Creating Institutional Supports for Epistemic Equity: A Social Ecological Approach to Engaged Scholarship

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Abstract

A social ecological framework is proposed that identifies institutional supports to increase public scholarship. The framework offers an analytical structure for conceptualizing how motivations interact at multiple levels of influence, as well as utility to increase epistemic equity and encourage behavior change through institutional supports that reward and recognize multilevel motivations. The authors draw on prior work that analyzed data from 49 interviews detailing practice stories to understand motivations for public scholars and found that faculty report motivations at individual, interpersonal, organizational, community, and policy levels.

Keywords: epistemic equity, engaged scholarship, faculty motivation, social ecology, promotion and tenure

A 2023 article in *The Chronicle of Higher Education* cited a Gallup Poll that found only a third of Americans have confidence in higher education, arguing that more community-focused scholarship could build back public trust (Fischer, 2023). In the article, blame is squarely placed on outdated institutional structures and disciplinary norms that do not value or recognize engaged scholarship in promotion and tenure. Several illustrative examples of recognizing engaged scholarship are offered as a response, including supportive university-wide policies and narrative CVs highlighting the impact of community-engaged research. Fischer's article is in line with calls by federal agencies and philanthropic organizations for broader impacts and community engagement as part of grant requirements. These are promising developments. However, the landscape of faculty recognition and rewards, including broader impact grantmaking (Hoppe et al., 2019), is uneven at best, and there is no consensus about the most effective institutional strategies to elevate engaged scholarship.

One avenue is to integrate engaged scholarship with university efforts to improve equity in higher education as faculty from historically underrepresented groups are disproportionately involved and invested in embedding their scholarly activity in communities around them, sometimes to the detriment of their own career advancement and success (Bell & Lewis, 2023; Kohl-Arenas et al., 2022). These findings are in line with research showing disproportionate service burdens (both internal and external service) on this group of scholars (Lunsford & Omae, 2011). Thus, when considered as a whole, the institutional support structures and rewards for public scholarship become a faculty equity and retention issue. An additional factor is the context of historically marginalized scholars who partner with communities underserved by the university (Abes et al., 2002; Bernal & Villalpando, 2002; Doberneck et al., 2011; Wheatle & BrckaLorenz, 2015). A multiyear research initiative undertaken by Imagining America (Kohl-Arenas et al., 2022) summarized the challenges that university public scholars face:

> Through over one hundred individual interviews, twenty multimedia case studies, a national graduate scholar survey, an online study group, and public conversations, we learned how public scholars have historically and consistently conducted research that matters—responding to urgent challenges

in the world, including on the pressing ecological, social, racial, and economic justice issues of our time. Yet, we also found that most academic institutions are still not designed to support this important work. By favoring narrow disciplinary boundaries and norms as well as individualized methods over collective commitments and reciprocal partnerships, most institutions marginalize public scholarship through outdated reward systems and bureaucratic obstacles. (p. 1)

In response, this reflective essay identifies supports that holistically recognize engaged scholarship with attention to epistemic equity. For the purposes of this essay, the "enaction" of epistemic equity is defined as "examining and responding to the impact higher education systems have on privileging whose knowledge is valued, what research is legitimized, and who gets to participate in the creation and spread of knowledge" (Saltmarsh, 2020, p. 153). Epistemic equity draws attention to strategies that address intellectual and disciplinary bias such that underrepresented groups' perspectives are fully recognized. Institutional supports that center epistemic equity provide university administrators a lens to consider what types of programs, policies, and initiatives should be prioritized, while signaling to individual faculty they are being recognized and rewarded for their engaged scholarship. It is important to identify the supports needed and their corresponding levels to address the multiple barriers that exist, which are context dependent and vary from institution to institution.

