

Sal Khan on Civics Education, AI, and the Constitution

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[00:00:00] Jeffrey Rosen: Hello, friends. I'm Jeffrey Rosen, President and CEO of the National Constitution Center. And welcome to *We The People*, a weekly show of constitutional debate. The National Constitution Center is a nonpartisan, nonprofit chartered by Congress to increase awareness and understanding of the Constitution among the American people.

[00:00:20] Jeffrey Rosen: This is a special episode of *We The People* and I'm so excited to sit down with none other than Sal Khan, the founder of Khan Academy. The NCC and Khan Academy have started a really exciting partnership to solve the civics crisis in America by creating a Constitution 101 class for high school students. And that's just the beginning for much more.

[00:00:43] Jeffrey Rosen: Sal Khan is the founder and CEO of Khan Academy which is, of course, a nonprofit with a mission of providing a free world-class education for anyone anywhere. He's the founder of schoolhouse world, Khan Lab School and Khan World School. Sal, welcome to *We The People*.

[00:01:00] Sal Khan: Thanks for having me, Jeff.

[00:01:01] Jeffrey Rosen: So, data recently came out from the National Assessment of Educational Progress that's called The Nation's Report Card. It's part of the Education Department. And, and the results weren't good. It turns out that, uh, eighth graders scored worse on the history section this year than any years since the test was administered since '94. And civic scores dropped for the first time since it was first tested in, in 1998.

[00:01:28] Jeffrey Rosen: Sal, you and I just wrote an op-ed together where we argue that one cause of the civics crisis is political polarization. Students just don't have a model for how to disagree without being disagreeable, to, to have civil, uh, dialogue and debate about the Constitution.

[00:01:46] Jeffrey Rosen: And also because of polarization, there's little agreement about what to teach in terms of history and civics as the world is polarized between 1619 and 1776. Those were some of our initial thoughts. What, what, what are some of your further thoughts about the causes of the civics crisis that we're in?

[00:02:04] Sal Khan: Yeah. I, I think the organization is a big part of it because when people feel that if they go into a classroom and if they try to have a dialogue, they might get shut down or they might not be in line with the rest of the students in the class then they're not going to have that dialogue. And it creates a chilling effect. And it's not just the students who feel that way, it creates a chilling effect for, uh, teachers, for principals.

[00:02:31] Sal Khan: I remember ... Uh, right when all of this stuff, this is during the pandemic so everyone's tensions were high. I remember talking to some superintendents and, you know, I typically talk to superintendents about, "Hey, you know, we have some tools here at Khan Academy to help improve your math scores." You know, I, I go into it. And I can't tell you how many superintendents were telling me, "Look, this used to be my number one priority, this is now my number two priority. My number one priority is figuring out what to do with civics."

[00:02:56] Sal Khan: And you could almost hear the fear in their voice. They were just trying to get by. And when, when you create that type of fear, a lot of folks' reaction is to maybe do nothing. And you compound that with learning loss across all subjects during the pandemic. Uh, and you ... And it's not like things were great beforehand. Uh, it's, you know, even when you and I were growing up, I don't think students had enough, um, engagement with really understanding the founding principles.

[00:03:22] Sal Khan: And, and the reason why this is really worrying and this is something you and I talk a lot about is a, a, a country, its institutions, its, um, its ability to thrive is not based on its infrastructure or its material wealth. It's not based even on the words that are written in its founding documents. It's really written on what's going on in the minds of the people in that country.

[00:03:45] Sal Khan: Um, and no matter what ... You know, I just, I just interviewed, uh, a gentleman for ... uh, Ramesh, uh, for this, um, for our course. And he, you know, he talks about how the founding ... the founders of our country talked about some of the words in the Constitution. They're just parchment barriers [laughs]. They're just words.

[00:04:03] Sal Khan: And what really, what, what really affects or what happens are what, what's p-, what people's values are and what their incentives are. And unfortunately, I think we've ... the, the polarization and the chilling effect that that's had on honestly the middle 80% who doesn't want to be polarized, um, has ... is now having its, its effect on students.

[00:04:24] Jeffrey Rosen: It's so true. And, and Ra- Ramesh Ponnuru using the word parchment barriers from, from James Madison is such a good reminder of the fact that it's really civic habits of moderation and deliberation more than, uh, any particular written document that will save the republic.

[00:04:41] Jeffrey Rosen: Well, you and I both jumped right into this course. And it's so ... I, I agree with you, it's so exciting to interview the leading liberal and conservative scholars in America for this course. We have an amazing faculty. Uh, Ramesh Ponnuru, Robbie George, uh,

Judge Jeffrey Sutton on the conservative side. Uh, Jamelle Bouie and, uh, uh, Linda greenhouse and Heather Gerken from Yale Law School on, on, on the other side. It's just ... I- I'm learning so much from these interviews. And it's so exciting to hear everyone's different perspective.

[00:05:15] Jeffrey Rosen: What's your initial reaction to all the learning that you've done, uh, you know, over, over the, uh, past couple of months?

[00:05:22] Sal Khan: Yeah, you know, the first learning is it's fun to just even tell people what we're doing. And it's amazing that even though it sounds like a very reasonable thing that we're doing which is we are interviewing scholars and first-person actors on the s-, on the political stage, from both the right and the left, uh, when I talk to people, they almost feel like this is a radical action like, "Wow [laughs]."

