

# CULTURES

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## THE ETHICS OF TRANSFORMATIVE TECHNOLOGIES

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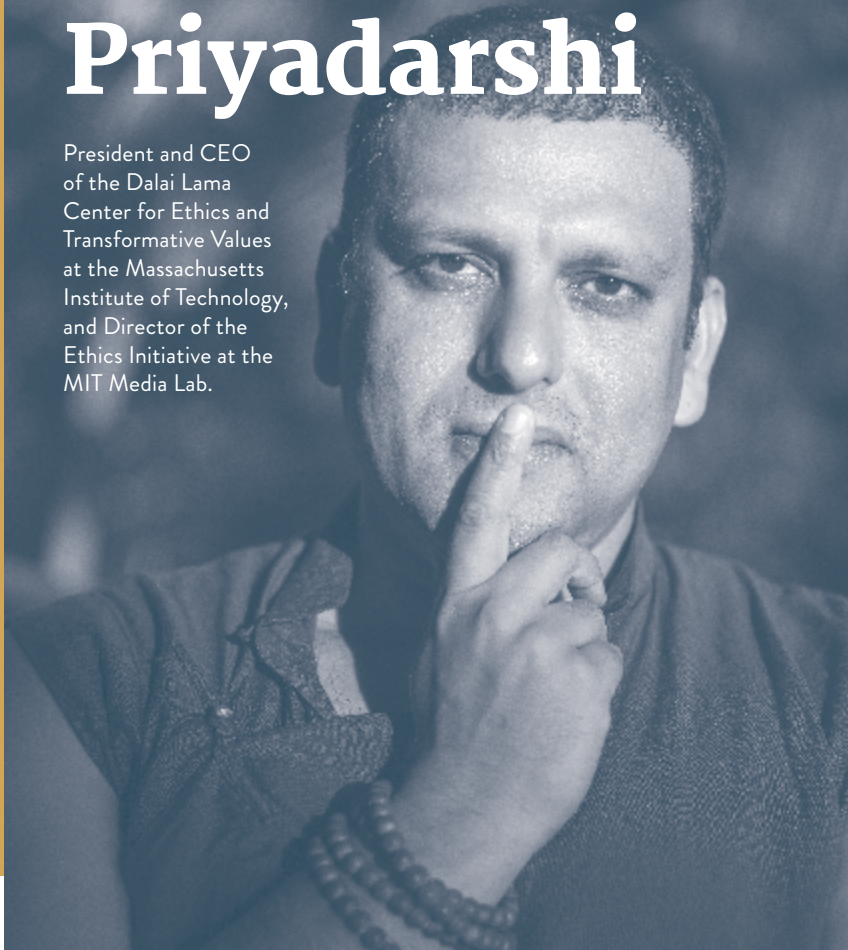
CRISPR

Artificial Intelligence

Gene Editing

# The Venerable Tenzin Priyadarshi

President and CEO of the Dalai Lama Center for Ethics and Transformative Values at the Massachusetts Institute of Technology, and Director of the Ethics Initiative at the MIT Media Lab.



**CULTURES:** Can you tell us more about your work with the Ethics and Governance of Artificial Intelligence?

**VTP:** The project came after a year of exploration and contemplation around what has been going on in various sectors pertaining to artificial intelligence (AI). We found that there were all kinds of plans being made regarding [AI] development, but nobody was systematically thinking about the challenges it might pose or the solutions it could be applied to, especially more in terms of the social good aspect. The bigger challenge was whether a government framework is something that the private sectors are willing to talk about and willing to look into. Things are happening at such an exponential rate that it turns out that most of the governmental agencies are not up to date on how to assess AI use. And so, the program was launched with those issues in mind. It involves looking into these kinds of frameworks and the discussions around them, as well as ethical morality and government structure. We also might look into AI and social good, actually promoting research in such projects to see how AI can be applied to solving large issues.

**CULTURES:** Can you talk a little about how institutions can prepare for ethical issues they may not currently be able to fathom due to the exponential growth of this technology? And do you think that government should be more involved in AI regulation?

