Models of the New American Research University
Delaware Will Shine Working Group Report

March 2015

A Note on Process
The Models for the New American Research University working group included 63 members and was charged with the task of reflecting on best practices and emerging opportunities for the 21st Century University and to consider new, innovative, and effective options concerning institutional organization, curriculum and delivery, and resource utilization. Four subgroups worked over a period of nine months to investigate questions concerning: 1) Academic Organization, 2) Curriculum and Delivery, 3) Infrastructure, and 4) Resource Analysis. These subgroups developed lists of questions for the campus community over the Summer of 2014, and during the Fall 2014 semester, sent targeted invitations for over 100 meetings to nearly 3000 campus members (including colleges, departments, and institutes, and faculty, staff, students, alumni, and employers), and open invitations to the entire campus to attend four town hall meetings. From these meetings and over 1000 pages of archived notes and suggestions, the working group generated 20 concept papers (http://shine.udel.edu/models-of-the-new-american-research-university/). Four consolidated concept papers (Culture & Community, Design & Learning, Diversity & Engagement, and Graduate Education & Research) were studied by the entire working group in a conference held in February 2015 to identify common themes and suggestions that cut across the efforts of the four subgroups.

This report summarizes these themes and the associated suggestions for potential action items. We are thankful to the faculty, staff, students, alumni, employers, and community members who participated in these meetings, and to the working group members who dedicated a substantial amount of their time to articulate a vision for the future of the University of Delaware.

INTRODUCTION

The landscape of higher education in the United States has changed dramatically over the past decade. Rapid technological advances, increasing financial pressures, and a highly skeptical attitude among politicians and media commentators require a fundamental reassessment of the mission of the contemporary American research university and how that mission should be pursued. The University of Delaware is in an excellent position to address this challenge. We have a supportive Board of Trustees and a positive relationship with state and local governments. We enjoy a sound financial position relative to many of our peers. We are big enough to be ambitious but small enough to be experimental. And we have faculty and staff eager to innovate and improve our institution.

The model of the "New American Research University" that UD should pursue is one of a *learner-centered* research university led by a faculty committed to innovation, regular assessment, and improvement. Our goal is that our scholarship and instructional activities not be merely relevant, but that they have a meaningful impact on our students and the world. Faculty effort, long defined in terms of teaching, research, and service, can be reframed in terms of *learning, scholarship*, and *engagement*. This change is not simply rhetorical; rather, it signals an emphatic expectation that our work will be consequential and intrinsically worthy of our best efforts.

Successfully pursuing a new vision of the American research university at UD will require engagement of our campus at all levels. The strategic planning process outlined by UDs leadership, in these initial activities and as a model intended for years to come, has engaged faculty, students, staff, and off-campus partners in meaningful ways. Our task now is to articulate UD's mission and values in clear terms; to align our budget with our goals; to communicate to faculty and staff how their efforts contribute to the mission; and to continue to instill in our students a seriousness of purpose. Success is also predicated on diversity, both in terms of who makes up our campus community and in terms of the diversity of learning experiences we offer to our learners – students, staff, faculty, professionals, and community alike. Meaningful and reciprocal engagement with off-campus partners, locally and globally, will ensure that our research and learning opportunities are responsive to the grand challenges and great debates of our time and are preparing our students to make meaningful contributions to these conversations.

COMMON THEMES

1. The UD model of the New American Research University should be one of a *learner-centered* research university that is dedicated to learning, scholarship, and engagement.

Although colleges and universities claim to be places of learning, most are structured to be places of teaching. Well accepted norms of instruction revolve around highly structured times, traditional classrooms/content/approaches, and stringent disciplinary requirements. Innovations in curriculum and delivery are often sporadic and individualistic rather than institutional and systematic, and they have often focused more on how faculty teach than on how students learn. A focus on the learner – be that learner a student, faculty member, staff member, adult, senior citizen, professional, or veteran – in the environment of a research university will enable new pedagogical methods and technologies, co-curricular activities, and engagement.

UD has a strong tradition of pedagogical innovation and attention to students. This includes a well-established undergraduate research office, a pioneering Study Abroad program, the most active Osher Lifelong Learning Institute in the country, an award-winning Associate in Arts program, and resources to promote innovate teaching, such as the Institute to Transform Undergraduate Education and the Center for Teaching and Assessment of Learning. We are in an excellent position to make an institutional commitment to pedagogical innovation and excellence that builds on our past and serves as a model in the future.

UD also has a strong tradition of outstanding and engaged research and scholarship, recognized by some of the world's most prestigious awards and resulting in transformative technologies. This includes ground-breaking scholarship in alternative energies, art conservation, catalysis, climate and climate change, material culture studies, rehabilitation science, and touch-screen technology. Delaware has been regularly ranked as one of the top three states in the nation for number of academic papers published (per dollar of academic R&D expenditures), and for academic patents (per academic doctorate holder). UD has long-standing excellence of applying this scholarship in Study Abroad programs and service learning, and has recently received the Community Engagement classification from the Carnegie Foundation for the Advancement of Teaching. We are thus particularly well positioned to integrate our scholarship and engagement in a unique learner-centered educational environment.