[00:05:45] Sal Khan: And this ... And th- and that's actually working. I'm like it absolutely is working. And, you know, it actually turns out wh- when we're talking and, and like I find it ... It's very, um ... I find it very intellectually indulgent myself to be able to talk to these folks and essentially ask them whatever I wonder about, about things [laughs].

[00:06:02] Sal Khan: But what I'm finding is even they are in 80%, 90% agreement. You know, they might, they might interpret few things but they understand the other point. The really thoughtful people will understand the thoughtful people on the other side. And th- they tend to agree on some of the core principles that we're all trying to, trying to get at.

[00:06:23] Sal Khan: So I found it very refreshing. I have found it a lot less difficult to navigate than many people would have thought. I think, you, you know, the middle reasonable 90% of Americans, when they look at the content, it will excite them about civic engagement. And it will make them realize that, uh, you know, a lot of what the, uh, the, the, the algorithms that make folks want to keep clicking on social media will have you believe is not actually the reality in America. But if we're not careful, it can become the reality as, as we often see with the polarization.

[00:06:58] Jeffrey Rosen: That is so true. I'm so glad you're having the exact same reaction I am to doing these interviews, which is that on the majority of questions of what the basic principles are, folks on all sides agree. And it's so exhilarating just to ask the same questions to people with different perspectives. What are federalism, what's the essence of the ideas of the heart of the declaration and have them give v- very similar answers but from their unique perspective.

[00:07:22] Jeffrey Rosen: And just modeling that for the country, offering up these brilliant people who disagree about it so much and yet agree about the basic principles of the Constitution I think is, is such a privilege. And I'm so glad that we're doing it.

[00:07:34] Jeffrey Rosen: One question that we ask at the end of all of our interviews is why is it important for students to learn about the US Constitution? And it's very inspiring to hear people's heartfelt answers to that. And, and, and folks do have different answers ranging from,

"It's, it's a framework for, uh, agreement and disagreement," to, "It protects individual, uh, minorities against the tyranny of the majority," to, "It is the fabric that binds us together and so forth," all eloquent and, and surprising and, and, and, um, really meaningful to share.

[00:08:08] Jeffrey Rosen: What, what are, what are you, uh, struck by the answers to that question?

[00:08:12] Sal Khan: E- exactly the same, uh, I think. And, and it's all a flavor of and even for me, you know, [laughs] even going through this process, not through the process but very recently, I- I'm almost ashamed that took me so long to realize that the root of the word constitution is the word constitute [laughs]. That it really is what makes up the country.

[00:08:29] Sal Khan: And when you look at it that ... with that lens and that's what a lot of the scholars have also pointed out like how can you not learn about that? How can you live in a society and not understand the basic DNA of what makes it society? And that's the only way that the society itself is going to continue to become a more perfect union, so to speak.

[00:08:47] Sal Khan: Uh, but also, that's the only way that you can really thrive in that society is if you understand the institutions, you understand the guardrails, you understand that, uh, these, these, these rights are not just protecting things that you like but they're protecting some things that you might not like because by protecting that, it's also protecting things [laughs] that you like. And, and, um, some of the group then could eventually turn on you if you, if you become part of it.

[00:09:15] Sal Khan: Um, so yeah, it's been very refreshing to see that, uh, there's broad agreement on that question [laughs] of why it's important to learn about the Constitution.

[00:09:25] Jeffrey Rosen: So true. And I, I was also struck by the fact that I hadn't thought before these interviews about the roots of that word, uh, constitution and constitute. And one scholar pointed out it comes from the Latin con, together and statuary, uh, to, to stand. To, to stand together is to constitute. And to convene I learned is come together. Venere, come together. And that idea that a constitution is a place for us to come together and to stand together that constitutes us is, is just so true and, and so central.

[00:09:57] Sal Khan: I love it. I, I, I never thought I would love etymology this much, but I gotta say I really do. And, um, [laughs] I, I actually never fully process convene before. But I love that. And, and that, yeah, and even cons- constitute is the root of constitution and it means, yeah, con with and then I guess the same root word of statue, to stand [laughs].

[00:10:16] Jeffrey Rosen: Yes. Yes.

[00:10:17] Sal Khan: The word statute and all of that so, yeah, fascinating.

[00:10:20] Jeffrey Rosen: Totally fascinating. Um, I, I know when we, uh, began to collaborate, we were excited also about talking to immigrants about why the American dream and the, and the Constitution is important to them. And, and, and we, we still have to schedule some of those interviews. But what are you, what are you hoping along those lines?

[00:10:39] Sal Khan: Yeah, this is something I feel very strongly about coming from an immigrant family that, uh, you know, a lot of the narrative and, and some of it is justified is how we can become better as a country, where are our imperfections, etcetera. But I think folks who have not had a chance to experience the rest of the world really can't appreciate how special what we have going on here in the United States is.

[00:11:02] Sal Khan: And why ... Even people who aren't in distress, obviously if you're going through a war, you're a refugee, you're, you're an economic refugee, there's, there's reasons why you might want to pick up and go to a place where you get more opportunities. But there's a lot of folks who come from middle class, upper class families in other countries and still are willing to give up everything they know, their family, um, and give ... go 6,000 miles away, 7,000 miles away to just even have a shot, uh, in this country.

[00:11:33] Sal Khan: And they come here because, uh, there's some things that they hear about the United States from afar. And when they come here, I think more often than not, they realize that, yes, this is the most open country, this is the place where you have the most opportunity. Some of that is cultural where there's this openness, there's this entrepreneurial spirit. But a lot of it is embedded in the Declaration of Independence. It's em- embedded in, in, in the Constitution.

