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Speaker 2: Welcome to The Window.

Nick Colangelo: Michael Crow is the president of Arizona State University, one of the largest public universities in the nation. A first-generation college student, President Crow has sought to redefine Arizona State University as a new American university. These changes are shaping the discussion about the future of higher education.

In 2016, Arizona State University was named the nation's most innovative school by U.S. News and World Report, and President Crow was identified by Time Magazine as one of the 10 best college presidents in America.

The Window is brought to you by the Belin-Blank Centre, part of the College of Education at the University of Iowa, and I'm your host, Nick Colangelo.

Michael, I want to welcome you to The Window, and I really appreciate you taking the time to have this interview.

Michael Crow: Sounds great Nick, thanks.

Nick Colangelo: I know that you are a first-generation student. You attended Iowa State University as an undergrad. Can you talk a bit about what that experience was like for you?

Michael Crow: Well going to college for me was probably in retrospect one of the most important things that I ever could have experienced because I was able for the first time in my life to have access to two things I didn't have consistent access to. One was a fantastic library, which allowed me to just have access to everything I ever wanted to read, everything I wanted to be connected to, any book that I'd ever wanted to see or maps or journals or whatever. Then the second thing was this living and breathing faculty.

I showed up and I told them I wanted to major in five things. I gave them five things I wanted to major in. They said you couldn't major in five things, but they'd help me focus on as many of them as I could, and so it was just a fantastic

learning environment, a fantastic learning experience. It was just really something.

Nick Colangelo: In that experience, Michael, did you have some mentors that really stand out for you?

Michael Crow: I had some tremendous mentors at the university. I was a track athlete on the track team, but that wasn't my primary focus. My primary focus was trying to figure out how to learn about how the world worked and so forth, so I had a guy named Don Hadwiger who was a tremendous political science professor. I had a guy named Lyle Sendlein who was a tremendous geology professor, so I was able to learn social science and physical science. Tom Wheelock from engineering. People along the way, Dan Zaffarano from physics. Bob Hanson from chemistry. I was able to work across all those subjects and all those disciplines. David Glenn-Lewin from basic ecology. These were all tremendous, tremendous people for me.

Nick Colangelo: That's great to know that many individuals had an impact on your life. I'm just wondering, that kind of experience, how does that inform you now many years later as a president of Arizona State University?

Michael Crow: It informs me a lot in the sense that I want to make certain here that our students one, come from all family backgrounds, that they have access to a dedicated faculty, that the faculty are deeply committed to teaching, that the faculty accept a wide range of intelligence types, that they are not focused on or obsessed with just one particular type of intelligence. I want to make certain that problem-based learning is fully acceptable and a part of the learning environment. All those things are part of what I learned then that inform what I do now.

Nick Colangelo: Michael, you have a great respect for the idea of a public university, and yet you also have spoken of the fact that somehow public universities today, because of their success, in some ways have lost their way, that they're more interested in attaining, having aspirations of elitism rather than serving the public and that's obviously important to you. Can you talk a bit about your vision and what you think the mission of a public university should be?

Michael Crow: It's interesting, the first college in our country was Harvard and it has grown to become one of the great universities in human history. Perhaps even the greatest, and then other private schools have emerged in the United States that have done really well, and then great public universities like Michigan or Iowa or Berkeley. Virginia, other schools that have risen up through the decades.

What's been interesting to me has been to watch them move away from a deep commitment to egalitarian access to a higher and higher and higher admission standards. That then has then narrowed the student body coming to their universities to some extent. What's happened is, I keep wondering what's the

public university for? The public university in both design and in theory and in initial practise was intended to be able to be the place where any kid from any family, from any background, could have access to a great faculty, a great learning environment, a great set of libraries or laboratories or whatever it is that they were working on or needed to work with, and so some of that has been lost as many public universities now view themselves, particular public research universities view themselves as basically the same as private universities where exclusion becomes the coin of the realm.

