



Establishing trust and truth in the sciences requires collaborative, interrogative thinking.



Now in its third century, the Academy is proud to celebrate all the innovators, educators, and problem-solvers who are working together to shape the future of science.

Trust, truth, and representation

The New York Academy of Sciences

The New York Academy of Sciences is one of the oldest scientific organizations in the United States and has been a place to exchange ideas since 1817. In the 21st century, the science may have changed, but its mission remains: to drive innovative solutions to society's challenges by advancing scientific research, education, and policy. In this interview with CEO and President Nicholas Dirks, Research Outreach found out what it has been like to lead the Academy through the COVID-19 pandemic and beyond, and how that crisis has affected science communication for us all.

The whole world was taken by surprise when the COVID-19 pandemic hit. While scientists desperately investigated treatments, vaccines, and the best preventative public health policies, politicians tried to manage countries and economies that had ground to a standstill. The way that scientists, politicians, the media, and the public interacted with one another during that period has led to distrust and discontent. Can the rift between the public and experts be healed? In this thought-

provoking interview, President and CEO of The New York Academy of Sciences, Nicholas Dirks, tells *Research Outreach* why the Academy's most critical efforts are to engage young people in science, connect global scientists ahead of another world crises, and rethink communication between scientists and society.

Could you tell us about yourself and your professional academic background? For almost all my life I have been an academic. I am an historian by training,

but an anthropologist by inclination. I've taught at a number of great institutions in the United States, and I spent much of my life studying historical and ethnological questions in South Asia and South India in particular. I became the Chair of the Anthropology Department at Columbia, and then the Vice President and Dean of the Faculty of the Arts and Sciences. Just at the point that I thought of stepping back into the research world, I was invited to be the tenth Chancellor of the University of California at Berkeley.

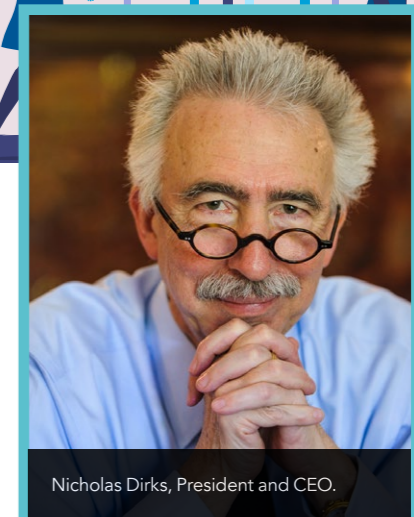
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I did that role for almost five years. As a Dean and Chancellor, I interacted a great deal with not just other humanists and social scientists, but also with natural scientists and engineers. I came to realize that interdisciplinary work needed to be expanded to the entire university and became interested in the relationship between the science fields and the arts. I'm now President and CEO of The New York Academy of Sciences, where we aim to make science more relevant and embedded in the social, cultural, economic, and political landscape.

Could you tell us about the Academy and the sort of projects you work on? The New York Academy of Sciences was founded in 1817; it's one of the US's oldest scientific academies. It was a convening space for much of the 19th and early 20th centuries, facilitating discussions about scientific discoveries. More recently, it's been a place which

has held important conferences about major diseases. The Academy also has a publication series, including the oldest scientific journal in the US. We do a great deal of work in the educational space; we work with young people principally in middle and upper schools to provide after-school or extracurricular opportunities. We assign them mentors and have a large network of scientists who volunteer their time to do this. We also administer a whole variety of awards, including the Blavatnik Award for early-career scientists.

I joined the Academy two months after the pandemic began. We could no longer bring people together, but I became interested in thinking about ways to expand our mission. The first of the new programs we've undertaken came directly out of the experience of the pandemic. The International Science Reserve uses our existing networks to connect well-



Nicholas Dirks, President and CEO.

equipped researchers and experts in the event of something like the pandemic happening again. We've been calling this 'Scientists without Borders'.

Has 21st-century science communication learnt from the past?

