

Transdisciplinary Engagement: Advancing the Community Engagement Mission for All

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More and more public universities and community colleges are becoming aware of and invested in their engagement responsibilities. While this awareness is promising, it is well shy of their proclaimed aspirations.

Recognition of university engagement by the Carnegie Foundation Elective Community Engagement Classification (Commission on Public Purpose in Higher Education, n.d.) and [Engagement Scholarship Consortium](#) (ESC) is both timely and encouraging. Interviews with 27 university presidents and chancellors in 2016 and 2017 pointed to recognition of reciprocal needs and opportunities with communities even as universities struggled to afford such work in the face of other priorities and declining public appropriations (Gavazzi & Gee, 2018). Despite these obstacles, as of 2020, the Carnegie Foundation had granted the community engagement classification to 357 institutions of higher education (Commission on Public Purpose in Higher Education, n.d.). The engagement message is getting out loud and clear.

Land-grant universities (LGUs) benefit from the deep engagement legacies associated with their agricultural experiment stations (AES) and Extension services. Yet Extension programs have struggled to maintain their once unassailable status as the centerpiece of engagement on LGU campuses. According to C. Peter McGrath, “Universities that are not engaged with their communities in the twenty-first century will soon find themselves disengaged from any meaningful relevance to the citizenry of the United States” (Gavazzi & Gee, 2018, p. vii). McGrath contends that the entire university, not just some parts of it, should be committed to helping communities solve problems—that is, should be committed to the principles of outreach and engagement. There are exceptional opportunities for LGU Extension programs and other campus outreach agencies to provide visionary leadership. A sustainable academic opportunity presently available is for universities to intentionally expand *transdisciplinary* engagement, teaching, and research. The challenges associated with broad

societal issues such as climate change, pandemics, sustainable food systems, and educational attainment require knitting together specialized disciplinary and interdisciplinary knowledge.

For more than a century, LGU AES and Extension programs have integrated disciplinary and interdisciplinary applied research and knowledge both locally and regionally. These institutional legacies have positioned them to nurture and advance transdisciplinary initiatives by building upon past programming. This opportunity can best be realized by elevating extension work to university-wide status and fostering engagement as a critical component of public universities’ primary mission areas: teaching and learning, research and discovery, and outreach and service.

We recognize that there are understandable challenges associated with repurposing disciplinary and interdisciplinary teaching and research toward transdisciplinary programs and toward a university’s engagement efforts. But these challenges are not insurmountable.

LGU Extension services are historic foundations of academic engagement. Extension programs are developed for communities, bringing university talent to bear on unique characteristics of place, both rural and urban. These institutions were academically engaged long before university-wide engagement became “cool.” In the wake of *Returning to Our Roots: The Engaged Institution* (Kellogg Commission on the Future of State and Land-Grant Colleges, 1999)—a report sponsored by the National Association of State and Land-Grant Colleges, now the Association of Public and Land-grant Universities (APLU)—campus-wide engagement and outreach missions have received broad infusions of attention and some additional resources. The APLU Council on Engagement and Outreach’s white paper “The Centrality of Engagement in Higher Education” (Fitzgerald et al., 2015) emphasized broad categories for advancing university-wide engagement as a central institutional mission equal in status to teaching and research. A central theme of the report was for universities to focus on transdisciplinary pedagogies. These APLU

reports are guideposts for universities seeking to become 21st-century engaged universities. Yet LGU Extension services have largely remained outside national, mainstream discussions about repurposing university-wide engagement both nationally and on individual campuses.

A central conundrum for Extension services and for most campus engagement offices is how to project campus leadership. Campuses can greatly benefit from tapping Extension's connections to statewide audiences, but leading engagement efforts may be difficult if campus-wide faculty and staff perceive Extension departments as narrow political and academic centers involved in agriculture alone. While this reputation is mostly not deserved, the perceptions of stakeholders and campus colleagues often inhibit campus-wide leadership roles for extension specialists. Placing Extension in a leadership position could present an internal contradiction for both extension specialists and their broader campus colleagues, though it need not. If the current state of affairs is left unattended, however, Extension will likely continue its slow, methodical decline in importance within the academy.