I'm just not a big believer in exclusion, that is being exclusive at a public university as being the way that a public university should operate, or certainly one's that scaled to serve the public more broadly.

Nick Colangelo: It's interesting, if I can follow up on that. Recently in the Wall Street Journal there was an article and a chart that showed that according to U.S. News and World Report, the leading national universities all get over 30,000 students applying, yet also the top ones all accept fewer than 7%. You made some inspiring comments about the fact that it's not who we exclude, but who we include and who we teach.

In terms of how you see students coming into not only Arizona State University but in the public universities of the future, can you talk a bit more about the importance of inclusion and when you say inclusion, who are you thinking about including?

Michael Crow: For me, inclusion means, and in the way that we've advanced things, it means inclusion across all socioeconomic diversity. That captures by just de facto captures ethnic diversity, and so if you have a socioeconomically diverse student body that matches the socioeconomic diversity of your state or your region, then you're going to have a diverse institution. Almost no institutions have one that matches that, and I think that should be a public responsibility of a public university.

Diversity also means no financial barrier, so you're not going to be excluded from the public university because of a financial barrier. Another form of diversity is intellectual diversity. It turns out, and you know this Nick, there's more than, in the Howard Gardner model, there's more than one type of intelligence. Emotional intelligence, tactile intelligence, spatial intelligence, analytical, verbal, all these different types of intelligence and so you want to make sure that you don't limit the scope of the university by saying, "Well we're only going to teach these 10 or 20 subjects," and so you have a large number of subjects at a public university to capture the breadth of talent.

One of the things that we've tried to do is tried to figure out how to build a university that is inclusive across all of those dimensions. Now that's not easy to do. One of the things that we do here at Arizona State is we believe that the great research universities, public universities, Berkeley, Michigan, places like that, were already great in 1950. They had admission standards that were highly

egalitarian, and they were already great as research universities and so we're basically operating under the assumption that if that model was good for them, then that model should be good for now, even with a much more diverse population. That's the kind of approach that we're taking to this.

Nick Colangelo: You've made statements that one of the real shameful things in our society is that students in college who are in the bottom quarter or even the bottom half socioeconomically have such low graduation rates. You take this type of student and Arizona State has been much more successful at graduating this group. How are you doing that? What do you attribute that to?

Michael Crow: What's interesting about that is, so you had mentioned that article earlier, the Wall Street Journal. The New York Times wrote this article and they were talking about how we needed to get more of the really bright kids, that would mean kids with A+ averages coming out of high school, into public universities because there were no more seats for them in the private universities. Then the guy puts up this list, the author, David Leonhardt, puts up this list of what he calls the great universities, and he bases it on their graduation rate, which I think he set the target at 75% by six years. There's slightly more than 200 universities in the country that have a 75% graduation rate in six years. It turns out they all admit only A students.

We took some exception to that in the sense that we think that the public university should be admitting all qualified students, and surely qualification for a university education is not limited to A-only students. It never was in the past, ever in the past, and so why would it be now? It only is now because it's easier to run a public university if you admit only A students. You have higher graduation rates, you don't have an overrun student body population, et cetera, et cetera.

In our particular case, we've taken this notion of admitting A and B students from every family background, every socioeconomic level imaginable, and then driving up graduation rates and retention rates for all of them, and so we've been able to do that dramatically with an 85% improvement in our 4-year graduation rate across all students, with dramatic increases in our incoming B students, including B students from lower income families, as well as A students from lower income families. What we've really done is we've tried to then scale in a sense the old model which was egalitarian access to an elite faculty, as opposed to an elite student body working with an elite faculty.

You know the numbers, or at least some of the listeners might know the numbers. Less than 10% of people in the bottom quartile of family incomes ever get a college degree and that number's basically unchanged since 1970. That therefore is a failure of public colleges and public universities to fulfil their mission.

