Stanford eCorner

University Collaboration and Research

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How can the academic environment begin to solve some of the largest problems on the planet? Environmental sustainability, energy use, and disease biology are just a few of the world's looming issues that require not just a single innovation for progress, but collaborative, interdisciplinarian solutions. It is the university's responsibility, says Stanford President John Hennessy, to assemble diverse teams that can address these issues and offer them the resources to explore them. It is unlikely, he says, that these large global issues will be successfully addressed by a pure entrepreneurship model.

Transcript

How do you think about innovation and entrepreneurial behavior in a big university that wants to try to address some of the biggest problems in the world. If we want to help solve issues like environmental sustainability, finding an environmentally appropriate way to generate energy for the future. If we want to try and solve the issues of stem cell and replacement biology so that we can begin to address not only childhood autoimmune diseases, but challenge the diseases which come with old age in our population. If we want to work on problems like that, those are large-scale problems. They require not just one innovation but many innovations along the way. So how can a university use its entrepreneurial spirit and its ability to do that to work on problems of that scale? Well in the end, innovation does come down to lots of small discoveries. What you have to do though is create discoveries that bring together collaborative teams, possibly from different disciplines, possibly from different parts of campus. You've also got to be prepared to realize that the final innovation will require a set of breakthroughs along the way. So you've got to be able to think differently. You've got to be able to have slightly bigger teams than you might normally have in many other innovative projects.

And you've got to be able to couple people whose backgrounds and experiences are different. Now of course we do this when we combine business and engineering for example in lots of start-ups. But imagine trying to get a start-up which before you're ready to bring the business people in you've got to bring together somebody from biochemistry together with somebody from ophthalmology, together with somebody from chemical engineering to think about a new way, for example, to design an artificial cornea. It requires a different level of setting. It requires people to cross-disciplinary boundaries and it requires the university to encourage that kind of behavior. So as we think going forward and as the university increasingly tries to bring its capability to those kinds of problems, what we have to think about is creating a different kind of entrepreneurial thinking, a different kind of innovative environment. And I think the future for great universities going forward is to bring that kind of talent and bring those kind of innovations to the world's biggest problems. Because in the end, if the universities can't work on the world's biggest problems, who will address those problems? We have to do it. It will be a challenge. It will be a different kind of challenge, but this is also a university that's learned a lot over many years and can bring itself to address new challenges.