Previously, the authors analyzed interview data from 49 engaged scholars at a public land-grant university on the U.S. west coast that showed different levels of faculty motivations exist for pursuing engaged scholarship: individual, interpersonal, organizational, community, and policy scales (Rios & Saco, 2023). In the following, further utilization of a social ecological framework is proposed to identify institutional supports that scaffold multilevel motivations of engaged scholars, while also creating an institutional environment to encourage behavior change among faculty peers, academic personnel review committees, department chairs, and administrators alike within the promotion and tenure system. Accomplishing both aims is critical. In his afterword discussing

epistemic equity, Saltmarsh (2020) shared guidance on how to evaluate activist scholarship, while also calling readers to "move beyond" it by considering the relationships between epistemology and scholar identity and their structural implications:

> What would it mean for your committee (department, college, and University) to move beyond trying to make sense of, and fully and fairly evaluate the merits of, activist scholarship per se? What would happen, instead, if you approached this review through a lens of equity, foregrounding how questions of epistemology are connected to the identity of the scholar. A lens of epistemic equity could shape efforts to resist systemic forms of oppression and cultivate more equitable faculty reward policy that addresses prejudicial exclusion of scholars from participation in the spread of knowledge through credibility discounting and epistemic marginalization. (p. 153)

The following essay echoes this message, calling for systemic acceptance of diverse and marginalized forms of scholarship that often deviate from disciplinary norms. Arguably, an individual faculty's sense of epistemic inclusion and desire to practice engaged scholarship will increase when institutional supports exist at different levels that parallel faculty motivations, bolstered by an institutional culture called upon to respond to society's greatest challenges.

In the following essay, we review the application of ecological models within the engaged scholarship literature, including a focus on evaluation of programs and projects, societal impact, and institutional supports. This is followed by an overview of social ecology and the application of a social ecological framework to engaged scholar motivations that exist at the individual, interpersonal, organization, community, and public policy levels. This social ecological approach is then applied to institutional supports using illustrative examples that center on promotion and tenure, a key concern in the field. The case is made that promotion and tenure issues, including their expressions at different levels of influence, draw attention to the need for greater epistemic equity at multiple levels of influence. Finally, the conclusion includes a call for

more relational approaches to understanding faculty motivations across institutions of higher education, considering varying contexts and how individuals are situated in geometries of power spanning social ecological scales.

Literature Review

The present essay builds on the extant literature of ecological models used in engaged scholarship by drawing attention to multilevel motivations of individual scholars as the basis for designing and implementing institutional supports that fully recognize engaged scholarship. Multiple works cite Bronfenbrenner's (1979) ecological systems theory, which describes an individual's environment according to the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. His work highlights the importance of understanding human development within a broader context, emphasizing that individual development is shaped and influenced by the larger social, political, and cultural environments in which individuals live.

Within the engaged scholarship literature, the adaptation of ecological systems theory primarily focuses on the development and evaluation of partnerships and projects. (See also Elrod et al. [2023], who apply an ecosystem approach to systematic change leadership.) As examples, Bowland et al. (2015) used Bronfenbrenner's theory to assess individual and community levels of health and quality of life in a low-income housing community. Leonard (2011) drew on Bronfenbrenner to better understand the effect of a school-community partnership on student graduation, attendance, and dropout rates. Also focusing on schools, Shields et al. (2013) showed how an ecological systems orientation enhanced their service-learning undergraduate course, supported a systemic approach to health promotion in schools and communities, and facilitated strategic, mutual, and sustained partnerships. These studies highlight the benefits and implications of an ecological approach for university-community collaborations.

Some scholars have developed and evaluated individual projects that combine Bronfenbrenner's ecological theory with one or more complementary theories, encouraging readers to test the hybrid models in their own projects. For example, the "double rainbow model" is a long-standing approach for identifying all potential partners that can contribute to or could be affected by an engaged project (McLean & Behringer, 2008; Behringer & McLean, 2022). Integrated with the concept of units of identity and solution (Steuart, 1993), it posits that every individual possesses numerous social units of identity, which include self-concept, demographics, family affiliations, social networks, memberships, community ties, and broader societal affiliations. These units of identity can transform into units of solution when they foster relationships and collaborations to develop effective programs. The double rainbow model visualizes these concepts as concentric rings that mirror-image project partners and their social units of identity, aiming to serve as a nonhierarchical, cross-level planning tool for identifying various stakeholders in partnerships. This model has been used to complement additional frameworks, specifically GiveGet visualized by a table showing what each partner will contribute to and receive from a partnership and the four Rs of community engagement (relevance, reciprocity, research, and resilience), which aim to enhance approaches to engaged work (McLean & Behringer, 2008; Pruitt et al., 2019).

