ENVISIONING VIRGINIA TECH

BEYOND BOUNDARIES

ADVANCING AS A GLOBAL LAND-GRANT UNIVERISTY

THEMATIC AREA GROUP REPORT

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VirginiaTech

The task is not so much to see what no one else has yet seen,

but to think what nobody has yet thought about which everyone sees.

–Arthur Schopenhauer

A land-grant university concentrates on the creation and dissemination of knowledge that enables people. At the Morrill Act's inception, and remaining relevant today, land-grant universities are structured around "placing knowledge in the hands of people who can apply it in the world" (Provo, 2013). The land-grant vision considers access to higher-education as a public good and develops avenues that increase the dialogue between research and practice.

Over time, the land-grant design has led to a tightly integrated system that fuses: research and teaching; knowledge and practice; access and quality; university and community; and learning and economic prosperity. In the era of the Morrill Act's passage, the land-grant model focused on the mechanical sciences, agriculture, and military because these three areas were the disciplines most relevant to that time and place. Today, global interconnectivity and advances in technology challenge the meaning and interpretation of what enables people. As land-grant institutions grow into global land-grant institutions, they need to be inclusive, integrated, and dynamic. Virginia Tech is considering how global changes (i.e. climate change, globalization, resource constraints) and modernization (i.e. advances in technology and communication) shift the definition of what the land-grant university will be.

The Evolving Land-Grant

The modern land-grant university should remain committed to science that holds the public in mind. When asked about his role in helping to identify the Flint, Michigan lead crisis, Virginia Tech Civil and Environmental Professor, Dr. Marc Edwards contended "Science should be about pursuing the truth and helping people." Higher education is becoming increasingly tied to private, public, and philanthropic investment. This is a trend that land-grants are a part of; however, a modern land-grant should also act as an incubator of discovery and public value. Promoting values like discovery and public value create a multi-directional engagement with society that focuses some aspects of research on underserved populations, gaps in private, public, philanthropic agendas, and areas relevant to the university's geographic footprint.

The modern land-grant university prepares learners with the knowledge and skills demanded by the global economy. This requires students to develop a number of baseline competencies—including written and verbal communication, fluency in technology, and the ability to identify and solve problems. Alongside these concrete skills, Rice (2011) argues "students need to be able to quickly understand new technologies, processes, and concepts that likely did not exist just a few years, or even months, earlier." In their careers, students will be asked to perform a myriad of roles and tasks. To be a globally-oriented, modern land-grant, Virginia Tech must find ways to expose students to cutting-edge research and global experiences, while equipping them with the baseline competencies needed to perform under shifting and unexpected conditions. Equally, the land-grant and service missions of Virginia Tech necessitate ethics, cultural understanding, empathy, and public service.

Virginia Tech's motto *Ut Prosim* serves as a useful catalyst for the engagement aspects of the global land-grant university. Broadening the university's lens to international arenas is an opportunity to address social and resource inequities, provide new audiences access to high-quality research and teaching, and bolster our student's understanding of global cultures and economies. As Virginia Tech advances global engagement, it needs to think critically about how these shifts present challenges to the status quo, as well as how the university will use its existing pockets of excellence to respond to global issues. A global land-grant has obligations to promote a global exchange of ideas in teaching, research, and engagement that remain grounded in the Morrill Act's founding missions of supporting underserved places, advancing community-centered prosperity, and expanding access. In short, the global land-grant employs science and collaboration to address common problems that will stimulate a generative dialogue between the university and the world.

Unterhalter and Carpentier (2010) argue "Higher education has the potential to reduce or increase inequalities depending on the form of policies institutions, governments, intergovernmental organizations and transnational associations implement." As Virginia Tech advances as a global land-grant, this international lens transforms its mission and audience:

How is Virginia Tech projected to the world; and

How is the world projected back to Virginia Tech?

The Distributed Network

The Global Land-Grant Committee's discussions coalesced around the idea of promoting a distributed network framework of organizing that would focus on merging dimensions of the university into a project-based coordinating structure. This framework for organizing would package elements of the university around problems, letting the university utilize its disciplinary and academic strengths in novel ways. The distributed network offers a platform for collaboration between Virginia Tech, individuals, and organizations drawn from the public, private, and nonprofit sectors, that would extend beyond our campuses to new frontiers.

The distributed network would maintain the current disciplinary structure of the university. Instead of deconstructing disciplinary boundaries, the distributed network would graft disciplinary expertise into a functioning problem-centered structure. In short, the distributed network's purpose is to contextualize disciplinary expertise within complex problems. This would bring together elements of the university into a coordinating structure designed to support discrete, loosely coupled relationships. These would be similar to, but more agile than, inter-disciplinary teams. Purposive design would draw on Virginia Tech's distinctive academic and geographic strengths to address multifaceted, large-scale issues that extend the university's land-grant missions. A dispersed and adaptable network of this kind is required to differentiate and diversify Virginia Tech's capacity and provide a competitive advantage to the university in stimulating discovery, promoting engagement, and developing new funding opportunities.