[00:11:57] Sal Khan: Yes, there is bigotry in this country. Yes, there is racism in this country. Um, yes, this country does have, um, some dark aspects of its past. But if you look everywhere else in the world, uh, I would argue almost any other large, diverse country has at least as many issues if not far more. So this isn't to be an apologist for America, but at least to appreciate what we have.

[00:12:24] Sal Khan: Um, you know, I, I ... I- if you live in a house and, and some, you know, it's, it's breaking down a little bit and maybe some of the, the flowers are dying [inaudible 00:12:32] house, uh, you can quickly say, "Oh, I wish I had a, a fancier house," until you realize that actually you have the best house in the neighborhood or you have the best house in the world.

[00:12:40] Sal Khan: And I think, once again, it's not just a matter of appreciation but it's ... it, it allows you to have a, a more optimistic forward attitude. And I think that's one of the reasons why oftentimes, immigrants do well in this country. Because when they come here, they're like, "Yeah, there's some issues going on here. But wow, there's so much opportunity, there's so much that I can do with this. I'm going to lean into this."

[00:13:00] Sal Khan: And I think, uh, you know, I was born in this country. Obviously, my kids were born in this country. And if you don't have that, that lens, you can take things for granted,

you can sometimes get focused too much on the negative and then they become self-fulfilling prophecies I think in, in many cases. So, I think we can really look to immigrants, people who are making this decision every day to g-, pick up, leave what they leave and they're leaving a lot behind, uh, to come to the US to, to kind of invigor our appreciation for what we have.

[00:13:26] Jeffrey Rosen: Wow. Uh, Sal, that was so inspiring. I think we should put that in the course. You just made the best case for the American dream and the immigrant experience that I can imagine. And you talk about appreciating in that more optimistic forward attitude and you're so eloquent about it. Um, and I know that when we ask other immigrants, they will be equally, uh, optimistic and eloquent because it's so heartfelt.

[00:13:49] Sal Khan: Uh, I'll, I'll add one thing and you've, you've met my wife Umaima. Um, she feels very strongly about this. She, she grew up in Pakistan until she was, uh, 12 years old. And then, uh, uh, it was her father and he's passed away and ... But it, it was his dream for like a decade to come to the US for all the reasons that I just mentioned. He eventually ... They eventually were able to, uh, immigrate here.

[00:14:11] Sal Khan: And her and they, you know, they came from a middle class, upper middle class family in Pakistan. And they ... You know, her, her background is very similar to mine. When we got here, various circumstances happened. We didn't have a lot of money. We didn't have a lot of, uh, the trappings of a middle class life.

[00:14:27] Sal Khan: But her college essay was about how Americ- ... kids who were born in this country are not grateful for what they have [laughs]. This is an amazing country. And at her 40th birthday, uh, it was a restaurant. My wife is not an extrovert. She's not someone who likes to hog the microphone. She's usually, you know, she l-, she, she, she used me as the, as the mouth of the family [laughs].

[00:14:49] Sal Khan: And she, you know, she just started talking about this about how ... on her birthday, you know, no one asked her to talk about the country but she says like people don't realize how, like what an opportunity we have in this country and how great it is. And the entire staff of the restaurant was in tears because I think it helped rem- remind them what they have, even though I'm sure we all have difficulties in our life and things that are suboptimal but we have a lot going for us as well if we're, if we're lucky enough to be here.

[00:15:16] Jeffrey Rosen: Wow. I, I love meeting Umaima. And I can just imagine how moving she would be talking about the immigrant experience. And as, as we've discussed, just a- ask a first-generation immigrant why America is special and it's easy to end up in tears.

[00:15:32] Jeffrey Rosen: We had a Constitution Day speech from Jem Spectar, the president of the University of Pittsburgh. And he had everyone in tears as well because he was so eloquent. You know, since we're still planning the final interviews, how should we go about identifying other immigrants to interview?

[00:15:51] Sal Khan: You know, I think it's not unreasonable to just go through, you know, talk to folks, say, "Hey, do you know anyone who's an immigrant [laughs] who's ... And, and, and, and, and let's talk to them because I think we'll, we'll get surprising stories." You know, I've been in, I've been in cabs. And, um, sometimes people say, "Are you the Khan Academy guy?" And, and, you know, and, and may- maybe the cab driver is a student and is talking about how they use Khan Academy.

[00:16:14] Sal Khan: But oftentimes, the conversations will go into, you know, what their old life was, what they were doing in their old country and why they've come here and they gave up a profession to now they're driving a cab but why it's worth it, why they're willing to do it for their own children. And, and so you really don't know. These, these stories can come out of really almost any context. And so I think it's just a matter of talking to folks.

[00:16:35] Sal Khan: And, you know, when I really think about it, there's not an immigrant I know that when you really ask them, you know, "What makes America special? Why did you come here?" Um, in many cases, "You seem to have had a pretty good situation back home, you know, your siblings, your parents had a pretty good situation, why did you come here," you will get a good answer.

[00:16:53] Jeffrey Rosen: I love talking to you 'cause we can brainstorm in real time and, uh, plan out this great, great collaboration. So now, I want to think about how we can bring this content to other audiences. This Constitution 101 class is going to be for high school students. Wouldn't it be exciting to distill these basic principles and great voices into a, certainly a class for middle school students and then a, a kind of an adult version for college students and adults about the essence of the American idea in preparation for America's 250. Just, just a, a dream but what do you think about that?