This is a critical time for LGU Extension. We believe there is an extraordinary window of opportunity to provide much-needed campus leadership that will champion transdisciplinary academic teaching, research, and outreach. LGU Extension's national leadership organization, the [Extension Committee on Organization and Policy](#) (ECOP), continuously assesses current and future options for state and local Extension programs. For many, an opportunity exists to qualitatively shift from college-centric to campus-wide leadership without harming long-term affiliations with agricultural and rural partners.

Critiques of and Opportunities for LGU Extension

With a few exceptions, LGU Extension services have not participated in broader APLU engagement programs and meetings. Perhaps the most strident critique of the field was delivered by the president of West Virginia University, Dr. E. Gordon Gee, in his keynote address at the 2019 ESC conference in Denver (Gee, 2019). Gee, a very strong advocate for extension, laid down a vision and a warning. He argued that extension needs to be a significantly broader contributor to community engagement than simply through agriculture. In largely agreeing with President

Gee's message, we offer several organizational paths toward university-wide engagement at LGUs that include Extension services.

Extension offices are well positioned not only to collaborate with academic and research leaders but also to provide frameworks for advancing discussions on integrated campus-wide transdisciplinary initiatives. Extension services can use their deep local and state presence to facilitate connections for teaching, research, and service, but acting alone, they are unlikely to capture the full benefits of transdisciplinary engagement.

Gee pressed this mixed public university audience, primarily from non-LGUs, to reinvent Extension by rhetorically asking: "Why are you still running your community outreach programs through colleges of agriculture?" (Gee, 2019). His was an articulate exhortation. But rhetoric, while captivating among the choir, doesn't seed well among those who feel accused of inaction and implicitly indicted for not seeing the obvious. We think most Extension faculty and staff are interested in learning more about the dynamics of engagement, but more importantly they are in search of reasonable and rational groundings for taking on potentially risky changes.

Fitzgerald et al. (2015) identified fundamental academic functions and missions key to expanding engagement throughout higher education. Their case for the centrality of engagement, particularly for extension, emphasized transdisciplinary pedagogies that prioritize the broad external relevance of academic enterprises:

Challenges to higher education include efforts to increase inter-, multi- or trans-disciplinary scholarship; to respect multiple approaches to knowledge; to reject disciplinary turfism; to change outdated reward systems; to refocus unit and institutional missions; and to breakdown firmly established and isolated silos. It is essential to align engagement with key institutional priorities so that engagement projects and initiatives are seen to be mechanisms for enhancing higher education's broadly conceived goals. For institutions to fully incorporate engagement into the institutional mission they must fully address issues related to structure, budget and operation. Faculty involvement and support

for engagement through academic governance are essential for furthering the institutionalization of engagement. (Fitzgerald et al., 2015, p. 3–4)

The authors are fundamentally optimistic about the potential for Extension services and other campus engagement units to collaboratively advance inclusive and transdisciplinary organizational cultures and structures—enhancing the relevance and impact of higher education in all sectors of society.

This inherent optimism about public higher education's capacity to take on the controversial issues of any historical moment aligns with what Extension services have been doing for more than a century. These institutions have always been sensitive to the shifting needs and demands of their immediate stakeholders. The Western Extension Directors Association's Timberline Manifesto, for example, pushed the group's regional agendas toward embracing identified opportunities for transdisciplinary regional programs (Reed, Swanson, & Schlutt, 2015). Extension services have been "demand-driven," but the other side of this conceptual equation is for service to drive demand. If the boundaries of service are limited to single college or disciplinary foci, then demand may be proportionally limited. University-wide, engagement-oriented units grounded in diverse talent pools can create an institutional capacity for improving public legitimacy and reciprocally provide rich experiences for teaching and research missions. Simply responding to dependable stakeholders is not enough for university-wide engagement—or for Extension. Engagement opens opportunities to create new services that bring in new stakeholders and, in turn, create more demand for engagement activity.