Nick Colangelo: I think that's been one of the hallmarks of your thinking is that you don't assume the failure is with the student or the family, but it's the system of higher

education. In addition to diversity, you also have been able to change the statistics in terms of women in some fields, especially in thinking about engineering. How have you been able to at ASU change the numbers where so many areas of engineering are very small numbers of women, but you've been changing that rather dramatically.

Michael Crow: Here's a part of that story. In 2006, I came here in 2002 and 2006, my friend, now passed away, Chuck Vest, who was the National Academy of Engineering president and before that the president at MIT, he said that the National Academy of Engineering was really interested in getting more students into, more minority students and more women into engineering, and they realised that one of the constraints was the fact that mechanical engineering, civil engineering, chemical engineering, industrial engineering, electrical engineering were not exactly names that were going to attract a lot of people that weren't familiar with what those things were as disciplines.

He was arguing, and the National Academy was arguing for the emergence of what he called, and what they called grand challenge engineering schools. We said, "Well we'll take you up on that idea," so we spent two years, 2006 to 2008, re-engineering our departments. We eliminated all 11 departments in our engineering college. We recreated five grand challenge engineering schools, and ultimately a sixth school that we called the Polytechnic School. A grand challenge engineering school would be a school with a focus, like one of them is the School for Sustainability and the Built Environment Engineering. One is the School for Health Systems Engineering, Health and Bio Systems Engineering. These are schools focused on problem-basis.

Well immediately, enrollment in these schools began to go up, particularly women and minorities. Then we realised that we needed to change the way in which students were passing through these programmes, and so we created a number of active and adaptive courses in what we call the killer courses, the courses that keep people from not being an engineer. Physics, blah, blah, blah, and math, blah, blah, blah.

We did that and so long story short, 2006 to 2008 we restructured engineering. 2008 we recalibrate the way we do pedagogy and design. We go from 8,000 students, give or take, in 2008. 16,000, give or take, in 2016. In addition, 4,000 more online students in engineering with dramatic, dramatic increases in the numbers of women and the numbers of minority students in engineering by going through all of that. We believe that all of those things, those urban myths that you hear about not being able to advance STEM majors or engineering or what have you, are exactly that. They're just urban myths.

Nick Colangelo: Well it seems like you've been doing a lot of shattering of myths. One of the shatter has to do with the idea of collaboration. This seems to be a major theme in your thinking. I think you made the comment that the biggest disruption in higher ed in the future is going to be the idea of collaboration. Michael, can you talk more about the importance of collaboration and your thinking?

Michael Crow: Well collaboration on every level. I mean, collaboration within the university. We've tried to break down every disciplinary constraint that we possibly could. Incentivizing everyone to design ways around the little petty bureaucracies that they organise themselves in now, which are also known as academic departments. Within the university we focus on that, and then between colleges and universities we've built a number of alliances, a number of programmes, a number of initiatives beyond those that are just a couple of faculty members working with others in a centre, to the point where we're focusing on how to draw talent from each university. How can we collaborate with other universities to present programmes that we couldn't offer on our own? How can we leverage each other's content? How can we work together? How can we learn together? All those kinds of things, so that's where we're headed as this sort of massive, collaborative, partnering organisation that's educating a very diverse set of students across a very broad set of subjects.

Nick Colangelo: You've been able to diminish a number of departments. You've gone from in some places 30 to three and so forth. That has to be quite a challenge because you're talking about breaking down barriers that have been traditions for generations. Can you talk a bit about how you got faculty to, for lack of a better term, come along so that they could see that fewer departments is really a better way to go than to have a lot of individualised silos?

Michael Crow: The principal method that we used was one, to establish a set of aspirations for the university self. Second, within those aspirations to set out a series of design aspirations, that we wanted to be a place where disciplines were fused together. In a sense we're trying to give licence to people. We wanted to be a place where [use-inspired 00:19:36] scholarship was also respected beyond just curiosity-driven scholarship.