[00:17:34] Sal Khan: Oh, I couldn't agree more. I, I think, uh, if we, if we, if we have the resources, a little bit of a fundraising plug for us both as nonprofit [laughs], uh, yeah, we, we absolutely could create all the way from, you know, kindergarten through college and life curricula around this. And, you know, what's also exciting is not only can we create these, uh, these interviews from first-person actors and immigrants and people in, i- in, in, in media, uh, and, and create kind of a mastery-based personalized exercise progression that we're also working with.

[00:18:08] Sal Khan: But as many folks know, we're, we're at an AI inflection point, [laughs] an artificial intelligence inflection point. And we have started beta testing on artificial intelligence as part of Khan Academy. We call it Khanmigo. And we have found that it is perhaps most powerful or one of the places where it's most powerful is in, in topics of civics. Because you can debate the AI about issues of the Constitution, the Second Amendment, the First Amendment, it can take both sides.

[00:18:38] Sal Khan: We, we have simulations where you can talk to, uh, founders [laughs] of our, of our country. Uh, eventually, I hope we can, you know, we can talk to the judges who wrote, uh, major Supreme Court decisions [laughs] the AI can emulate and then answer

questions about, about why they decided to weigh one way or the other, essentially because it's able to train on the decisions.

[00:18:58] Sal Khan: Uh, so, I, I think between creating that entire progression, uh, and, and bringing it into schools, we are working closely with about a mi-, we have tens of millions of students who come every month, but about a million students formally in classrooms, in K 12, we can do more and more for them. And then I would love to figure out ways to even people to get college credit for this, ways that even employers might want to do it because I think employers themselves are worried about the inability to have civil dialogue.

[00:19:25] Sal Khan: You know, the same issue that you see in the, in the broader world where, "Oh, well, you know, maybe people are a little bit right to center and left to center, almost afraid to talk to each other for, for fear." That's bringing itself into the workplace, too, where, where people are stepping on eggshells and they're afraid of saying the wrong thing and they're not engaging. And when they do engage, it quickly gets into a very, uh, ugly polarized place.

[00:19:45] Sal Khan: So, um, I think everyone, [laughs] I think corporations would want it as part of their onboarding for like what does, what does civic dialogue look like and what's our country really stands for [laughs]?

[00:19:55] Jeffrey Rosen: So true and I love your, uh, vision which I completely share it. And, um, what, uh, what's so exciting is that we have the core curriculum, the content rooted in the Constitution and constitutional law and history that will allow us to do this from a nonpartisan perspective. Maybe I want to ask you more about AI in a second because then you, you, you and I have just begun talking about that.

[00:20:17] Jeffrey Rosen: But just one more word about what the class is for, uh, employees and for adults and, and college students might look like. Would we use the same kind of content, the same format with s-, experts going back and forth and then just devise ways for these different audiences to engage with it?

[00:20:33] Sal Khan: I, I think the content that we're making with the experts, it can ... it's useful for someone ... I, I ... You and I have found a lot of value talking to these folks. But I think the, the language that's being used and the level of ... Because they're natural conversations, they aren't these very pedantic or very intellectual conversations using all this technical language. I've, I've started showing them to my eight-year-old. And he likes them [laughs].

[00:20:56] Sal Khan: And so, um, I think the actual content is very appealing to a very broad range of folks. I think the exercises, we can obviously make the language and make the concepts a little bit simpler for the elementary school-age students. But I think what we're already ... Uh, the concepts that are part of the exercises, I think they're completely reasonable for college students and, and adults, um, as well.

[00:21:18] Sal Khan: I, I ... 'cause I think the beauty here is the, the underlying ideas are both profound but they don't have to be hidden behind a lot of technical or legalistic jargon. And I think when people have a chance to, to experience it in a conversational way which is what we are doing, um, it just resonates with them. They feel more connected about it. They feel more excited about, um, about mapping it to their own lives.

[00:21:42] Jeffrey Rosen: So true. And, uh, of course, for middle school and high schools and college students, there's the unique Khan network and also the assessment method that ensures that folks are mastering the material. What, what kind of platforms would you imagine for adult audiences?

[00:22:02] Sal Khan: I imagine pretty similar platform, uh, that they can watch videos and that can be on demand. If they just have a question about the Electoral College [laughs], they can learn a little bit about that or the First Amendment. Uh, but if they really want to review and, and make sure they understood things, as you mentioned, you know, mastery learning is just this idea that you get ... you should get a chance to practice and assess as much as necessary for you to really master the material.

[00:22:24] Sal Khan: And so, uh, in all courses and we've been doing this in conjunction with y'all, we create very deep item banks. So, someone might do a few questions. If they're still missing some concepts, they can do it again and they're not going to see ... they're unlikely to see repeat questions. And then they can do it where you're mixing concepts together and so that they can get multiple sessions for review, etcetera.

[00:22:42] Sal Khan: So I can't imagine that already being the core. Uh, but th- then on top of that, uh, you know, we're, we're starting to roll out, uh, as I already mentioned, artificial intelligence where people can really start to take it to a whole other level. One of the I thought most powerful points of feedback from a high school student when we were doing some of the early testing with the artificial intelligence, it was actually on a civics topic, it was actually on a judicial appointment and senate confirmation.