We appreciate that this is tricky—seeming to put the cart before the horse. Roger Rennekamp pithily reduced this seeming impossibility to a simple statement differentiating outreach and engagement: "Outreach begins with an answer, engagement ends with one" (R. Rennekamp, personal communication, Spring 2010). Modern Extension services attempt to combine both as outreach becomes the result of their engagement with stakeholders.

What Is Transdisciplinary Engagement?

This is a reasonable question. In an important sense, transdisciplinary engagement is about

everything—well, maybe not everything, but it is about getting one's arms around big societal topics and embracing and flexibly taking on big picture issues, moving from strategic planning to strategic doing (StrategicDoing, n.d.; Wolfe, 2010). Transdisciplinary engagement is not a negation of disciplinary or interdisciplinary engagement, research, or teaching. Rather, big picture transdisciplinary inquiries capitalize on the best social and natural science available and generate their own demands for disciplinary and interdisciplinary engagement, research, and teaching. Moreover, the big picture does not reduce inquiry associated with these academic categories but expands into society's many diverse cultures of creating and interpreting knowledge. The creation of knowledge is not the exclusive domain of scientific inquiry. For Extension, this is second nature. Extension's locally focused engagement and service necessitates big picture frameworks for smaller-scale, specific issues. Transdisciplinary engagement characterizes how we have approached big issues by trying to understand big pictures—locally, regionally, nationally, and globally. It is part of our engagement DNA. It is not new.

Transdisciplinary research and teaching flourish when they are organically connected with transdisciplinary engagement. For the academy, LGUs have the institutional structure and capacity to connect teaching and research with society—with "the real world." Extension has worked with farmers, ranchers, and youth; with rural and urban leaders; and within some very twitchy issues on the political landscape. LGUs' engagement services champion science, and, without maybe fully recognizing it, they also listen to and seek to understand how their fellow citizens frame their understanding of the natural and social environments around them. For instance, LGU AES and Extension services have learned from farmers and ranchers about sustainable practices for which science has not yet settled on explanations. Complicating outreach efforts, Extension programs and agents work with groups that view one another suspiciously but value the university's commitment to assisting them, even when they aren't pleased with what the university provides.

It is this capacity and legacy on which we are centering our commentary. Drawing on its outreach experience, Extension can lead alongside others in figuring out how to develop and reward transdisciplinary inquiry. In colleges of agriculture,

we have integrated our extension experiences with students as a normal teaching practice. But we need to be better campus partners as we step forward to fill leadership roles. We need to be university-wide. Our big issues—climate change, food systems, youth development, environmental sustainability, and others—require big picture frames. The great difference and societal benefit of the Extension system is that it is university-based. The same is true of the engagement and outreach services of all public universities and community colleges. Universities are modern society's answer to the cultural imperative of sustainable and democratic production and dissemination of knowledge (Swanson & Mao, 2019).

Many examples exist of transdisciplinary engagement initiatives. One of these is the Sustainable Rangelands Roundtable (n.d.). Initiated in the late 1990s by LGUs and the federal government, it sought to bring together key agricultural and environmental stakeholders on a frequent, recurring timetable to produce innovative, big picture frameworks meant to provide paths for collaborative, pragmatic initiatives. This effort has cultivated a transdisciplinary big picture by integrating disciplinary and interdisciplinary knowledge and engagement. Ecologists, economists, and sociologists learned not only how to cocreate models for sustainable rangelands but also how to approach this big picture challenge on common methodological and conceptual grounds. Another example is [Imagining America](#), which provides transdisciplinary frameworks for campus liberal arts and natural science initiatives.