Maybe we've learned some things from the pandemic but the situation hasn't necessarily improved. There is this pervasive sense that scientific knowledge has a status that demands we acknowledge that it's in some way closer to the truth than anything else. This led many people, and it certainly happened in the early days of the pandemic, to simply say 'we need to follow the science.'

But, what exactly is 'the science'? Science is actually a term that refers to a method not a single set of truths. But the media wouldn't say that, and we all saw the trouble that we got into over the vaccine



Fostering an interest in science regardless of background is the responsibility of academies like the New York Academy of Sciences.

during the pandemic as well as around questions of public health. Should we or shouldn't we wear masks? Should we be six feet socially distant or eight feet? We thought that if you bring the public too much into the uncertainties that are part of the scientific process, you don't have an authoritative position from which to then say you have to wear a mask, or you have to take this vaccine, etc. It backfired in a big way. Now, experts are often seen as enemies who use expertise to hide a

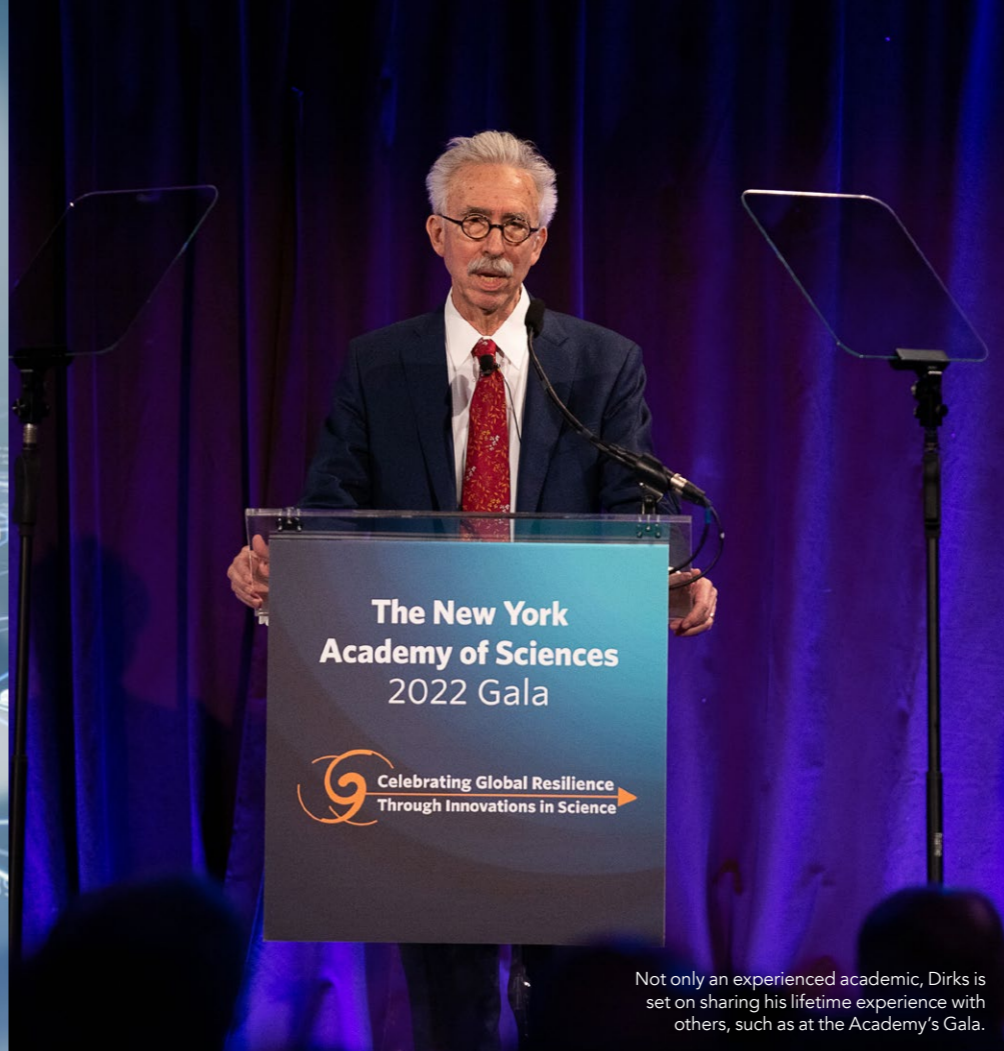
whole set of interests and intentions. We have to be much clearer about the actual development of scientific knowledge. We have to treat the public as genuine interlocutors in the work that we do.