We envision a New American Research University with the categories of teaching, research, and service reframed to highlight *learning*, *scholarship*, and *engagement*. A conscious shift in focus to these activities will expand the campus from the classroom to the co-curricular by designing for learning in daily student life. General education becomes a framework for achieving objectives through a core curriculum. Continuing education and agricultural extension improve outreach by applying researched principles of adult learning to the design of lifelong learning environments.

In this new environment, learners play a more active role in connecting curricular and new co-curricular experiences to their learning goals and assessment, so the institution can better enable success. These students participate in living-learning communities and engage in instruction that involves a combination of flipped classrooms, hybrid courses, and online learning communities. Success in a modular curriculum could be marked by attainment of competencies – perhaps in the form of a system of badges or portfolios – rather than completion of a certain number of credits.

University infrastructure for supporting interdisciplinary scholarship in strategically targeted areas would expand the reach and impact of UD scholars. Central infrastructure to promote interdisciplinary engagement will enable activities at the local and global level and would provide opportunities for the

members of campus to work side-by-side and with external stakeholders on important societal challenges. The application of design thinking, which embodies engineering, business analysis, creative arts, and sciences, would engage the public in learning projects that are experiential and problem-based. Outreach units such as Cooperative Extension, Professional & Continuing Studies, Sea Grant Marine Advisory Service, and Service Learning provide platforms on which to develop and offer interdisciplinary programs that serve the broader Delaware community. This environment would promote a diverse set of learning experiences and opportunities that would intimately tie the learners of the UD campus to the diverse local, regional, and global communities that shape our world today and in the future.

Through some specific key strategies, the University of Delaware could institutionalize structures and practices across the campus that would promote institutional transformation aligned with our strengths articulate above and with the coming challenges facing American higher education. Potential strategies include items such as (1) developing a new framework for a coherent, integrated plan of general education for all students; (2) redefining the roles of faculty members to highlight both learning and scholarship; (3) reorganizing resources and activities to promote clear missions; (4) strengthening UD's community connections and engagement both internally and externally, and both locally and globally.

Implementation Ideas

1) Create an Experimental College to incubate innovations in pedagogy and new interdisciplinary fields of study.

2) Redesign General Education, including the development of a core curriculum.

3) Develop a Faculty Fellows program to honor and promote distinguished achievement in pedagogy.

4) Institute a year-by-year eportfolio self-assessment tool for every student (grad and undergrad) to use in developing their educational programs of study, their co-curricular activities, and their resumes. Offer thematic badges for areas of special achievement.

5) Provide resources and support to develop an institution-wide emphasis on design learning (online, hybrid, multimedia, competency-based credit).

2. UD must make holistic, sustainable, and resourced commitment to diversity at all levels on campus, and must value the inclusion of all communities and people through its engagement with partners off campus.

The *Path to Prominence* Strategic Plan declared that diversity is a core value of UD: *The University of Delaware will foster a robust educational environment in which all people are welcome and feel welcome— one that supports critical thinking, free inquiry, and respect for diverse views and values. As a community, we will embrace diversity as an integral and vital part of everyday life and a cornerstone value of our University.* We reaffirm this commitment to diversity both in terms of who we are and how we teach and learn.

Diversity is both an intellectual commitment and social responsibility. It is a condition of achieving excellence through learning, teaching, student development, institutional functioning, and engagement in local and global communities. The more our campus community resembles the world we live in, the better we will be able to engage with the world. Defined to include all aspects of human difference, diversity can also be considered in light of learning styles and learning experiences. It encompasses access and intellectual inclusion in curriculum, research, service, and holistic integration into the academic culture for all members of the university community.

In addition to these considerations around diversity, UD must also recognize that both professors and students have diverse teaching and learning styles, and it is likely that these differences are correlated with race and ethnicity, gender, age, traditional versus non-traditional student status, and nationality. When effective teaching and learning styles match, the experience facilitates engagement and subsequently improved learning outcomes. Importantly, a more diverse faculty, with more diverse teaching styles and more diverse interests and perspectives, will enhance the quality of teaching for all students.