Reeb et al. (2017) presented a similar framework, the psycho-ecological systems model (PESM)—an integrative conceptual model rooted in general systems theory (GST). The PESM represents an integration of three conceptual developments: the ecological systems model (Bronfenbrenner, 1979), the biopsychosocial model (Kiesler, 2000), and the principle of reciprocal determinism (Bandura, 1978). The PESM was developed to inform and guide the development, implementation, and evaluation of transdisciplinary and multilevel community-engaged scholarship (e.g., a participatory community action research project undertaken by faculty that involves graduate and/or undergraduate students as service-learning research assistants). Reeb et al. argued that integrative conceptual models may increase the likelihood that community-based research projects will, among other benefits, develop and implement efficacious, sustainable, transdisciplinary, and multilevel projects, and assess constructs at multiple levels using a blend of quantitative and qualitative approaches.

Other scholars discuss ecological systems theory to draw attention to interventions that have a broad societal impact. In an introduction to a themed issue on

participatory research and capacity building for community health and development, Francisco (2013) argued that, although most of the literature is still dominated by researcher-run, targeted interventions with limited reach (i.e., affecting change among much less than 100 persons), the featured community interventions in the themed issue affect the broader social ecology. He explained that a growing literature on community-engaged scholarship is calling for collaborations between university researchers, state-level policymakers, and community-based groups to effect widespread changes in the social and physical environment. McNall et al. (2015) echoed these sentiments, arguing that failure to address complex dynamic systems of problems that interact and reinforce each other over time is in part due to the predominance of a university-driven, isolated-impact approach to social problem solving. These authors suggested an alternative approach called systemic engagement, which involves universities as partners in systemic approaches to community change using six guiding principles: systems thinking, collaborative inquiry, support for ongoing learning, emergent design, multiple strands of inquiry and action, and transdisciplinarity.

Although focused on the discipline of psychology, Ozer et al. (2021) drew attention to the utility of ecological approaches to institutional supports. They argued that the ecological theories of Bronfenbrenner (1977) and Kelly (1966) illuminate principles that can guide choices or anticipate consequences, and that community-engaged scholarship highlights infrastructural supports that are typically not present at R1 universities. Ozer et al. (2021) argued, "Support is needed at multiple ecological levels, from the department to the institution" (p. 1296) and posited that an ecological view of their cases underscores the multiple levels of intervention required for sustained institutional change to support and reward community-partnered scholarship. Their ecological approach is adapted in their recent scan of initiatives aimed at changing promotion and tenure systems to acknowledge the societal impact of research (Ozer et al., 2023). Mirroring this perspective, the Association of Public and Land-grant Universities (APLU) recently published the modernizing scholarship for the public good action framework, which draws from ecological approaches that provide strategies for public research universities to aid

scholars pursuing public engagement and research, emphasizing the importance of diversity, equity, inclusion, and justice in these endeavors (Aurbach et al., 2023).

The aforementioned contributions draw attention to the utility of ecological approaches in advancing engaged scholarship. However, little attention has focused on the application of ecological approaches to the lived experiences and motivations of faculty with respect to recognition and epistemic equity. The lack of institutional support structures and rewards for engaged scholarship is a faculty equity issue. Individuals from historically underrepresented groups are disproportionately invested in scholarship that benefits their communities, but traditional academic structures and norms impose risks for engaged scholars' career advancement and success (Bell & Lewis, 2023; Kohl-Arenas et al., 2022). This epistemic exclusion is widely recognized in the community engagement literature, as demonstrated through many studies' calls for the promotion and tenure system to institutionalize, instead of marginalize, engaged scholarship (Colbeck & Weaver, 2008; DeFelippo & Giles, 2015; Franz et al., 2012; Jovanovic et al., 2017; Nicotera et al., 2011; Wade & Demb, 2009). Here, the literature on motivations of engaged scholars offers insights into the integration of community-engaged scholarship in promotion and tenure policies at various institutions (Dickens et al., 2023; Falahee & Kerry, 2021; Janke, Jenkins, et al., 2023; Janke, Quan, et al., 2023; Moffett & Rice, 2022; Sdvizhkov et al., 2022). Scholars have noted interventions that would complement changes to the tenure and promotion system, including financial and funding commitments to support related activities (Dickens et al., 2023; Falahee & Kerry, 2021), climate improvement workshops, leadership opportunities with high impact and the ability to effect institutional change, service equity (Settles et al., 2025), and professional development (Doberneck, 2022). Several of these contributions emphasize the importance of defining engaged scholarship in tenure and promotion policies more clearly. For example, one study found that there is significant variability in how engaged scholarship is defined and described across different levels of governance (e.g., university, unit, department), suggesting that institutions may not have a standardized or consistent understanding of engaged scholarship (Janke, Jenkins, et al., 2023). These authors warn