[00:23:10] Sal Khan: And this high school student, I was sitting next to her when she gave the fe- ... She, she, she opened up the AI and she says, "Well, you know, why, why is this relevant?" And then it brought up some of the recent confirmation hearings and how it's played out. And she and the AI started getting into a little bit of debate about has a confirmation ... is this the spirit of judicial confirmation that originally that the founders, uh, might have intended or that maybe were intended by some of the e- early president around, uh, senate confirmation.

[00:23:36] Sal Khan: And she kind of turns to me and she's like, "Wow, I feel so confident being able to talk to the AI. And I'm able to fine-tune my arguments and my thoughts without fear of being judged in the classroom." And that goes [laughs] right back to where we started. There's so much fear of being judged either as unintelligent or not a good argument. But oftentimes, oh, that is b-, you know, you ... By, by you saying that I'm going to label you as left or right or this or that as opposed to just someone who's trying to navigate the content.

[00:24:08] Jeffrey Rosen: Wow. All right, let's talk about AI. Uh, you and I haven't talked about it yet as part of our collaboration. I saw your inspiring TED Talk. Uh, as I mentioned, I have some more ... Uh, I have some, some skepticism, uh, co- coming to it but I'm open to, uh, learning more about it and, and want to think about how it would be used in the civics context.

[00:24:29] Jeffrey Rosen: Is, is Khan- ... If, if we did it in civics, is, is Khanmigo operating from the full AI set of data that ChatGPT would or is it a, is it, is it a closed set? Um, and do you use it sort of to pose questions rather than to answer them? How does it work?

[00:24:46] Sal Khan: Yeah. And, and, and so, what's been interesting ... If you ask me a year ago is Khan Academy going to be using AI or generative AI, I would have said, "Yeah, generative AI is interesting. I've been keeping track at the time GPT2, GPT3. It's cool but I don't think Khan Academy is going to use it." We were looking at let's call it more specialized AIs to potentially recommend students what might be a good next activity on Khan Academy for them.

[00:25:10] Sal Khan: But then last summer, uh, OpenAI reached out to us, they said, "Hey, we're about to finish our ... the first run of training our next generation model which is GPT4." This was all confidential at the time. And they said, "We think it's going to be exciting but also a little bit scary. And we think it's important to launch with social positive use cases from organizations that folks trust. And we said education and Khan Academy were the first things that we thought about."

[00:25:33] Sal Khan: And when I had access to it, those first few weekends, uh, this is, you, you know, it seems like forever ago but this is four months before ChatGPT came out, etcetera. And this is with a better version. ChatGPT is using GPT3.5. This is GPT4. I said, "Okay, now, this is a game changer." Uh, because it was, you know, when you just use it out of the box, uh, kind of a lot of folks experience with ChatGPT, it can be robotic. It, it, it makes mistakes. Hallucinations is the technical term for when it makes up facts. Uh, it can i- infamously make, uh, mistakes in math.

[00:26:09] Sal Khan: But we started to find that if we put it in the right context and we put the right guardrails around it, that you can really mitigate a lot of those things. And you could create somewhat magical experiences out of it. And so, we just kept iterating and we, we, we weren't sure exactly how aggressive we were gonna get.

[00:26:24] Sal Khan: Then ChatGPT comes out in November of 2022. And I remember Slacking Greg Brockman who's one of the, the founders of OpenAI. I said, "Hey, I thought you were gonna launch this till 2023. And we were under NDA and all this." He's like, "No, we didn't launch anything. This was just a chat interface on GPT3.5 which had already been out." But that already captured folks' imagination.

[00:26:43] Sal Khan: And I remember at the time thinking, "Oh, you know, does this steal our thunder," etcetera. And I said, "No, this is actually a really good thing because it just kind of put it out there and it let society started to ... start to wrestle with both the positives and the negatives

of it." Talk about civic discourse, [laughs] this is actually a place where we do need to have a discourse in the, in the global town hall, especially in the national town hall.

[00:27:05] Sal Khan: And, um, people saw, wow, this is powerful. It can start doing all of this but very real question is, is it gonna make students cheat? It has bias. Does it hallucinate? And that's when I talked to the Khan Academy team. I was like, "Look, we already have some really good solutions to this problem. We've already ... Uh, there's a world where we can help lead here. We can put proper guardrails on it. Um, and, and so and mitigate the risks so that we can hopefully maximize the benefit.

[00:27:28] Sal Khan: And so some of what we've done, Jeff, as you mentioned, cheating is one of the main issues. So, Khanmigo which is leveraging GPT4 which is the generation ahead of, of GPT3.5, if you ask it to tell you the answer or write an essay, it's not going to do that, it ... if, if, if you're a student. It's gonna say, "Hey, um, I'm your tutor. I'm not here to just help you cheat." Um, but ... What do you ... How do you think you should approach it? So, it actually does it in the Socratic way?

[00:27:52] Sal Khan: It- it will, it will nudge you forward, "Hey, have you thought about this? Or what does this word mean to you?" But it does what a good tutor would do. Also, all conversations are, um, logged and they're accessible by parents and teachers.

[00:28:05] Sal Khan: Also, we have a second artificial intelligence that monitors conversations. If there's ... If the conversation goes shady, for lack of a better word [laughs], um, the parents and teachers are going to be actively notified. And then the last piece is we think it's important to ... Uh, there's a digital literacy aspect to it.

[00:28:22] Sal Khan: This notion of misinformation or, um, fake news is not new to AI [laughs]. It's, it's rampant in the internet for the last 20 years and it's only gotten worse. And so even before generative AI, uh, the responsible thing to do is to educate students, all of whom have already had access to Google and Bing and everything else. Say, "Look, not everything you get on the internet [laughs] has equal, equal value." Is that from some random website or is that from the National Constitution Center?

