches. A wide variety of content. Increasingly, students who are struggling in their traditional classes are going to the Internet and they're finding this content that users have submitted, have uploaded. They're using that to help them in school, to learn on their own and all that stuff. Basically it's this content provided by a tremendously diverse crowd of individuals who act as teachers, and it's freely accessible to students around the world.

**David:** How does that differ from Khan Academy? I know we spoke about this at the conference as well, but how is this platform different from existing platforms?

**Tyler:** I'm using the phrase as crowd teaching more as a movement and less about an individual platform. I think we see a lot of crowd teaching content on YouTube right now, for example, but YouTube isn't necessarily all crowd teaching.

I think Khan Academy is a great example of crowd teaching. Sal Khan was this guy who went out there and just started making videos that were initially intended for his niece and putting them up on YouTube. Other people found them, and found them to be helpful and of high quality, and started going to these videos for help in their classes.

I think Khan Academy is a great example of the very beginnings of crowd teaching. I think though that all too often a lot of people focus on Khan Academy as the be all and end all of educational content that's out there on the Internet. Khan Academy is great, but really it's only one star in a constellation of amazing educational resources.

For every video on chemistry that Khan has made, there are literally hundreds of other chemistry videos that teachers all around the world have made. Different approaches, different learning styles, different languages. Some are audio/visual, some are visual, all sorts of approaches. Khan Academy is a good example of the very beginnings.

Crowd teaching is what we're talking about going far beyond stuff like Khan Academy to bring in this crowd of thousands and thousands of teachers like Khan, who are making amazingly high quality stuff.

**David:** In your ideal crowd teaching world, is there a way to vet, let's say, answers or questions, to make sure quality questions are being asked and quality answers are being provided?

**Tyler:** Absolutely. I think that's really where we begin to talk about the platform. We see a little bit of that on YouTube right now, where somebody can upload a video. Students can thumbs up it or thumbs down it, depending on how helpful they find it. They can leave comments.

The best content naturally rises to the top based on this voting system. But YouTube wasn't purposely-designed as a crowd teaching platform.

An ideal crowd teaching platform would allow open access. Anybody could upload videos, upload content. Anyone could ask questions. There would be ways for members of the community, like a Wikipedia model, there would be ways for members of the community to vote stuff up, to vote stuff down, to flag stuff as incorrect or incomplete.

There would be meaningful mechanisms of feedback so that the best content would rise to the top. There would be a really great conversation between people who were asking questions, people who were answering questions, people who are making content, and all that stuff.

**David:** A live interface going on between people that are asking questions and providing answers?

**Tyler:** That would be awesome. I think crowd teaching platforms could go in a bunch of different ways. I think we'll see the emergence of a variety of different approaches to hosting crowd teaching content.

I think a real-time question answer would be awesome. Some student has a particular question and maybe, to them, it's very clear what they need but other people might be a little bit confused.

How awesome would it be if somebody could say, "I really want to answer that question but I need a little bit more information from you. Are you talking about this or about this?"

They could refine the question. They could make it better. Then it could go up on the site and people from around the world could answer it. Yeah, definitely, a real-time back and forth would be awesome.

It would model that interaction that you have when you're working one-on-one with a tutor, when you're staying for extra help and you're working one-on-one with a teacher.

That's what I think crowd teaching really has the potential to do is to provide students with that real-time, back-and-forth, specific question-and-answer capability that they don't always have because they don't always have a teacher sitting next to them 24 hours a day.

**David:** Sure. How do you imagine crowd teaching will disrupt the future of education?

**Tyler:** That's a great question. Changing gears for a minute, I'm going to shift back. I'm going to pull it back.

**David:** That's perfect.

**Tyler:** I see a lot of elements of the educational system not working so well right now. Because we don't view students as consumers or from a more techie standpoint. We don't view them as end users.

There are professors, there are teachers, there are courses, there are textbooks, and very few of them are really chosen because they are excellent at helping kids learn.

I used to teach high school. I gave this TED talk about why textbooks are so awful.

A standard high school biology textbook, I don't know a single 14-year-old who can read that and learn anything from it. But textbooks that completely confuse students are still get published every single year.

The student is not seen at the end user. The student is not the consumer.

It would be very different if, at the beginning of the year, students came into the classroom and they had 12 different textbooks on the table and the teacher said, "Read through each one of these and whichever one you like best, whichever one you think you could learn from best, that's the one that the school will then buy for you."

