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Changing the Economics of Education

John Hennessy and Salman Khan on how technology can make the college numbers add up

Is there anything to be done about the rising price of higher education? That was the question posed to John Hennessy, president of Stanford University, and Salman Khan, founder of Khan Academy, a nonprofit online-learning organization. They sat down with The Wall Street Journal's Walt Mossberg to discuss how technology might be part of the solution.

Here are edited excerpts of their conversation.

Cost Curve

MR. MOSSBERG: *Is it either moral or sustainable for elite colleges and universities to be charging what is approaching \$60,000 a year to go to college?*

MR. HENNESSY: I think the real question is whether or not what we're charging is a worthwhile investment for the American public and for families. That's the key question. The elites have the advantage in that they have been able to significantly subsidize what they charge with financial aid. It's a really interesting business we're in. First we charge less than it costs us to provide an education, because we subsidize everybody to some extent. And then if you can't afford it, we give you a discount.

MR. MOSSBERG: *You have a lot of money at Stanford. I've been, until recently, a trustee of Brandeis University. It's a very good university. It charges about what you do. But it doesn't have your money, and there are a lot of colleges like that.*

MR. HENNESSY: Agreed, and if you look at the vast majority of colleges in the U.S., there are way too many that are [dependent on tuition to fund their budgets]. That is not sustainable. We have to do something to bend the cost curve, and this is where technology comes in.

MR. KHAN: On the sustainability question, I agree. I think the elites will probably do just fine, but for the bulk of universities, nothing can grow 5% faster than inflation forever. It will just take over the world, and that's what's happening now.

There is a fundamental disconnect happening between the providers of education and the consumers of education. If you ask universities what they are charging the \$60,000 for, they'll say, "Look at our research facilities. Look at our faculty. Look at the labs and everything else." And then if you ask the parents and the students why they are taking on \$60,000 of debt, they'll say, "Well, I need the credential. I need a job."

So one party thinks they're selling a very kind of an enriching experience, and the other one thinks that they're buying a credential. And if you ask the universities what percentages of your costs are "credentialing," they say oh, maybe 5% to 10%. And so I think there's an opportunity if we could decouple those things—if the credentialing part could happen for significantly less.

MR. MOSSBERG: *What do you mean by the credentialing part?*

MR. KHAN: If you think about what education is, it's a combination. There's a learning part. You learn accounting, you learn to write better, to think, whatever. Then there is a credentialing part, where I'm going to hand you something that you can go take into the market and signal to people that you know what you're doing.

Right now they're very muddled, but this whole online debate or what's happening now is actually starting to clarify things. At Khan Academy we're 100% focused on the learning side of things. And I think it would be interesting [if credentials could be earned based on what you know and not on where you acquired that knowledge].

MR. MOSSBERG: *The highest rates of tuition increase have been at public institutions. Out-of-state students going to these public universities are paying \$25,000 to \$30,000 now?*

MR. HENNESSY: The biggest tragedy is if you pay that and don't get your degree. We need to deal with this problem. Costs are going up because educational institutions are driven by wages.

Flip Classroom

MR. MOSSBERG: *So talk about what you've been doing. What service are you offering and what's it like?*

MR. KHAN: Our mission statement is a free world-class education for anyone anywhere. We're most known for videos, but it isn't just videos. It's also interactive software, plus data feedback. Our goal is to really use data, to keep pushing the envelope of what is possible virtually.

MR. MOSSBERG: *A lot of people think of virtual education as a professor standing in front of a camera and just talking. What more do you do beyond that? Do you offer some interactivity where you have to show that you're participating?*

MR. KHAN: Most of our resources are going on the interactive side. So there's these kind of problem generators that will generate as many multiplying polynomial questions as you need until you show proficiency. It's tracking everything, it's logging everything. We can start to say proficiency isn't an A, B or C. It's, what is the probability of you being able to do this type of problem at some future date?

MR. MOSSBERG: *How about Stanford?*

MR. HENNESSY: We started with the view that the large lecture no longer works for this generation of students. So the whole flip classroom idea is something that's appealing. That simply means you do the lecture online and use the classroom to do something that's more interactive and more engaging.

We put some of this stuff online and then all of a sudden we got 100,000 students around the world signed up. We've learned a bunch of things. One of the phenomenal things we saw in our experiment was how quickly the community would answer questions when students in the class posed them. What I told my colleagues is there's a tsunami coming. I can't tell you exactly how it's going to break, but my goal is to try to surf it, not to just stand there.

MR. MOSSBERG: Are the students doing this actually going to get bachelor's degrees or master's degrees from Stanford?

MR. HENNESSY: I think you'll see a mix of things. You may see some hybrid models where students do half their course work remotely online and then are physically on a campus for a while. You may see models where a certification in a particular area, say Internet programming, is given rather than an entire degree.

One area I'm very excited about is providing opportunities for very talented high-school students to go begin work on their college curriculum. Say somebody comes and takes this course and then comes to the university. Maybe we just give them an exam and say if you pass this exam at this level you get credit for the course.

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