Thinking About Transdisciplinary Engagement

Academic engagement can certainly incorporate transdisciplinary inquiry and outreach at local and global levels. That said, it is important not to think of transdisciplinary inquiry as a linear process. Transdisciplinary basic and applied research initiatives seem to be the first and central locus for current university-wide inquiry and innovation—that is, the starting point for a transdisciplinary campus culture. Translating transdisciplinary research into the classroom and student training is thought of as the next step. Applied or translational research tends to follow these linear paths, even among federal funding agencies. Engagement and extension are afterthoughts in response to political demands for societal relevance. If you accept this linear start-to-finish model of transdisciplinary inquiry, you buy

into a common systematic, normative academic position that the locus of inquiry is research and, maybe, the outcome is engagement. This is a silly and wholly unnecessary linear epistemological bias. Certainly, research to education to engagement is one transdisciplinary path. Equally possible is simultaneously moving from engagement to learning and discovery or from learning to discovery and engagement. Even these models imply linear assumptions. LGU Extension services are remarkable examples of institutional resiliency. They have had to be, given the messy realities of the human condition.

Presently, university resources seem to follow these linear epistemological and normative interpretive biases. Ideally, collaborative interdisciplinary inquiry would integrate learning, discovery, and engagement, simultaneously generating disciplinary and interdisciplinary inquiries. Transdisciplinary inquiry and action are a shared enterprise. Extension's legacy of the "expert model," an example of university-centric outreach, is focused on engagement's outreach programs. Our outreach has produced outcomes valued by broad sectors of our traditional stakeholders, and it's easier to measure impact by applying the expert model, a valuable administrative and political tool for attracting public support for programs. But the expert model does not begin with community engagement. It is not our intent to say that the expert model is illegitimate. Our point is that this linear thinking is just one of many ways to embrace transdisciplinary inquiry and socialization, though likely the least innovative.

Where do the questions for framing transdisciplinary inquiry come from? Ideally, they come from all points on a framing compass. Multistakeholder, multi-ecological contexts improve with inclusive dialogues across disciplines and publics. Engagement programs are a reasonable initiator for organizing and institutionally sustaining transdisciplinary inquiry. Extension is well placed to contribute to and benefit from transdisciplinary inquiry and outcomes. The same is the case for all public university engagement services.

Our proposal is for recognizing the value of disciplinary, interdisciplinary, and transdisciplinary academic endeavors. Each provides significant benefits toward developing inquiry and knowledge. Extension programs, as examples of university engagement, certainly include disciplinary and multidisciplinary

research and outreach, as they involve interactions among fractured publics and complex social and economic forces colliding and morphing over time. Gee (2019) provided an optimistic summary and challenge: “We must pioneer progress. We must prevail with purpose. We must nurture hope and resiliency and prosperity. And we must renew the covenant between ‘the people’s universities’ and the people who need us most.”

LGU Extension services can be leaders in rethinking our campuses’ commitments to teaching and research through expanded engagement. To do so will require working with campus-wide talent and embracing new and sometimes skeptical stakeholders. University-wide engagement need not be a threat to colleges of agriculture or production agriculture stakeholders. It certainly is a grand opportunity for youth development, for example in 4-H programs. Successfully meeting these and other institutional challenges will entail risks and possibly intense pushback. Efforts to become academic leaders through engagement will benefit not only our own campuses but also the LGU legacy itself. Lessons learned from LGUs’ successes and failures can inform other public universities and community colleges as they expand their public engagement.

What Can Be Done?

Well, a lot can be done. LGU Extension’s historic reason for being is its relevance for communities as determined by communities. This is equally the case for all public universities’ outreach institutions. What is imperative now is that LGU Extension services have a reason for being on campus that connects the entire university with a much broader public than has historically been the case. But achieving this goal will require purposive action, a call to action, by LGUs’ senior administrators. In our experience, most significant institutional changes, at least purposive changes, begin with broadly understood visions that require expanding the old and seeking new partners toward shared futures. This is easy to write, but difficult to do. For many LGUs and other public universities, outreach initiatives that move toward university-wide and comprehensive transdisciplinary teaching, research, and engagement may be thought of as unnecessarily disruptive—“Nothing is broke, why change?” If this is the dominant viewpoint, then the future will be a projection of the past. But we believe there are broad interests in both transdisciplinary studies and university-wide engagement.