**VTP:** Of course government should be involved. When it comes to any sort of policy design, we need an agency that can implement it and enforce those policies. I think governments are better suited for implementation and enforcement purposes than most of the private world. In regard to the ethical issues, look at the criminal justice system. We know that machine learning and AI are used for different levels of profiling in the criminal justice system. Judges are actively using it in terms of understanding who goes on trial, what the charges are, and things of that nature. The problem is that no one has questioned the historical set of data that drives these algorithms. By and large, we find, and so do my colleagues at other agencies, that these data sets already have a great number of biases around race, gender, and so on. What happens then? We are not only perpetuating the existing biases in the system, but we also are giving it credibility. That is just one example. Then of course you run into the long-term issues of AI – such as the impact it might have on civic society. Civic societies must think about this before it is too late.

**CULTURES:** Suggestions for individual scientists – what can they do to communicate their work, and what are the ethical implications of using AI?

**VTP:** Historically, scientists have agreed that their approach to science should be amoral or apolitical so that it can maintain a sense of neutrality. We have seen historically, especially after the Manhattan project, that there was a group of scientists who took certain political stances to say what their research would mean in the long-term. So, I believe that, taking AI into consideration, it is not sufficient for individual scientists and groups of scientists to simply say that their role is to promote research, but that they are not responsible for what happens

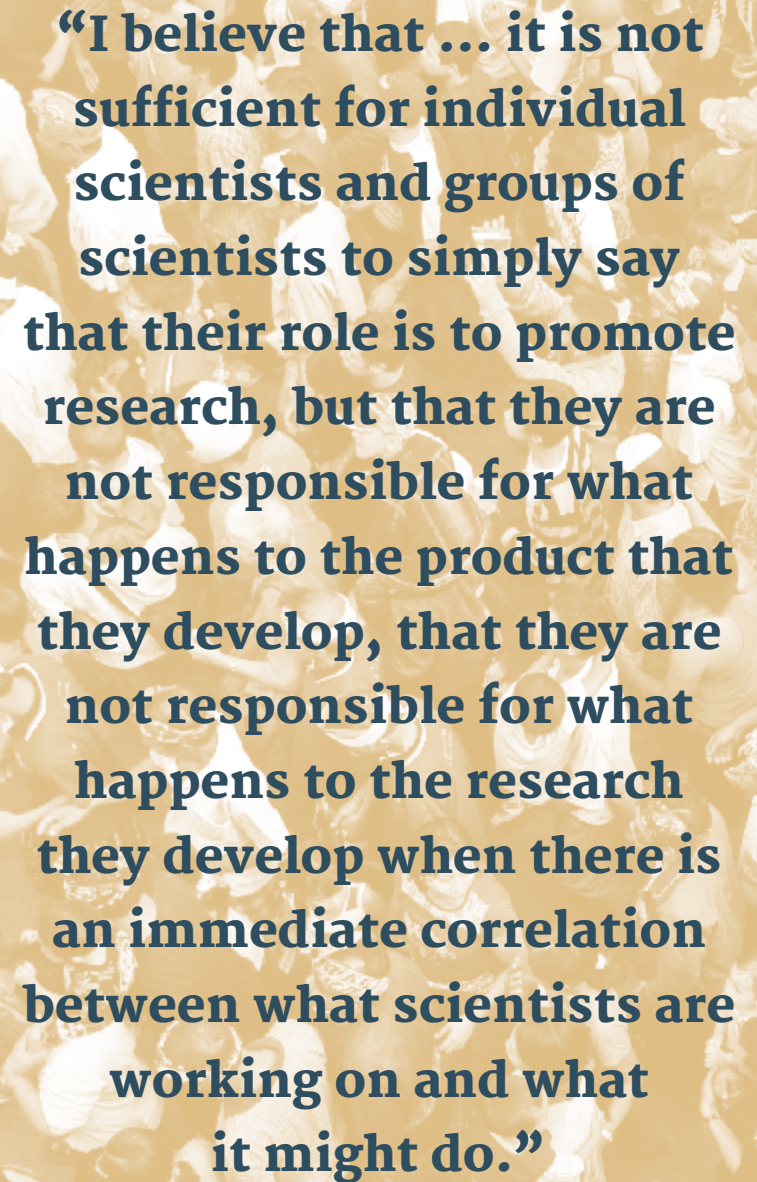
to the product that they develop, that they are not responsible for what happens to the research they develop when there is an immediate correlation between what scientists are working on and what it might do. I believe that, when it comes to individual responsibility, again, they should maintain some sort of sanctity around data sets and data value so that they know they are not letting algorithms perpetuate the ill habits of a historical system. AI is also an opportunity for self-correction and recognizing when biases exist. It often falls to the scientific team of a company, not to the marketing team, to be cautious about what traits are being made. From a civic society perspective, there has been a shift. It is fine that we are adding AI to medical systems, but are we going to be providing training to the current generation of doctors and medical professionals? Especially for doctors – how will it shift their training in medical school in terms of automation and integrating AI into an operating theater or interdisciplinary medicine? There are things – psychological or otherwise – that people need to be trained in.