If that's how textbooks were selected, we would get textbooks that students could actually learn from. The system is constructed in a way so the incentives are given to textbook companies that can schmooze the buyers for states and so forth.

You have professional buyers who are deciding what textbook to be used. It's not the 14-year-olds who are using them.

It's often the same with professors too. In many colleges and universities, I know there are a lot of dedicated professors, but there are also a lot of professors who openly talk about their disdain for having to teach.

They say, "I hate having to teach but I have to do it because my primarily research-focused job requires me to put in some time in front of these students. I hate it but I have to do it."

What a surprise that those teachers who hate teaching tend to be not very good teachers. But again, they're given tenure and they're hired at universities and nobody's paying attention to the needs of the student.

Why are we having these people teach students who aren't very good at it and who don't like it very much? I think crowd teaching is remarkable because we have such a wide diversity of contributors.

Hopefully, that will build platforms that can allow the best content to rise to the top. That it will really turn our attention to good teaching. We can have an amazing biology teacher from New Zealand who's just a brilliant teacher, and students all over the world vote that teacher's content up, and up, and up.

Suddenly, this teacher is given tremendous recognition all around the world because they're making such good content. I think it's going to begin to break this monopoly that schools and educational institutions have had on providing access to education and not really taking into account the needs of the students.

No longer will a student have to suffer through awful textbooks that weren't written for them because they'll be able to go to the Internet and choose content that meets their needs.

No longer will they necessarily have to suffer through bad classes with teachers who are not as dedicated that they should be to teaching because when they can go on the Internet and access really top notch educational material, I think that's going to cause a lot of people in the system to question the way things have already been done.

**David:** For free.

**Tyler:** The way things have always been done. For free, exactly. Putting the student back in the driver's seat as the consumer, as the end user. I think that is going to be tremendously, tremendously powerful. I think it's going to have far-reaching and disruptive effects on education.

**David:** What about self-directed learning? I'm curious as to your thoughts on that. How will this affect a student's desire to pursue his or her own passions, rather than have something prescribed to them in a formal curriculum?

**Tyler:** I think that's an awesome example. I think it's another good example of how we're not looking at students as consumers. If a student wants to learn electronics, for example, they tend to have to sit through a class on electronics at some college that is designed without really the end user in mind.

That some students will want to be taking it because they'll want to learn how to build electronic products on their own, do tinkering, DIY, hacker stuff. Other people will want to become electrical engineers. Other people will be computer scientists and just have to take it because they have to. Some people will be physics majors.

Really, each one of those students has very unique needs. Ideally, they would all take a very, very different electronics curriculum.

I think that it's hard for a self-directed learner, who has a very specific learning goal in mind, to jump into a traditional class -- be it on the Internet or in person; a live class, not a MOOC or something -- just because chances are that that class was not designed with them in mind. It was probably not designed with their needs in mind.

Crowd teaching I think will be awesome. Because that person who wants to learn electronics because they want to be a DIY hacker, they want to build stuff, they don't care about doing all these complex math and algorithms and stuff. They just want to know what they need to know.

Crowd teaching having this wide variety and diversity of educational material will allow self-directed learners to find the information that they want, that suits their needs as learners, and not have to sit through this "one size fits all" but ultimately "one size fits nobody" approach.

**David:** How do you foresee the changing role of "teacher," then? Will that become more of a coach or mentor? Will there still be a need for a traditional physical place for a school?

**Tyler:** Absolutely. I used to teach high school for many years, and I think that nothing, nothing, nothing can replace a dedicated, passionate teacher. Really.

I think, when I was a teacher, I was often frustrated that I didn't have the time I wanted to spend with my students, because I had to spend so much time remedying and making up for the fact that so many of the resources were terrible.

I wanted to spend more time in my class, engaging students, challenging them with hands-on lab activities, group problem-solving, that kind of stuff.

But I couldn't because they couldn't understand the textbook. So they'd go home and not be able to read or understand this resource, and then they'd come to class. I'd have to spend all the time translating for them what Pearson and Houghton Mifflin couldn't write in a way that a 14-year-old would understand.

**David:** I heard your talk about viruses. I love that.

**Tyler:** Right, absolutely. I'm no brilliant science communicator. You talk to anybody who teaches 14 year olds, and they will tell you, "Not a single student can understand the textbook," particularly in science, math, engineering and technology, the STEM fields.