By expanding LGUs’ extraordinary Extension services campus-wide, both traditional stakeholders and new publics can discover even broader mandates for engagement services. Moreover, this is not untrodden territory. There are LGU examples from which to learn. At play, we believe, is understanding the difference between unnecessarily disruptive and disruptive innovations. Harvard business professor Clayton Christensen, who authored the concept of disruptive innovations (Christensen, 1997; Christensen & Raynor, 2003), found that for most large, complex businesses, game-changing disruptive innovations were not nurtured from within. Rather, businesses were eventually required to internalize these innovations to assure their success and often their survival. The internal organizational self-interest antibodies tend to successfully limit qualitative transformations from within.

This article boils down internal and external triggers for creating qualitative shifts toward expanded, campus-wide engagement programming and coordinated transdisciplinary initiatives that involve all institutional university missions. There are internal reasons for exploring potentially disruptive but effective solutions. There are also real and perceived political barriers to stepping outside of traditional “outreach,” characterized by the expert model. Intentionally wading into the messy stresses of serving proven political constituencies while reaching inward to the whole university and outward toward unproven publics will be daunting. For LGU Extension services, this may particularly be the case for internal and external production agriculture interests. We propose here that there are substantial benefits for production agriculture. Some of these benefits may well lie in collaboration with political constituencies of other colleges and engagement programs on campus.

If we are correct that necessary but disruptive innovations are less likely to emerge from within public universities or from their existing politically sustaining stakeholders—but that they can be influenced by external pressures and opportunities—then two simultaneous courses of action may be possible. Externally, two national organizations have raised the importance of organizational innovations for public university engagement and outreach: the ESC and the APLU. The LGU Extension system is embedded in APLU’s [Commission on Food, Environment, and Renewable Resources](#) (CFERR), and within CFERR, it is part of the [Board on Agriculture Assembly](#) (BAA). BAA coordinates national policy

initiatives for LGU Extension and AES. Both ESC and CFERR provide platforms for advancing discussions on university-wide Extension and transdisciplinary studies and engagement. These APLU organizations can be external triggers for university-level discussions. Multiple groups, such as APLU's CFERR and Commission on Economic and Community Engagement (CECE), ECOP, ESC, and independent groups such as [Imagining America](#) and [Longview Engagement](#) can provide conceptual frameworks and advice. Transdisciplinary studies and engagement are presently valued among U.S. government funding agencies and most academic administrators. Incorporating transdisciplinary curricula, research, and engagement is currently low-hanging fruit for higher education organizational innovations.

Within public universities generally, senior leadership—especially vice presidents, provosts, vice provosts for research, vice provosts for engagement, and academic deans—can provide university voices for internal discussions. However, at LGUs, an important internal discussion must occur within colleges of agriculture when Extension reports to the college dean. Many LGU colleges of agriculture may conclude that the disruptive innovations described here are not worth exploring. If so, then we do not recommend imposing top-down directives. Where colleges of agriculture are willing to entertain sharing their Extension services with their campuses, then there are opportunities for incorporating disruptive innovations such that they become new legacies for university engagement and foundations for new resources made available by expanding demand for university students, staff, and faculty—for their incredible pools of human talent. Other public universities will have equally thoughtful discussions concerning their engagement services.

University-wide engagement, whether for LGU Extension services or for engagement programs and offices at other public universities and community colleges, must move beyond its proclaimed aspirations. Embracing community engagement and cocreation of programs and repurposing university missions to include transdisciplinary inquiry will benefit both the communities that universities serve and universities themselves.

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