How can institutes best avoid misrepresentation or miscommunication, while still keeping the appropriate avenues open for public involvement? Because of social media everyone can now enter the public sphere in some way.

It is important to keep up with the latest advancements in technology and promote proper, responsible practice.

We don't want to countenance forms of censorship and control over what anybody says, but we also know that there are consequences to anything that is said by an expert on any particular issue. There are times when the scientific community has to band together, investigate, and then call things out. How to balance these questions around expression, free speech, expertise, and the authoritative nature of academic knowledge is still being renegotiated, but it is absolutely necessary to take it on directly. Old, established institutions like my own have a particular responsibility, I think, to take these on.

Let's talk a bit about the values of diversity, equity and inclusion in institutional dynamics right now. Representation and diversity are particularly relevant in relation to the development of AI for example, and the complexities of who decides what needs to be regulated, what forms of governance might apply, and more are increasingly important. But we see a particular identity profile in many of the people who work in tech, both with respect to gender, race, and class position as well as industry involvement.



Not only an experienced academic, Dirks is set on sharing his lifetime experience with others, such as at the Academy's Gala.

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That perspective doesn't give me a lot of confidence. In scientific settings, the more diversity you bring to the table the better. People see things differently, and people with different backgrounds and identity formations will see things even more differently. They ask different questions and often see things that are missing. We are all recognising that the language of diversity is important for its own sake, but it's also important for science.

Can you tell us about some success stories, either in your time with The New York Academy of Sciences or in past positions?

With respect to The New York Academy, I think our greatest impact comes both from working with young people and reaching people from backgrounds who would never have had the opportunity to develop their interest and skills in science. The other success story really comes from

giving teachers new kinds of tools and providing new ways of thinking about first building a community of knowledge, and then sustaining it through a variety of things that we make readily available – either specifically in education or in conferences or publications. I was in the UK recently for our early-career awards ceremony and the three finalists were all women; the increased representation of what have historically been overlooked groups of people working in the sciences today has given me confidence and hope for the future.

With the core mission of the International Science Reserve being to get ahead of the science, do you think there is any point in calling out where the next crisis might be?

Part of the rationale for the International Science Reserve is to create a network primed to get into action as needed

and without a great deal of delay. But that's only part of what the International Science Reserve is. It's not just about tapping into the major labs and scientific institutions, but allowing other people who might get passed over or ignored to have a voice.

Beyond that, I think there is the challenge of the less obvious issues that emerge in any given crisis. Every kind of crisis has its immediate effects, and then all kinds of indirect effects. There's a social structure to a crisis; it's going to affect some people, some communities, some parts of the world more than others. This is actually about recalibrating how we think about the impact of a crisis and the obligations of scientists with respect to those crises. Scientists are not there simply to create the vaccines, but they're also there to create the infrastructure of a response more broadly.

Do you have any near-term plans or long-term hopes for the development of science and society and people and policy?

In 1959, C.P. Snow gave the Reith Lecture and called for greater 'bilingualism' between the arts and sciences; these two are very different cultures and, by implication, use very different languages. Although he called for a collapse of the two cultures, more than 60 years later they are alive and well, and it's very hard to bridge them in a meaningful way. I think we have seen lately though the critical nature of that call, since it's only with that kind of bilingualism that science is going to be able to confront the current and future challenges that we all accept are part of our world and future. I'm looking to build the Academy as a place in which even the definition of the scientist doesn't have a border.



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