We put all that out, and then we worked to empower the faculty to be something other than just academic bureaucrats. We said, "If you had to start over, what would you design as your academic home?" We did away with geology as a department, astronomy as a group, astrophysics, astrobiology, and we created a new School for Earth and Space Exploration, as an example. That school then has now increased its majors by a factor of four or five, tremendously increased its research probably by a factor of six. They brought in engineers, scientists. We're going to be adding in that area of space exploration economists, historians, all kinds of people.

We've done the same thing with our School for Human Evolution and Social Change. Our School for Social Transformation, our School of Sustainability. Then all of these new schools have come together, drawing in people from multiple disciplines and then what's happened is that then they've been very heavily funded. We've been able to tremendously increase our research funding, actually approaching now a level of five on a university scale since 2003. Five-fold increase since 2003.

For us, these new ways of designing academic units has been through the empowerment of the faculty to aspire to a set of outcomes where they are in fact the intellectual architects. They're not just inheriting a certain kind of structure from the past.

Nick Colangelo: I imagine in all these changes that you've had to run into quite a few challenges, some with faculty obviously. What have been some of the main challenges that you've had to overcome, or are trying to overcome as you keep moving towards this new American university?

Michael Crow: What's interesting is that one of the main challenges that we have to overcome is the fact that we are differentiated from the institutions that most people come from. Most people become highly acculturated, and then they work to implement their previous institution's culture at this institution. We have broader, what I would call organisational ecosystem inertia that we're fighting against, and that's a little bit difficult, as you might imagine.

Nick Colangelo: Mm-hmm (affirmative).

Michael Crow: That's one thing. I think a second thing to overcome is to get people to, particularly faculty, to understand that the institution is not built for them. That the institution is built first for the students, second for the community and third for the faculty. The faculty is a means rather than an end.

Now that doesn't mean that the individual faculty member can't get what they want, can't get the research that they want to do or the facilities that they need, but it's just that the institution doesn't exist for them. It exists for the students. Now that then alters the way people think about a lot of these things, and I think in a positive way, but getting people to think that way is challenging.

Nick Colangelo: Sure, sure.

Michael Crow: A third thing that I'd put on the list of challenges is basically operating the university with ever-decreasing amounts of government support and thus then operating the university more and more like a public enterprise as opposed to a public agency. Well most public university people are acculturated to think as if they're in a public agency, and so they're waiting for the government to remedy something. They're concerned about cuts from the government, as opposed to concerned about finding more revenue to drive their institution forward.

That is often seen as, in the academic world that we lived in, Nick, is often seen as crass or corporatist or overly business focused and so it's difficult to get people to step past that and realise that we have to generate the resources for the institution to be successful also.

Nick Colangelo: Did you know that high ability students can go from high school to a major research university after only two years of high school? Our programme is the

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[Music 00:24:41]

Well you don't have to pick up more than one paper in any given day to realise that it's not just in Arizona, but all over that legislators are cutting back on funding for public universities. Where do we go from here? I want to ask you another question about faculty, a bit about what you think about in recruiting, what type of faculty members you want as well as about promotion and tenure at Arizona State University. How is it different than maybe at some other public universities?

Michael Crow: Well a couple things, and so one of the things that we look for is faculty members who are one, either willing to do their own thing and in a sense not interfere with others, that is somehow say, "Well we shouldn't have that," or "We shouldn't tenure somebody in that." Then the second thing is faculty members who are here because they want to collaborate, they want to engage. They want to be a part of a collaborating institution. We look for those two things.

In terms of tenure, it's kind of funny, there's this urban myth about tenure. I don't know what it's like at the University of Iowa, but there's this urban myth that tenure is a lifetime appointment, and I say, "Well, not exactly. It's a lifetime licence for you to pursue the ideas that you want to pursue, to pursue them in an unencumbered way on your own, driven by yourself responsibly, but it's not a licence for you to stop pursuing things or to quit working or to become a non-researcher or to become a poor teacher."

We hold people accountable here at ASU for their productive output and their contribution back to the institution and back to their students. Tenure's not a lifetime appointment. If you don't perform, then you won't be able to hold onto your appointment, whether you're tenured or not.

