Chancellor’s Colloquium Distinguished Speaker Series, Volume 2

Introduction

What will the University of California look like in 2020? At UC Davis, we are all actively engaged in answering this question. And there is no better time to do so. 2012 marked the 150th anniversary of the Morrill Act, the federal law that launched the land-grant university system and carved a path to higher education for countless young people. The speakers in the 2011-2012 Chancellor’s Colloquium Distinguished Speakers’ Series called on the UC Davis community to take a fresh look at the university as an incubator of innovation and to reinvigorate its land-grant mission for the 21st century. Through discussions of the future of higher education, the role of the research university in an interconnected world, climate change science, the rewards of public service, and the challenges facing scientific research in the current economic and political climate, the speakers helped us to seed a new vision for the future of our university.

This volume brings together these inspiring and thought-provoking presentations. Cathy Davidson began the year setting a high bar and a bold tone by urging us to reimagine the university as we know it. Davidson, the Ruth F. DeVarney professor of English and John Hope Franklin Humanities Institute professor of interdisciplinary studies at Duke University, visited UC Davis as part of a book tour for Now You See It: How Technology and Brain Science Will Transform Schools and Business for the 21st Century. In a talk that invited audience participation and response, Davidson challenged us to reinvent education for the digital age. As the internet has fundamentally changed how we communicate and share knowledge, she
argued, so we must change our understanding of the skills our students will need to flourish in this new “do-it-yourself era.” Davidson envisions institutions breaking out of industrial-era models to create more collaborative, interactive, innovative classrooms that will help students prepare for the networked, distributed, always-on world of the 21st century.

Charles M. Vest, president of the U.S. National Academy of Engineering, also discussed the need to rethink the research university’s role in an interconnected world and to ensure that higher education remains accessible to all. Invoking the work of 20th-century innovator Vannevar Bush, Vest sees universities as the center of a “complex national innovation system” that must remain healthy to keep the United States competitive in the emerging global, knowledge-based economy. This innovation system, he argued, depends upon openness and collaboration. “Competition and cooperation are the yin and yang of globalization in innovation and other domains,” noted Vest. Like Davidson, Vest expressed optimism about the future of an open, networked education system and called upon the audience to “promote openness and provide leadership in openness, sharing, and creation of opportunity for individuals and economies throughout the world.”

Ralph Cicerone, president of the National Academy of Sciences and chair of the National Research Council, recalled his own research trips to UC Davis and spoke about one specific challenge to which university research has been crucial: climate change. Cicerone gave the audience an overview of the science behind climate change, outlining scientific research showing that fossil fuel usage has dramatically changed the energy balance of the Earth system in the last fifty years. Cicerone shared models showing that temperatures have been increasing and the sea level has been rising all over the world. The scientific consensus is clear, noted Cicerone: human use of fossil fuels is changing the world’s climate. Mitigating and adapting to these changes present enormous challenges to researchers, policy-makers, and citizens alike.

Turning our attention to the university as an engine for social change, Michael Dukakis, former governor of Massachusetts and 1988 Democratic presidential nominee, met with UC Davis students and faculty and encouraged young people to effect change by seeking public office. He emphasized that “there is nothing more personally fulfilling and satisfying than being in a position where you can make a difference in the lives of your fellow citizens.” Dukakis related that his own journey to public office was driven by a “profound sense of injustice.” Inspired by his parents, who emigrated from Greece, and by some of his current students, who are also children of immigrants, he reminded the audience of the importance of access to public education. Universities like UC Davis form the future leaders and public servants who will help us address national challenges such as health care.

Subra Suresh, director of the National Science Foundation (NSF), returned to the theme of innovation in the series’ final talk. Like Vest, Suresh gestured to the work of Vannevar Bush, arguing that innovation depends on basic research in science and engineering, which is best done at research universities. Suresh outlined the ways in which the NSF supports innovative research throughout the higher education system and has helped the United States to maintain its leadership position. He described an “innovation ecosystem” that includes “institutions, processes, and infrastructure that ensure and continuously maintain scientific ethics, research integrity, respect for intellectual property, and a politics-free review system.”
Suresh warned that measures will need to be taken to increase the numbers of students, particularly women, majoring in science and engineering, and closed by capturing the excitement and challenges of scientific research funded by the NSF in the new information age.

All of these speakers challenged our campus community to consider how we can adapt to the changing world and reminded us of the important role UC Davis plays in fostering innovation of all kinds, from developing future leaders, to supporting scientific research at the frontiers of knowledge, to reframing the structure of higher education itself.

Research universities face significant challenges in the current economic and political climate, but we have reason to be optimistic here at UC Davis. In 2012, we set records in federal grants despite turbulence in Washington. We saw the biggest increase in grant funding of any university. Our path-breaking research, combined with our commitment to access, make us uniquely poised to contribute to national discussions about the future of the public research university. As we set out to achieve the goals of our 2020 Initiative to build on UC Davis’ excellence, create a more diverse community of scholars, and achieve financial stability, this year’s speakers reminded us that ensuring access to higher education remains at the core of the public university’s mission.

I encourage the campus community to take an active role in imagining the future of our university, echoing the question that Cathy Davidson posed in the year’s inaugural presentation: “If not us, who? If not now, when?”