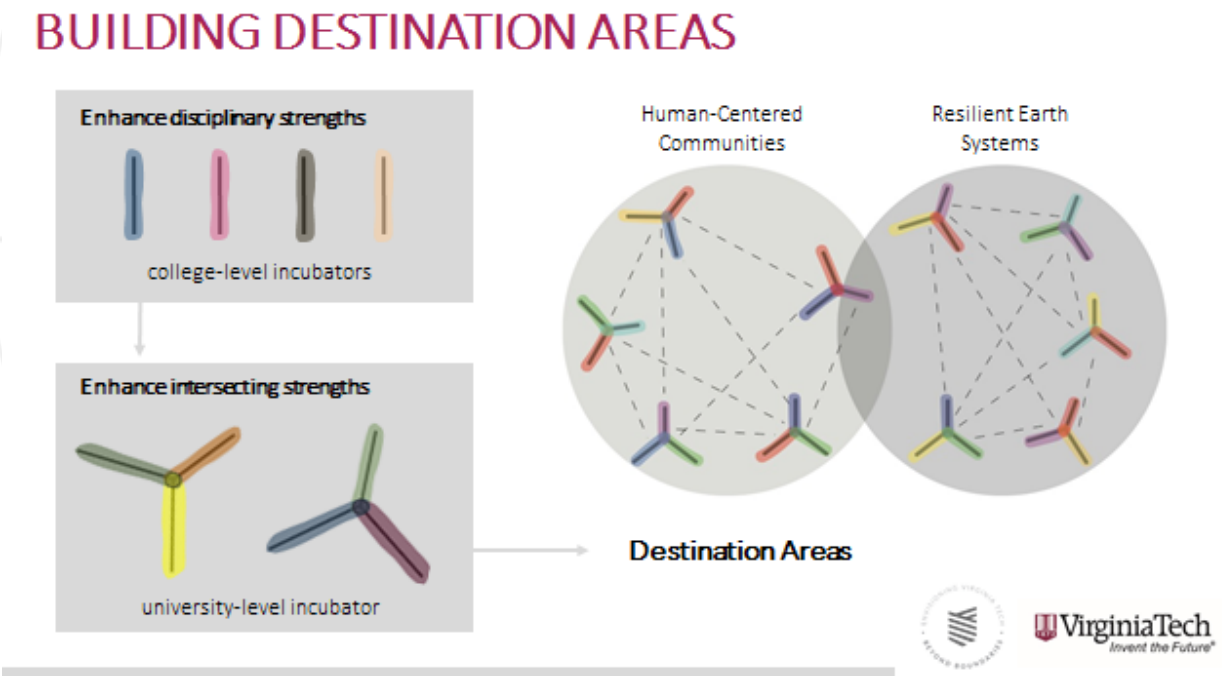
This framework would encourage meaningful and productive external partnerships. Many higher education partnerships in the 20th century entrenched universities in commitments that tied up resources, time and skills. The modern world demands that the university approach

partnerships with what Sharef (2015) calls simplified access, “As the university builds relationships with institutions abroad and focuses its resources on simplifying access to international partners, global collaboration is more likely to occur. These broader, structural changes will ease the way for individual faculty and departments to initiate the type of collaboration that leads to multinational coauthored work” (23). Organizing structures like distributed networks would allow Virginia Tech to utilize technology and management that create more transient, streamlined, and effective disciplinary and cross-disciplinary partnerships.

Destination Areas, innovation hubs, smart environments, and global engagement hubs promote the distributed network approach. These iterations of the university should be organized around large-scale problems that widen the aperture of the university’s engagement, incorporating topics like: Feed the World, Build the World, Enrich Life in the World, and Move the World, Protect the World, Sustain the World, and Empower the World. Similar to the way that Destination Areas integrate crosscutting disciplinary strengths around problems (see Figure 1), distributed networks would bring together expertise, ideas, and resources to inspire transformative collaborations and solutions.

In the short run, broad topics allow the university to leverage its existing strengths into existing problems spaces. On a longer time horizon, topics of this breadth help Virginia Tech differentiate itself to provide distinctive learning and research experiences, as well as make the university more attractive to financial donors and funding streams. Themes of this nature are internationally aspirational, providing a vision for how Virginia Tech will manifest *Ut Prosim* to the world. These broad domains also allow the university to fluidly move into emerging global problems and fields as complex issues evolve.

Figure 1. Destination Areas: A Component of Distributed Networks



Institutions of higher education are monolithic structures that struggle with flexibility and adaption. Virginia Tech must look for ways to innovate, coordinate, and scale its management structure in constructive ways. The Beyond Boundaries process should be cognizant of how time, money, and expertise can be freed of bureaucratic aspects to become nimble and unrestricted. The distributed network addresses this issue by utilizing Virginia Tech's existing strengths and values in agile, accelerated, and novel ways.

How will Virginia Tech Respond?