Nick Colangelo: Correct, I see that. One of the accomplishments that you've had as president at ASU is that you've been able to greatly increase the numbers. I mean now in terms of number of students, you're well over 80,000. Pretty phenomenal, and yet your graduation rates maintain quite high. Now for-profit universities have also been able to increase or get some pretty large numbers, but at least from my reviews their graduation rates are not nearly in the ballpark that you are. How do you see, what have you done that's so different?

Michael Crow: Well there's a lot of things to say here. For-profit universities don't have a deep commitment to the core of the institution being a group of faculty scholars. They don't have a commitment to the model of faculty members as knowledge

producers, as drivers of knowledge. That means then that the kinds of folks that they're working with are different. It's also the case that we spend nearly all of our resources that we acquire on the education of the student. We don't have a profit that we have to generate. We don't spend that much on marketing, and so those are not expenses off the top. For-profit universities have to worry about both of those things.

It doesn't mean that a for-profit university model doesn't work in some settings or in some cases, but undergraduate education is something that requires, for a 17 to a 22-year-old, or 23-year-old, something that requires the creation of a certain kind of environment.

Our graduation rate right now, four-year graduation rate, is now just under 55% for both our A and B students combined. We have 12,000 first time full-time freshmen. About half come in with A averages, about half come in with B averages across the full spectrum of family incomes. Our four-year graduation rate when I took office was around 27% or 28%, so we've both tripled the number of graduates and improved the four-year graduation rate by 85% while enhancing the quality of the degrees as proven by the market value of those degrees, by the awards going to our undergraduate students, and a number of other things.

One of the things that upsets me a little bit, not upsets me, that's the wrong word, but one of the things that I think is important to illustrate here is that, so of our 12,000 freshmen, about 6,000 come in with A averages, and they are now graduating in four years at above a 70% level. University of California's four-year graduation rate across all nine of their undergraduate campuses is less than 65%.

On the B level students that come in, about 6,000 for us, our four-year graduation rate now is north of 40% and many large public universities that admit largely B students, their four-year graduation rate is well below 20%. In fact, many substantially below 20%.

When we look at universities that admit A and B students, we've gotten our four-year graduation rate up to either the highest or one of the highest four-year rates, while enhancing quality, lowering cost, and we did all of that by empowering our faculty to rethink about what a student-centric institution is all about and then also finding ways to develop new innovations, new course materials, new ways of enhancing learning, all designed to enhance graduation rates. For us, those things have been very, very successful and very powerful.

Nick Colangelo: Mm-hmm (affirmative). You've talked several times about the importance of empowering faculty and obviously that's a mainstay I think in your success. If I was to come on your campus and go through some of the classes and just sit in a bit, what are some of the things that I may see happening in a classroom, happening with your faculty, that would say to me, "I'm at ASU and not some other place."

Michael Crow: Well I think one of the things that you would see right away is that we did away with a regular semester. We now have six academic modules, Fall A, Fall B, Spring A, Spring B, Summer A, Summer B. What we do in those, and there's others that have done this, but what we do is you can take a course over a 15-week period, you can take a course in a 7.5-week period. You can take it accelerated, not accelerated. You can take it in an adaptive learning platform where you have a computational intelligent tutor that's working with you. You can take it in an active or hybrid modality where you're working with a technology platform and the teaching assistant and the professor, so those are two other methodologies.

You would also see massive amounts of technology being applied to everything that we're doing. Lots of flipped classrooms where the lectures are pre-recorded and then the students watch the lectures before they come to class. The faculty can then get the assimilated questions from the students from the students that have watched the lectures before the class. He or she can also look at the heat trail, you know, what parts of the lecture were most interesting, not most interesting. Then interaction then in the lecture period is then around those questions or around those uncertainties.