Considering both the role that community engagement can play in increasing diversity, as well as UD's role as one of Delaware's two land-grant institutions, community engagement and outreach also remain critically important to the mission of the University of Delaware. However, twenty-first century trends of globalization, technological innovation, economic disequilibrium, the shortening "half-life" of knowledge, and new findings in cognitive science dictate that the University of Delaware reestablish the role of a "learning-centered" research university that engages stakeholders beyond the traditional campus. One vector of this emergent university will be to present a revitalized vision for community connections, outreach, and public engagement. How can the University most effectively engage its myriad stakeholders in a reciprocal connection to serve both the institution and the public good? How can interdisciplinary (and international) scholarship and programs facilitate lifelong learning and engagement? What changes could happen at UD if we were to have an engaged educational and social contract that valued diversity everywhere, every day?

Implementation Ideas

1) Establish a definition for diversity in the context of our campus community and society.

2) Create an ongoing and active dialogue among the entire campus community (through a range of activities initiated and attended by the President) regarding the role of diverse backgrounds, experiences, roles, and thought in supporting the University mission.

3) Increase outreach to regional secondary school students of all socioeconomic backgrounds, with a special focus on minorities and English Language Learners, through increased participation in information sessions and via the establishment of UD mentoring programs for their students.

4) Create at least five (over the next five years) service learning opportunities for students, and community-engagement opportunities for faculty and staff, through specific projects that tie UD to the all of the communities in Delaware.

5) Ensure the success of all admitted students. Engage students more intimately in conversations relative to campus transformation, social and educational.

6) Saturate the campus experience by strengthening educational experiences outside the classroom; more cohesive educational approaches to decrease "inside/outside" classroom sensibilities.

7) Leverage our relationship with ELI and its alumni base to make UD a leader in global engagement and the education of international students.

8) Establish a central office to promote and coordinate academic engagement activities with the community (a teaching/research equivalent to OEIP).

3. Institutional structures and processes should promote scholarly and artistic excellence, graduate studies, interdisciplinary studies, and community/industry engagement.

Promoting scholarly and artistic achievement is the fundamental goal of the research university. Critical discovery occurs through university scholarship, and this discovery can have a tremendous impact on society. In today's university, the research enterprise affects the entire community of students, staff, and faculty, and support for research infrastructure is essential, given the many constituencies and stakeholders involved (e.g. the university community, the federal government, companies, and global partners); this support would also help increase instruction and public service activities. Over the past several years, there has been significant growth in sponsored activities at UD and equally significant accomplishments in artistic and humanistic endeavors that we must recognize, celebrate, and support.

Establishing and maintaining excellence requires making choices. We cannot support everything and we must avoid the trap of becoming "a mile wide and an inch deep" in our efforts. Therefore, we need to undergo a process of assessment of our graduate programs, research centers and institutes, and even our departmental and college structures. Resources and infrastructure support should be directed to scholarly and artistic activities that promise genuine excellence based upon our distinctive strengths, our inter-institutional relationships, our location, and (of course) our land/sea/space grant missions.

Among the activities for which reorganized support would enhance UD scholarship, graduate education is key. The 3600 graduate students on the UD campus are a key engine in the generation of knowledge, benefitting not only the campus, but also the local and regional economy, and potentially new global technologies. While several of UD's graduate programs are highly regarded nationwide, there remain substantial opportunities to develop a university-level approach that would expand the graduate educational experience on campus and would yield graduate students with a unique set of skills relevant to the 21st-century global economy, including in policy and higher education. UD should consider supporting their graduate programs under a separate college, which may or may not itself be degree-granting.

Another area in which UD has exceptional potential to expand its activities with consequential impact is in interdisciplinary studies. UD has only a handful of cross-college interdisciplinary graduate programs. Examples include the Biomechanics and Movement Science (BIOMS), the Winterthur/UD Programs in American Material Culture Studies and Art Conservation, Bioinformatics (BINF), and Water Science and Policy (WS&P) degree programs. Each of these programs arose from the interests of a group of faculty representing multiple colleges or institutions, and many were catalyzed and assisted by a center or institute in their development. Promoting institutional structures and infrastructure (e.g., a graduate college or interdisciplinary schools) would enable UD to strategically initiate and promote hallmark interdisciplinary programs that would attract excellent students and position them well after graduation.

UD should also leverage our historic excellence in Study Abroad programs and service learning to develop a distinctive UD model of engagement that would synergize local experience with UD scholarship to address problems faced by communities in Delaware and beyond. Organizational structures and activities that would facilitate increased engagement with the community (locally, nationally, globally) should include 1) establishing a centralized organization framework to generate and promote interdisciplinary connections with myriad stakeholders; 2) institutionalizing a financial model and faculty/staff reward system that sustains these community partnerships and collaborations; and 3) upholding public engagement as a core mission that is fully integrated with and contributes to UD activities in learning and scholarship.

Implementation Ideas

1) Create a College of Graduate and Professional Education, with staff and budget commensurate with the size of the UD faculty and graduate student body.

2) Encourage interdisciplinary programs to support interdisciplinary research and the development of future graduate degrees.

3) Provide more housing and holistic career preparation (including teaching training and alt/ac advising) to enhance UD graduate student experience and outcomes.