[00:28:49] Sal Khan: You have to understand, y- you know ... You, you have to be able to judge how credible that is. I think with generative AI, uh, the good thing is it- it's not intentionally [laughs] when it, when it does make up X. It's not, it's not doing it maliciously [laughs] like it's oftentimes happening on the internet but it can happen.

[00:29:04] Sal Khan: Now, the providers like ourselves, there's a lot of things that we're doing behind the scenes to mitigate that and minimize what that is. But also our responsibility is as part of the application, we write Khanmigo sometimes makes mistakes and they can click on here's why. It's part of a digital literacy which is important to just not only responsibly use a tool like this right now, but it's an important digital literacy to have for the rest of students' lives because people are already using these tools in the workplace.

[00:29:30] Sal Khan: And we just ... And they are powerful tools but they have to know their ... what the guardrails are and how to use them responsibly.

[00:29:36] Jeffrey Rosen: Um, very interesting. Well, let's think together about how it might be useful in teaching constitutional law and civics. I ... My hope is that the students who take our classes will be familiar with the methodologies of constitutional interpretation. Uh, text, textualism, originalism, precedent, uh, tradition-based approaches, uh, pragmatism and natural law or some of the main methods and would be able to write a majority opinion and a dissent for cases ranging from the Second Amendment to, um, a- a- abortion to federal power.

[00:30:15] Jeffrey Rosen: Um, is that a realistic view? And could, uh AI help us, uh, ask students questions that would, um, help, help them learn how to do that?

[00:30:24] Sal Khan: Absolutely. I mean, this is what's exciting about it. So already on Khanmigo, we have things like a student can debate issues of the day. You know, should student debt be canceled? Should, uh, CRISPR be allowed to modify the human genome?

[00:30:37] Sal Khan: Uh, and, and the student can pick what side they, they take and the AI can take the other side and also assess the students debating. And we can apply that to constitutional issues. Uh, we already have things where you can talk to historical figures, simulations of historical figures. Uh, we are even thinking about, uh, simulations where you can talk to inanimate objects like talk to the Mississippi River [laughs] or maybe talk to the Constitution.

[00:31:01] Sal Khan: Um, so you have those types of things. But then above and beyond that, we're introducing modalities where the students can write and it, and it gives the students feedback on their thinking, on their logic, on, on their, on their, uh, storytelling, whatever it might be, where it highlights parts of it and then they can have a conversation.

[00:31:17] Sal Khan: So you can imagine doing close readings of, um, judicial decisions, uh, doing close readings of the Constitution, of other founding documents. But having a conversation about it, uh, anchored in the document itself, and that's where the AIs really thrive when it's anchored on an actual document.

[00:31:34] Sal Khan: You, you see, essentially, these, these other issues are, are much less likely to happen. Uh, but I see going even further, imagine a simulation where you argue a Supreme Court case in front of the Supreme Court, uh, where you take one of the sides. Or you have two AIs arguing the case in front of you [laughs] and then you have to write the decision. Uh, and then you get feedback on the decision.

[00:31:59] Sal Khan: This also would have seemed like science fiction a year ago. This honestly, if we, if we focus on this could, could, could be live within a few months.

[00:32:08] Jeffrey Rosen: Wow. Um, what, what are the other guardrails and structures around it? Is it, is ... Does it have access to all of ChatGPT and it's told only to ask questions or it's given

a, a, a, a structure like argue both sides and have the student write an opinion? Or how, how, how does it work?

[00:32:28] Sal Khan: Yeah. So the way these large language models work is that they're trained on, you know, as much of human [laughs] product knowledge as they can get access to. So, you know, just think of it as the internet plus every scanned in book plus the transcripts of every podcast plus who knows what else they're getting. They also, you know, the AI, uh, companies are, are paying human beings to label things and, uh, give extra context.

[00:32:49] Sal Khan: So, these large language models trained in all of that. Um, you know, the, the P and T is pre-trained in GPT, generative pre-trained, uh, model. Um, and ... Uh, or a pre-trained transformer, I should say. So it's a pre ... The P is pre-trained. The T is transformer model. But the, um ... But then they do fine-tune training. And fine-tune training is you essentially get experts to work with the model, give it, you know, "Hey, here's a, here's a prompt, what does the model come back? And is that a good response or a bad response? And here's what the expert would have responded."

[00:33:21] Sal Khan: And so, they use that for things like safety and recognizing when the model might be going into not constructive places or, or might be getting overly biased. I personally spend, um, about 20 hours fine-tuned training the GPT4 model that's out there now for everybody, um, around the tutoring use case where we gave our prompts that we were using to try to make it be a strong tutor.

[00:33:44] Sal Khan: And, uh, we were using the cases where it wasn't so strong. And I was saying, "Well, this is what I would have done [laughs]. And we do think it- it's, it's, it's made a difference there." So, between some of that fine-tuned training, uh, between, uh, what's I just called prompt engineering which, you know, we spent months, countless hours writing prompts for each of these contexts. So, it, it feels magical, it feels conversational but it also is accurate.

[00:34:09] Sal Khan: It also is appropriately modest [laughs] and, and doesn't have overconfidence if it's, if it's getting into a certain, uh, area where it might not have knowledge. Um, and also, we're doing things ... You know, math is I think the place where these large language models have historically had the most difficulty. But we, we've been doing things, and I know this might sound a little creepy, we've introduced notions of, of AI thoughts where the AI does things for its-, for itself so it can think before it speaks and then give a better response to learners.