**CULTURES:** AI is a growing billion dollar industry. This has an impact on the poorest nations. How do we ensure everyone rises, not just the top one percent?

**VTP:** If we look at the current norm, it would be so idealistic to say that there will be a level playing field for AI between developed and undeveloped countries. After all these years of Internet and data-driven devices, and we see this great divide in technology and access to it. I think when it comes to AI for social good, there are three areas that would be useful to mend this gap. One is around education. How do we design and leverage the capabilities of AI to create more tailored, more individualized learning systems in different societies? The second is health care and medicine. How do we create more accessibility to the treatment of complex diseases? Third is the financial system, especially for countries that historically receive aid from developed countries. It is not new that we live in a world where there are systems that are more corrupt than others. If we are able to utilize and leverage the AI system to create more transparency around how aid is being utilized, I think this will help us feed back into the policy-making system to be able to say “okay, you know, it’s working or it’s not working” and so on. But I think the issue is not just about emerging countries, I think the issue is also with the first world countries. There are already indications of fear of automation and labor displacement and job displacement. The past 50 to 60 years, our attitude has been that there will be more employment because there are people acquiring new skills sets. Companies and politicians – that is what they are selling. We can’t bring certain jobs back, but if you learn a new skill set, there will be more opportunity for you. And you know that statement has truth to some degree in regard to automation. But when it comes to AI, people forget that this is a technology that is fundamentally built to replace all other technologies and it is not useful to deny what might arrive in the long term. A bunch of companies like IBM and Microsoft are investing in AI, saying it will result in more technology. It might create certain specialized jobs for a very short period of time, but, if it is doing what it was designed to do, the idea is that it will not require humans to do all these things.



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**CULTURES:** What about AI excites you the most despite these big uncertainties?

**VTP:** I think there are a lot of wonderful things that could arise from it. We have a global population struggling to create a more egalitarian society when it comes to access to education and health care. I am hopeful that AI will be able to facilitate that. I am hopeful that AI will create more reach, more education, to help us design new learning platforms that are designed for more individual learning. Next, human beings will rethink humanity all together. After 10,000 years of living, all we have become is working to live in an environment. Our sense of purpose, our sense of identity is driven by day-to-day labor. For the past 50 years, it has stifled human creativity. People do not have free time to do things they wish to do, they do not have time to explore the depths of human relationships or the depths of Mother Nature, so I think that we are able to have these transitions. These are evolutionary transitions, and I think we will be able to rediscover humanity in a new way. ■



## Tenzin Priyadarshi

The Venerable Tenzin Priyadarshi is an innovative thinker, philosopher, educator and a polymath monk. He is Director of the Ethics Initiative at the MIT Media Lab and President & CEO of The Dalai Lama Center for Ethics and Transformative Values at the Massachusetts Institute of Technology, a center dedicated to inquiry, dialogue, and education on the ethical and humane dimensions of life. The Center is a collaborative and nonpartisan think tank, and its programs emphasize responsibility and examine meaningfulness and moral purpose between individuals, organizations, and societies. Six Nobel Peace Laureates serve as The Center's founding members and its programs run in several countries and are expanding.

Venerable Tenzin's unusual background encompasses entering a Buddhist monastery at the age of ten and receiving graduate education at Harvard University with degrees ranging from Philosophy to Physics to International Relations. He is a Tribeca Disruptive Fellow and a Fellow at the Center for Advanced Study in Behavioral Sciences at Stanford University.

Venerable Tenzin serves on the boards of number of academic, humanitarian, and religious organizations. He is the recipient of several recognitions and awards, and received Harvard's Distinguished Alumni Honors in 2013 for his visionary contributions to humanity.