Teachers are in this terrible situation of having to spend so much of their time in class just relaying the content that kids can't learn otherwise. I think one possible thing that crowd teaching can do is provide this diversity of resources so every student can get this foundational content in a form and in a teaching style that makes sense to them, that meets their needs as learners.

Then when they come together in a class they will have understood that foundational information. Then the teacher can take it from there. Yeah, I do think the teacher will evolve to be more of a guide role, but I think that's kind of what most teachers want to be doing.

I don't think most teachers want to be just sitting, regurgitating information that the students couldn't learn from the textbook. I think they want to be more. I certainly did when I was in a classroom. I want to be more guides and helping students find the

learning resources that can help them, and then bring them together to take the information further.

**David:** The thing that I'm trying to work on now, and I'm wondering if I could just pick your brain for a moment, is trying to get the mentality of schools, public, private, charter, all schools to move more toward that kind of dynamic, the self-directed, crowd teaching dynamic.

I'm wondering, what are some impediments that you see, and how can we overcome them to get to that end goal, to get to that ideal end, whatever form that may come in?

**Tyler:** It might sound trivial, but assuming that students and schools have access to high speed Internet -- which not all of them do, but that is changing. Right now, a number of crowd teaching platforms are being developed, but I think by far the most common one is YouTube.

Students turn to YouTube for its tremendous resource of educational materials, and in something like 90 percent of schools, YouTube is locked because administrators don't want students going on, watching cat videos and Jackass videos and stuff, and I can kind of understand that.

But there is so much high quality educational content on YouTube that students and teachers who don't have access to that are at a real disadvantage. So getting YouTube unblocked in 90 percent or however many schools it is in the country, is a tremendously important first step.

I think another important first step, and this falls right in line with the idea of effective crowd teaching platforms, is the development of sites and platforms that make it easy for students and teachers to find the educational information that they want.

YouTube is great. It's got a lot of stuff out there, but for students and teachers it can be really hard to find the best content, a really great chemistry video. To some degree the best content rises to the top, but not exclusively. There are a lot of cat videos still mixed in there with the chemistry stuff.

Teachers come to me and they're like, "I really want to do this. I really want to have my students consuming crowd teaching content, but how am I going to find it? What's a reliable way that I can go on the web and find it?"

I have to say that it's not really there, that a clear platform that allows students and teachers to reliably find content that meets their needs is not there yet. Once we get that, I think we're going to see just exponential growth in this content.

**David:** I know that you're involved with Socratic, and I was wondering if you could talk a bit about how that got off the ground, and how that can help fill that void of a quality crowd teaching portal?

**Tyler:** Absolutely. Yeah, I've been involved with Socratic from the start. We have a great team there, with really complementary skills -- engineering, design, product,

community. I like to think I bring some knowledge of teaching, and effective academic communication.

We're building Socratic to be a resource that students can go to when they have questions. They can go to Socratic. The Socratic community, large community of users, will provide answers that teach how to solve these problems.

Right now, when a student has a very specific question like, "What's the chemical formula for calcium chloride?" there's not really anywhere that they can go to get the answer.

They'll type it in Google. They might get some PDFs from college courses or PowerPoints, or sometimes Yahoo Answers, which was a crowd teaching platform, in a way, but it tends to not to be particularly reliable.

We want them to be able to type in a specific question, go to Socratic, and find not just the answer, not just it's  $\text{CaCl}_2$ , but a community-written and community-curated response that teaches to how to actually solve that. That's actually teaching, that's actually going to walk you through the steps of solving that the way a tutor or a teacher one-on-one would work.

Basically it's all about students being able to ask questions and the community of users giving answers that teach them how to solve those questions.

**David:** Do you think there is a gap, though, between teachers that know how to use technology to be able to engage in crowd teaching and those that don't? Is that a big problem?

**Tyler:** I definitely do. I do think there is a divide, in terms of largely teachers who grew up with technology and those who didn't.

One thing that I think is great about crowd teaching, though, is that it doesn't even necessarily require the teacher to be directing students to these resources. As I said, students have a question in chemistry or something and they go right to Google, and type something in.

Our hope, this is speaking from my standpoint at Socratic, but our hope is students will go right to Socratic because they've learned that it's a reliable resource that will help them answer their questions.

That it's not like something that has to be formally adopted in a classroom setting, by teachers, telling their kids to go the site and so forth. So many students are turning to the Internet for help and not even being directed to do so by their teachers.

We want Socratic to be the site that you go to for help in any subject, at any grade level, in any language.