The other thing that you can find is huge amounts of problem-based learning, team-based learning, unbelievable use in the increase of the library. 100,000 simultaneous WiFi users looking at lectures, looking at library materials, looking at personal stuff, working and collaborating among students. We have 170 educational technology partners. These are companies with little tools, collaboration tools, assembly tools, working together tools, all those kinds of things and so we've got all that going on.

Yeah, you might go into a classroom and it all looks just the same, but then you'd realise that across the 20,000 courses that we teach, there's now a high variability in the technological infrastructure around those courses and that then has given us lots of flexibility in how to make things happen.

Nick Colangelo: Michael, frankly I'm a little bit shocked that you would do away with the idea of semester because I thought that was ingrained by God in the Old Testament.

Michael Crow: Yeah, the weird thing about that, I asked anyone to tell me ... Here's how we started with this. I said, "Could anyone," as we were at faculty meetings, "Where did the 15-week thing come from?" Nobody knew. "Where did the 50-minute lecture come from?" Nobody knew. "Where did the 3-credit course come from?" Nobody knew.

Whatever this is, it's like we've inherited these things from ancient tablets and what we finally decided is that a lot of this has to do with some kind of an agrarian time clock. Ultimately what we decided is let's just have no sacred cows. Let's figure out what we need to be successful and let's advance on that.

Nick Colangelo: What do you think needs to happen or you'd like to see happen in the K-12 system so that students are better prepared to enter a university like Arizona State and be successful, because you're talking about a new way of thinking at that level, a new kind of student taking a different kind of responsibility.

Michael Crow: You know, I think one of the things that we realise is that we've been, and I know you're a dean of a very distinguished education college and that you've worked for decades and decades and so I'm not going to take anything away from everything that's been achieved in the education sector, but one thing that we haven't done is we haven't innovated enough. We haven't driven the universities to partner with the K-12 sector enough.

What we're looking to do now, we've launched three charter schools and they're doing very well. We're designing a ASU digital preparatory academy that we're going to make available to any high school that needs help with a math course or an adaptive calculus class or things they can't teach or some kids are having trouble with chemistry, or some other kids are having trouble with economics or social science or whatever. We've decided to take everything that we're doing and everything that we're learning and to partner, partner, partner in K-12.

The other thing that we've come to realise is that these technologies are so powerful and it's been unfortunate that we haven't in the past taken the time to really understand them. Well, we're taking the time now and we now think, now that we've gotten to understand these things a little bit better, is we now think that we've got a tremendous set of tools that allow us to move through the whole K through lifelong learning spectrum in a very significant way, so we think that we can, whatever people talk about in terms of lack of preparation or people that aren't ready or remedial this or remedial that, we don't even use the word remedial. We have no remedial classes of any type. What we have are intelligent tutors that help people to adjust to the classes that we're taking. We should be applying all of that in the K-12 sector.

Nick Colangelo: You've made the statement that even in today's world, that having a college degree is still probably the best indicator of social mobility. From what you've been saying and what I've been reading about your ideas is that you are determined to see to it that students at ASU or like universities, they're going to succeed. They're going to get their diploma because what you see is that is their main ticket in social mobility.

Michael Crow: Yeah, so social mobility is one of the main and principal outcomes of education. It's a critically important thing, I think, ultimately for the success of democracy. Lots of people talking about that and would agree with that. For us, that is something that we work on. Social mobility is best determined now, in fact if you take the last 100 years, you take 1,000 variables and you look at social mobility, the best predictor, you'll remember this from your data days, your ANOVA analysis of variance indicator tells you that educational attainment is the principal explanatory variable.

Nick Colangelo: It is, and I do remember that. I can see where parents of a high school student might think, if my son or daughter goes to Arizona State University, it's so large that it's probably going to be impersonal, you may just be lost in a shuffle. What would you say to parents that have that concern?

Michael Crow: You know, it doesn't really work that way. We've created hundreds of what we call micro learning environments. Each one is the size within that micro learning environment that that environment needs, and what I mean by that is, if you're studying lyric opera here in our School of Music in the Herberger Institute for Design and the Arts, it's sized for what it takes to teach opera. If you're taking biology in our School of Life Sciences as an undergraduate, we can easily handle 3,000 undergraduate majors but you live within that community. If you're in our 1,400 student Walter Cronkite School of Journalism, seems to be about the right size.