[00:34:39] Sal Khan: So, if it's in a tutoring session with you and you ... It says, "Oh, you know, so Jeffrey, what do you think is the next step for this equation?" And you're like, "Okay, you know, I'd distribute the two and maybe you make a mistake when you do it." What the AI first does is it makes one call to itself to say, "Okay, well, what, what are all the reasonable things that a student could do at this point?" And it writes it all down. It doesn't share that with the student. It just shares it with itself.

[00:35:02] Sal Khan: And it takes that and says, "All right, now let me compare Jeffrey's response to what I think all of the reasonable things." So it's really what a real ... I think what a human d- ... That's what I do when I tutor. I first think what are all the reasonable responses here [laughs] and then I would look at what my, my student's response is.

[00:35:17] Sal Khan: But what we found when we do that, that increases the accuracy of the math dramatically, um, as it does for human beings. You'd think before you speak [laughs]. It improves what comes out of your mouth. Uh, and but also and this is what we, we alluded to, when it's anchored in the, the, the, the, the content on Khan Academy, it's even less likely to stray.

[00:35:37] Sal Khan: So, you're doing a tutoring session but it's anchored in an actual problem on Khan Academy where we've already given it the problem, the correct answer, how our experts would have approached it so that it, it, it, it's less likely to go to, to, to veer off script. Similar when you watch a video, it has the context of the video, it has the transcript. If you're reading an article. And so, this is going to apply to everything on Khan Academy when we turn the AI on for those users including this course that we're doing together.

[00:36:03] Jeffrey Rosen: All right, just a few more beats so I understand it. Um, say we're training a exercise where either, uh, the AI argues both sides have saved the Dobbs decision about whether or not Roe should be overturned and then the student writes the opinion or the student argues one side and the AI argues the other. Would, would we put in to the exercise a closed set of documents, videos, texts, the prev-, the previous cases, everything that's been said about it and then train and work with the exercise and then launch it live? Um, or does it work in some other way?

[00:36:39] Sal Khan: Yeah. And, you, you know, one thing, we, we have, um, and, you know, maybe we shouldn't but at least for the first version, we stayed away from some of the more sensitive debates like the [laughs] Dobbs decision. Um, but because of its, its pre-training, it, it has a lot of context of major decisions.

[00:36:56] Sal Khan: Now, the Dobbs decision of some of these models don't have the very most current information so it might not have that d-, ... But if you did, you know, Plessy versus Ferguson or you're to do [laughs], you know, some of these more historic ones, it, it ... And as part of this pre-training, it tends to have very good context on, on these types of things.

[00:37:13] Sal Khan: But above and beyond that, behind the scenes, the application developer, us in this case, we can feed it prompts. Um, I think one of the limitations is th- there is cost associated, there's significant computation costs with especially these more complex, uh, artificial intelligences now. And so, that's what we're trying to navigate. Uh, how do we, how do we handle that marginal cost? And it's, it's, it's related to how much information you're feeding it going in and how much information it's generating coming out.

[00:37:41] Sal Khan: And, uh, but we are behind the scenes doing exactly what you just described. We are passing it the transcripts of videos. We are passing it ... You know, we have a, um, activity which it ... this kind of acts as like a, a college career coach. And so, we are behind the scenes passing it a lot of documents on like, "Hey, here are things to look out for. Here are things to s- stay away from. Here's some good rules of thumb, some extra knowledge, extra contexts that it wouldn't have just gotten from its pre-training."

[00:38:07] Jeffrey Rosen: So interesting. Well, of course, you know, the ... At, at the NCC, our, our, our mission is to teach that when it comes to constitutional law, generally, there's no right answer. They're, they're just good in, uh, less rigorous arguments and training students and citizens to listen respectfully to, to all sides and to be enough of them ... to, to understand the methodologies well enough that they could write a really good majority opinion or a really good dissent in Dobbs based on whether they're originalists or, or living constitutionalists is a goal.

[00:38:41] Jeffrey Rosen: So, it, it does sound like you think that AI is especially good at training people to take both sides of a question.

[00:38:48] Sal Khan: Yeah. I mean, maybe it's a sad state of where we are but, um, I'm, I'm finding that Khanmigo is better at civil dialogue than, than [laughs] 95% of people, so.

[00:38:59] Jeffrey Rosen: [laughs] Um, as we expand our collaboration, what are other exercises you could see might be helpful in, in teaching people how to have civil dialogue and listen to arguments that they disagree with and, uh, disagree without being disagreeable?

[00:39:13] Sal Khan: You know, one of the things that we are exploring is not just have one-on-one interactions with the artificial intelligence but using the artificial intelligence to facilitate conversation amongst several people. So, you can imagine the notch for our future and a lot of this will be anchored probably in, you know, a lot of what we're focusing on civics is imagine ... You know, Khanmigo we're saying is a tutor for every student, it's a teaching assistant for every teacher.

[00:39:36] Sal Khan: And it's also ... And, and by the way, it can help teachers create lesson plans and connect it to the real world or things that the students care about, etcetera. But we want it to be able to ... A teacher can say, "Hey, what do you think we should cover," and they develop a lesson plan and then kind of meet. You know, maybe they say, "Hey, let's, let's put all the students into breakouts and in each breakout, we'll have two students on this side of that Supreme Court case, two students on that side of the Supreme Court case. And Khanmigo, you facilitate the conversation."