The Global Land-Grant Committee recommends that Virginia Tech consider several additional courses of action:

1. **Virginia Tech should incorporate a learning element into distributed networks, as well as the broader university, that allows prior experience to feedback into future iterations of the framework.** The distributed network model would support a fast-to-fail approach to program evaluation allowing nimble movements between different projects and styles. The coordinating structure can also enhance the quality of partnerships through learning and developing best-practices that strengthen future iterations of the distributed network and other university initiatives.
2. **Virginia Tech needs to deepen its roots in the Washington, DC/National Capital Region (NCR).** The university's global strategy begins with an increased presence in the National Capital Region. The NCR represents one of the world's most globalized metropolitan areas and offers the best way for the university to increase its attractiveness to global audiences. Further, the NCR provides an excellent location for Virginia Tech to strategically expand its international programs within close proximity to existing campuses.
3. **Virginia Tech needs to directly support Virginia businesses in international growth.** Virginia Tech needs to forge partnerships with businesses to help provide skill acquisition, language training, specific education needs that businesses require for their own globalization. This would allow the university to serve Virginia businesses global growth, as well as provide an opportunity to collaborate with businesses in international markets – receiving internship opportunities, graduate placements, and an expanded international alumni network.
4. **Virginia Tech needs to expand international engagement opportunities for students.** In the modern world students need opportunities for exposure to international experiences and learning. Of equal importance, is the need to maximize the amount of students that can participate in study abroad programs. Virginia Tech should move away from static, "brick and mortar" international programs (which are inherently expensive and costly) toward more fluid ideas like tuition swaps, consortiums, and provide access to grants and scholarships that smooth the costs of global study and research opportunities.
5. **Virginia Tech should establish an incubator that dedicates significant, unassigned financial resources to globally-focused projects.** Similar to the Michigan Third

Century Initiative's MCubed funding mechanism, a Virginia Tech centered incubator should solicit ideas from the university's existing talent, ingenuity, and creativity. Global projects should be encouraged to put forward ideas that solve international problems through innovative research, education, and outreach. This would use a competitive bidding process that allows faculty and staff to submit proposals that solve problems of importance to the university and world. A competitive bidding structure allows the incubator to link financial resources to actionable directions.

6. **Virginia Tech should advance opportunities for global collaboration in Virginia.** Many of Virginia Tech's land-grant assets (e.g. extension network, research stations), as well as Virginia's distinctive ecosystem (e.g. Chesapeake Bay, Appalachian Mountains) could serve as a "Living Lab" to the world. Virginia's advantages aren't limited to natural resources. Virginia Tech's access to the National Capital Region and distinctive features like the Virginia Tech Corps of Cadets make the university an attractive partner for research, study, and engagement that tackles the world's complex problems on Virginian soil.
7. **Virginia Tech must become a global university at the college and department level.** As the university transitions into a global land-grant, international characteristics need to become a part of the university's DNA. Colleges and departments need to think critically about their role in Virginia Tech's globalization. This should include creating opportunities like:
    a. Visiting professorships, fellowships and lectures that attract international talent and support internationally focused projects.
    b. Incentivizing the tenure and full professorship hiring processes to place additional weight on publications and research awards that have international focus and co-authors.

    Salmi (2009) argues that "Attracting the best – students, scholars, and research partners – from anywhere they can be found has become the modus operandi of the world's best institutions. As borders become softer, the competition for the best has become more intense." (64). To remain competitive Virginia Tech must find ways to increase its attractiveness to international students and faculty throughout all levels of the institution.
8. **Virginia Tech must consider reorganizing its current structure that supports global affairs**. Reorganization of the international aspects of a university is a common outcome in long-term visioning exercises (e.g. University of North Carolina - Chapel Hill). Virginia Tech should reconsider its current coupling of international programs and domestic outreach to create a tighter focus on global programs. Further, it might consider creating new globally oriented positions like a global alumni association director and/or a region specific global initiatives director. These, or similar, positions would be charged with stimulating new ideas and directions for the university's global land-grant objectives.
9. **Virginia Tech should continue to promote cultural understandings through ongoing initiatives such as InclusiveVT and the arts.** Initiatives like InclusiveVT and programming at the Moss Arts Center offer opportunities for people to reflect on global and cultural exchange with the university community. Students who are unable to participate in international study and research have an opportunity to deepen their

cultural understanding and experience through offerings at the Center for the Arts, for example. The university also should think critically about how it can leverage international research, learning, and outreach initiatives through promotional events, lectures, and interactive learning opportunities on its campuses. Concurrently, the university should continue to build on InclusiveVT's progress on inclusion, diversity and promoting cultural understandings.

10. **Virginia Tech should embrace global opportunities as the "frontier of funding."** Virginia Tech Vice President for Outreach and International Affairs Guru Ghosh calls international giving the "frontier of funding" and argues that moving forward the university needs to become more nimble in its financial approach (G. Ghosh, personal communication, June 23, 2015). Further, many of the recommendations of the global-land-grant committee strategically position the university to be poised to initiate new financial partnerships, become more competitive to external funding sources, and develop new forms of philanthropic support. University development, the alumni association, and the university's global programs need to continue to deepen their connection and outreach.

Conclusion

The Boundaries process provides the university with a venue for reflection and action. Reflection by the global land-grant committee centered around the foundational value of service and the land-grant mission of creating and disseminating knowledge that enables people. The committee's recommendations provide a blueprint for action that continues to support these values as Virginia Tech advances globally.

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