4. UD must develop a shared strategic vision and mission that is clearly communicated and aligned with resources.

The UD community is ready for change. This inclusive planning process has been a good start for gathering ideas for maintaining engaged and inspirational leadership, transparent decision-making, and clear communication. The campus has identified opportunities to reconsider our organization and budgeting to increase collaboration and efficiency that will be carefully considered during implementation, and opportunities to increase the transparency of important hiring decisions and processes. Articulation of UD's institutional goals in terms our intrinsic values of being a learner-centered university, and communicating this message within and off campus, will support the perception by faculty and staff that their work is valuable and valued. Increasing our engagement as a community will also contribute positively to the campus environment.

When the campus develops priorities aligned with grand challenges that UD is uniquely poised to address, and develops institutional structures to support those priorities, UD will be in a position to affect real change. Key messages that have arisen from the UD community have been around (1) education of the global citizen (*UD strengths: study abroad, art conservation, material culture*); (2) engaging minds and bridging divides (*political communication; mining of social media; analytics*); (3) fostering health and wellness (*rehabilitation, bioinformatics, complex materials*); (4) innovating energy, security, and environmental solutions (*photovoltaics, alternative energy (wind, hydrogen, wave, catalysis, biofuels), climate change, coastal conservation, disaster research*); and (5) building a sustainable economy and broadening prosperity (*Horn entrepreneurship center*). The identification of UD key strengths that are based on measurable metrics and evaluated annually, will develop a synergistic focus and avoid concerns about being a 'mile wide and an inch deep'.

Some of our key areas of strength include:
- High quality education at a moderate cost to students.
- Many excellent research programs that provide opportunities to students at all levels.
- Focus on students. We keep classes small, by comparison to most public flagship research universities; faculty are accessible to students; we provide many co-curricular learning opportunities such as undergraduate research and study abroad. Students are well prepared when they leave.
- Innovations in pedagogy and student support. We are nationally known as leaders in problem-based learning and active learning, and ISELab is a tangible expression of our commitment to innovation in pedagogy. NUCLEUS and living-learning communities are examples of how we integrate curriculum with student support.
- Statewide stature. UD is widely respected by residents of the state, and seen as a destination for students.

Areas that we can continue to develop:
- Diversity. We need to diversify faculty, staff and the student body, and establish a more welcoming campus,
- Service to the State and local communities, for example by doing more service activities in the community, and serving non-traditional students.
- Central support for research. Core facilities, bridge funding, seed funding, proposal support, and research development have been discussed as areas that need more support.
- Communication and transparency about resource choices.

A reorganization of administrative support structures to align with mission will significantly improve academic operations. UD should be proud of what we have accomplished with lean staffing, and should benchmark, assess, and institute efficient and effective structures to support the UD mission. The increased efficiency of coordinating activities that cut across campus (e.g., HR, IT, CPA) will help UD align its activities with mission and to increase its impact. The implementation of stable budget models, according to key principles, will also be critical in UD achieving its mission. These key principles should include (1) assigning revenues and costs in a fair and predictable manner; (2) incenting units to increase revenues and reduce costs while holding excellence paramount; (3) encouraging and rewarding innovation and efficiency; (4) being as simple as possible; (5) providing leadership with the financial capacity to lead; (6) minimizing disruptions; and (7) providing a sufficient pool of central resources to support UD-wide initiatives.

By clearly articulating our goals and values and aligning our staffing and budgeting with them, we can take advantage of the opportunity presented by this strategic planning process and build the kind of consensus that will inspire desired change at UD.

Implementation Ideas

1) Foster improved morale and a sense of community by having the President visit with academic and nonacademic units at least once per year to increase communication about mission, vision, and values.

2) Have the President's (or EVP's) office implement a "staff sabbatical" via a job-shadowing experience for all UD staff to spend several weeks working in other units around campus.

3) Require all administrative units to actively solicit and rely on "customer" feedback to ensure that they are meeting needs and expectations of their clients and stakeholders and to clearly communicate any changes to the relevant parts of the campus community.

4) Overhaul HR processes, timelines, and training related to classification and compensation and hiring.

5) Establish a mechanism to remove consistently underperforming supervisors, managers, chairs, and administrators.

6) Actively encourage staff to identify and propose innovative solutions to existing problems and reward and recognize staff for doing so.

7) Require administrative and academic units to engage staff of all levels within a unit to brainstorm ways to innovate business practices at least once per year.

8) Require managers to include staff of all levels to participate in (nonacademic) hiring in their units.

9) Consider implementation reward system for non-faculty positions for assuming additional temporary or permanent responsibilities/projects or for particularly meritorious performance.

10) Consider implementation of a public budget model of 3-5 years, rather than yearly, so that units can better plan for the long-term, instead of reacting on an annual basis.