

April 25, 2005 -- Saïd Business School Address -- Oxford University

Remarks as prepared for delivery

"International Partnerships and the Global Future of Higher Education"

Thank you all for inviting me here to Oxford. I have met with some of your distinguished faculty and leadership, and I am again amazed at the history, breadth and quality of this institution. It is a true honor and joy to be here.

I am here because I believe that in this increasingly globalized world, the international research university -- and the linkages we form between our institutions -- will in large part determine our ability to rise to meet our collective challenges, create the world's "next" economies, and foster the discoveries that will change how we all live our lives.

I will get to that in a minute -- and want to hear your questions and thoughts about how we work better towards new models of collaboration. But first I want to introduce myself and tell you a little about the University of California.

I am a physicist, born and educated in Canada, who came to the United States for a research career at Bell Labs in New Jersey.

I came to California -- to UC San Diego as a professor of physics -- when I realized that the locus of innovation in America was moving from the big industrial labs -- Bell Labs, RCA, GE, IBM, Xerox, Exxon, Kodak, and so on -- to the nation's research universities, and I wanted to move with it.

I saw California as a land of almost limitless possibility -- where all the best new ideas were coming from. And I took this job because I came to understand that without UC, California would be a very different place.

California's strength today (and the strength of any area really) continues to be in our ability to be at the forefront of emerging fields and new ways of thinking. And now that California is a leader in industries like biotechnology and information technology -- and the sixth largest economy in the world -- some in the U.S. have sat up and taken notice! UC played a key role in creating much of this.

Although we are young compared to Oxford: with ten campuses (including UCLA & Berkeley), three national labs, five medical centers, 208,000 students, and an \$18 billion budget -- we are big, and here are a few examples of our impact:

- Through breakthroughs in DNA research, UC scientists virtually created the multi-billion dollar biotech industry -- today California is a world center for the field and 1 in 4 California biotech firms was founded by UC faculty or alumni;
- UC led some of first experiments with citrus growing in California, through ground-breaking research played a formative role (with Robert Mondavi and others) in building California's wine industry, and today works in every county to keep California the #1 exporter of produce in world (1/2 of produce in U.S.);

- UCLA researchers led pioneering work on the Internet -- and many of the world's top high-tech firms like Intel were founded by UC graduates;
- UC is a leader in cancer treatment, spinal cord research and transplant surgeries, and UC doctors were among first to isolate the AIDS virus.

All of this is what I call "R, D, and D" – research, development and delivery to the broader world. And you here at Oxford are of course no strangers to this: just recently I learned that a company spun out of Oxford by four of your professors (Reox), is working on a scientific discovery involving cancer and stroke treatments.

I believe that research universities are here to help solve problems facing economy and society, through all facets of our mission (teaching, research, public service) and all of the technologies, products, medical cures and new ways of thinking we help create.

But with globalization and the spread of technology, we are now seeing -- from India to China to San Francisco to Oxford -- what *New York Times* columnist Thomas Friedman calls the connection of "all the knowledge pools in the world" -- the ability for an individual from anywhere to drive the next discoveries or movements.

In California and throughout the world, research universities have of course, played a central role in creating this new world. And I believe that our continued ability to maintain and expand that influence -- relies on how well we can facilitate the free flow of ideas between borders -- in business, academia, or society.

Our ability to meet society's collective challenges, create the world's "next" economies, and the discoveries that will change how live our lives -- is dependent on it.

Universities around the world are recognizing this growing need for more imaginative internationalization of their programs. Forming new and more effective international partnerships where are strengths lie, is vital not only for economic growth -- but to strengthen research capacity and the intellectual development of students.

A distinguishing component of the next stage of globalization is in the ability of the individual to drive the next breakthrough that will revolutionize wireless technology or the biomedical industry. Today a scientist in New Delhi can have the access and impact that one from the UK or US can. And the ability to encourage that cross-fertilization and collaboration is something that research universities – and not necessarily governments excel in.

A personal example was shared by the chancellor of our new Merced campus, who recently took a trip to India. She told me that when she was in Bangalore, she walked into companies and met people who handed her business cards saying, "Ph.D., University of California, 1982."

And when you think about it, it is amazing to consider the footprint UC has India and vice versa on the basis of that one exchange. If any of you are considering an exchange or postgraduate work at UC -- I will obviously put in my pitch and encourage you to come to California or at least to another country.

This multi-faceted impact of a research university is something you in the UK understand -- but is not always so obvious in the political climate we have back home. Since I took office, I

have spent a lot of time putting out fires on the state budget. But I also have been visiting faculty, industry leaders, etc. to understand what we are doing right/what we can do better.

And from this there are some key areas I believe we need to focus on, all of which have an international component:

- The recognition that science is interdisciplinary. Young people want to do physics on the environment, on energy, on biological systems. The future is the intersection of physics, chemistry, biology, etc. But in academia we don't always organize ourselves that way.
- Working directly with industry to create next the innovations – and to use them for the good of society and find the best ways of getting technology to the marketplace where people can use it. And if you look at economic growth – the sectors that are fueling major growth in the UK – mirror those of California: in information technology, software, electronics and biotechnology.
- The growing need for more internalization in research to best pursue the next innovations in science and other fields – and meet the rapidly changing needs of our global society. In a world where all information is mobile – and the next discovery can come from anywhere – it is important that research universities pool their knowledge and share resources to focus on their strengths.

In all of these areas -- internationalization is a primary factor. And again in all of these areas I see the UK (California's fifth largest trade partner), and world-class institutions like Oxford, as key partners.

In California we have the Cal ISI model – but there are many interdisciplinary areas where cross-collaboration can take us to the next level and allow students to make the next discoveries. Ex: International Institute for Complex Adaptive Matter (I2CAM) funded as an International Materials Research Institute by NSF in 2004 to advance international materials research and develop an internationally competitive generation of materials researchers who study emergent behavior in hard, soft, and living matter.

Although UC has a strong array of international programs on each campus, to date we have lacked a comprehensive systemwide strategy. As part of a long-range planning effort, the need for UC to develop internationally has been identified as a clear priority. Regents, faculty and staff involved with the planning process reached a consensus that internationalization is key, both to keeping UC and California competitive.

I created a new position of Director of International Strategy Development for the UC system that will be responsible for creating the first coordinated and comprehensive international strategy in UC history. Her hiring is part of the "internationalization" strategy needed to keep the university competitive in the future and to enhance its role as a driver of economic progress.

But we must do more – and that is part of the reason why I am here. I would like to hear your thoughts and ideas about ways we can build partnerships.