The way we deal with size is by expanding programmes, expanding degrees, expanding pathways. We don't force any programme to be any particular size. We say each unit, nursing, teachers college, whatever it is, has to optimise for success of their students so if they start seeing their graduation rate going down or the success rate going down or the employability going down for students, well then you change immediately. You work back to the point where you're maximally successful. Size doesn't really mean anything.

Nick Colangelo: Yeah. I think that's an important message for parents to hear because for so many generations I think large meant impersonal and small meant intimate and you're saying you can do a lot of the intimate learning pathways at a large university.

Michael Crow: Absolutely. What we've done is we have freed academic advisors from the routine drudgery of helping students to plot their course to certain degrees by "You have to take this in the spring semester and you have to take that two years from now." We have an intelligent tutor and online advising system that takes care of that. Then freeing up the advisors to talk about life, talk about choices, talk about careers, and so what we found is that technology has become our very powerful friend in enabling us to be a much better university and it doesn't diminish at all the intensity of personal interaction. Not one bit.

Nick Colangelo: You made the statement that universities need to keep evolving. Michael, last question. If you can think in terms of the future, the next five years, 10 years for you, where do you see your own thinking going and perhaps what the Arizona State University vision will be a few years down the road?

Michael Crow: One thing that we need to do that we haven't yet done, and that is that our intention is to perform at the level across all dimensions of all public universities that admit only A students, because we actually think that's a faulty model. We're not after that model, we're just trying to make sure that people realise that you can build a great, high achieving, unbelievably successful public university and still admit a kid who came out of high school with a 3.25 grade

point. We're going to prove that and we're going to prove that across every socioeconomic class so there is no disadvantage based on your parents' income whatsoever.

Now that means we have to design things in a certain way and then we're going to do that in an institution performing at the highest level of funded research as a proxy for the competitiveness of our faculty, so those are three things that we're yet to do.

The other thing that we think that will happen is that some of the big public research universities may look upon this as an opportunity to morph into a new model. If the research universities like University of Iowa is what I would call a wave two school, a public university established in the mid-19th century that then became a research university in the early 20th century, and so Iowa State was a wave three school. It was a land grant school formed in the mid-19th century that became a research university in the early 20th century. What we're basically suggesting is that if wave four was the American public research university, wave five might be those schools that want to do something that Arizona State has already decided to do, and that is to be a high-speed, highly adaptable, scalable, highly innovative institution engaging as many people as possible across society. That might be what we call the wave five university.

We don't know what to call it yet, so right now we're using the phrase "national service university." It doesn't diminish a wave four school or a traditional land grant in wave three or a small four-year college like Bowden College in wave one or a state college like Shippensburg State or a school like that in wave two in Pennsylvania. All of those can exist at the same time and evolve at the same time, but what we're basically suggesting for Arizona State is that, and very much moving on this path, that we are a prototype for a new type of public university.

Nick Colangelo: Michael, I want to thank you very much not only for your vision but for having tangible evidence of translating that vision into practical day-to-day work. It's been great talking to you and I wish you all the very best.

Michael Crow: Thanks Nick. Let me know if you're out here this way and I'd be happy to show you around with what we're doing.

Nick Colangelo: The Window is presented by Connie Belin and Jacqueline N. Blank International Centre for Gifted Education and Talent Development, part of the College of Education at the University of Iowa. The Belin-Blank Centre is directed by Dr. Susan Assouline. The Window is produced by David Gould and Joshua Jacobs. Music for The Window was composed and performed by Daniel [Gaglione 00:44:51] and John [Rapson. 00:44:53].

Opinions expressed by guests on The Window are their own, and not necessarily those of the Belin-Blank Centre, the College of Education, or the University of Iowa.