[00:39:59] Sal Khan: And, you know, based on the arguments presented, not some pre-, um, preordained bias, uh, you need to make a decision based on the arguments presented and your reading of the Constitution or a reading of the Constitution. Uh, I, I ... That's not science fiction. Uh, I think that's going to happen in the next year. We're going to be able to do this type of thing

where once again, it's not humans with AI, only it's AI helping humans interact with each other better.

[00:40:24] Sal Khan: And maybe behind the scenes, the AI can give feedback to the different actors saying, "Hey, is there another way you could frame that [laughs]?" Or, "Hey, I know you're about to say that. I see the argument you're making. But before we post that to the class channel, um, is there a way that you could frame it that's not as, um, antagonizing [laughs] to the other side?" I, I think this is, this is absolutely possible.

[00:40:48] Jeffrey Rosen: That's remarkable. Well, a key as you said is wh- what's the content that the AI is, uh, teaching? And that's why this course that we've developed together is really such a great model for teaching civics moving forward because we've been guided by a couple of basic principles.

[00:41:04] Jeffrey Rosen: First, we're going to have experts of diverse perspectives, liberals and conservatives, to present opposing points of view. Uh, second, we're going to, um, only teach constitutional issues, not political or policy issues, teaching students to separate their, their constitutional from their political conclusions. Uh, and that radical act of faith that students starting in middle school are capable of, that, um, exercises is, is really an important thing that we're offering to America.

[00:41:32] Jeffrey Rosen: And then finally, I- learning the habits of, of civil dialogue and being able to take both sides and, um, having empathy for the other point of view. So, I'm, I'm really excited and, and honored to be thinking through with you how we can expand this civics curriculum from high schools to all these other audiences. And I'm definitely sold enough by our initial, uh, conversation here. And we're just jumping into this to want to learn a, a, a whole lot more about AI and think about ways of perhaps adopting it.

[00:41:59] Sal Khan: Yeah. Well, I, I love being here. And I, I always feel a little bit smarter when I talk to you, Jeffrey. And I ... And, and, and, and you are always very, uh, kind with your words and you get ... make me more confident and make me want to learn more about the [laughs], about, about, about the Constitution. But this is a really fun, uh, you know, I, I love to nerd out in all subjects.

[00:42:17] Sal Khan: And, um, I ... This is I don't want to pick favorite subjects 'cause it's like picking a favorite child. But definitely this project we have going on together I think is both exciting for all of us. But even more importantly I think could make, could make it exciting for a lot of other folks and, and, and address a major need in society.

[00:42:33] Jeffrey Rosen: Absolutely. Um, I- I'm not allowed to have favorite amendments because I, I can't pick favorite kids either but I definitely, uh, do have a favorite subject. And that is the Constitution as you know. We're very, very excited about it at the NCC. And it's, it's so great to share that enthusiasm with you. And your, your vision for education, you're just changing the course of education in America.

[00:42:52] Jeffrey Rosen: And, and the incredible platform of, of, of students that you have built, um, it's, it's just a thrill to, to be able to reach them and to inspire them to learn about the Constitution. So, here's to all the great work we're doing. Uh, we, we have to do, uh, two together. And, and I, I want to, um, note that 2026 is the 250th anniversary of America. How exciting, how transformative it would be if together we aspire to teach these basic principles of, uh, the Constitution to, uh, s-, learners of all ages, uh, eight to 80, um, in preparation for America's 250.

[00:43:31] Sal Khan: I love that. I gotta say, you know, I was born in 1976, you know, famously a bicentennial baby and there is something strange about, you know, you learn about the bicentennial and because the year you were born. And somehow it creates a, a, a kind of connection [laughs] to, to, uh, the Declaration of Independence in a very strange way, uh, that I've always felt.

[00:43:49] Sal Khan: And, um, you know, it's fun because I can always, uh, figure out how old our, our country is by, uh, taking my age and adding, uh, uh, 200. So, um, I think it's, you know, for, for both the country's 250th and my 50th [laughs], I can't imagine nothing better than what you just described.

[00:44:05] Jeffrey Rosen: Beautiful. Well, I'll, I'll end with the words that I do with all of our scholars on our videos. And that- that's to say, Sal Khan, for all you're doing to inspire learners of all ages to learn about the Constitution, thank you so much.

[00:44:17] Sal Khan: Thanks, Jeff.

[00:44:25] Jeffrey Rosen: Today's episode was produced by Lana Ulrick, Bill Pollock and Sam Desai. Please recommend the show to friends, colleagues or anyone anywhere who's eager for a weekly dose of constitutional education and debate. Sign up for the newsletter at constitutioncenter.org/connect.

[00:44:41] Jeffrey Rosen: And always remember that the National Constitution Center is a private nonprofit. We rely on the generosity of people from across the country who are inspired by our nonpartisan mission of constitutional education and debate. And friends, what an exciting time it is for that mission. And as you heard from my conversation with Sal Khan, there's so much meaningful work that we can all do together.

[00:45:03] Jeffrey Rosen: You can support the mission by becoming a member at constitutioncenter.org/membership or give a donation of any amount. To support our work including the podcast at constitutioncenter.org/donate, \$5, \$10, any amount to signal your support of the mission and the importance of constitutional education in America.

[00:45:22] Jeffrey Rosen: On behalf of the National Constitution Center, I'm Jeffrey Rosen.