that this inconsistency can lead to confusion and challenges in evaluating and rewarding engaged scholarship.

Applying a Social Ecological Framework to Engaged Scholarship

These recent literature findings highlight the challenges and opportunities in recognizing and promoting engaged scholarship and emphasize the need for clarity, support, and systemic changes to better reward engaged scholarship and integrate this field of endeavor into institutional policies and practices. However, committing financial resources, creating faculty development opportunities, or defining different levels of governance more clearly, although important, do not account for the breadth of interdependencies and relationships that motivate individuals and their behavior. To further ecological approaches to engaged scholarship, we propose a social ecological framework that makes explicit relationships at multiple levels based on a range of faculty motivations, as it conceptualizes individuals as embedded and active in interdependent social contexts that span relationships, institutions, communities, and public policies (McLeroy et al., 1988; Sallis et al., 2008). This framework is in line with O'Meara et al. (2011) asserting that "origins of faculty engagement" are shaped by "the social, economic, or cultural context" (p. 89). They argued that these contexts better explain "origins" such as "generational influences, involvement in identity politics, or power struggles for social justice" (p. 89).

Sallis et al. (2008) identified four main principles of a social ecological approach. First, the approach upholds the premise that individuals are embedded in interpersonal, organizational, community, and public policy contexts. Second, these levels of influence interact with each other as interconnected contexts. Third, social ecological approaches should be tailored to a specific type of behavior to effectively develop interventions that address the behavior, such as the behavior of pursuing engaged scholarship. Fourth, Sallis and his colleagues posited that multilevel interventions show the most promise for influencing behavior.

Engaged scholarship aligns with social ecological approaches and has been incorporated into several practitioner-based fields, such as health promotion, landscape architecture, and urban planning, for the purpose of identifying effective interventions at various levels of influence to effect behavioral change (Alcalay & Bell, 2000; Golden & Earp, 2012; Thering & Chanse, 2011). From a social ecological perspective, engaged scholarship holds space for cocreation and challenges the boundaries and expectations of traditional academic disciplines (Colbeck & Weaver, 2008; Stokols, 1998). Social ecological approaches also value community-engaged knowledge production and dissemination outside the academy to achieve and improve the sustainability and resilience of outcomes (Boyer, 1996; Stokols, 1996; Stokols et al., 2013). This type of approach includes an emphasis on transdisciplinarity and translational knowledge, drawing from transcultural perspectives and employing team-based and collaborative approaches (Stokols, 2018, pp. 319–349). Mirroring the engaged scholarship literature, social ecological approaches are sensitive to the understanding that individuals have reciprocal connections and interactions with their institutional and environmental surroundings (O'Meara, 2013; Sallis et al., 2008). Given these parallels, a social ecological approach holds promise to further understand engaged scholars' motivations, with an eye toward effecting behavior change while advancing epistemic equity. Its application to faculty engagement reveals that motivations exist at multiple levels (Table 1) and where institutional supports should be considered.

In applying a social ecological approach to health promotion, McLeroy et al. (1988) defined five levels of social ecological influence: *individual* (i.e., "intrapersonal"), interpersonal, organizational (i.e., "institutional"), community, and public policy. Individual, or intrapersonal, considerations are defined as "characteristics of the individual such as knowledge, attitudes, behavior, self-concept, skills, etc." (p. 355). They criticized behavior change models in health promotion that overly focus on the individual and promote a victim-blaming ideology, which assumes individual failure is the primary cause of illness. Although these interventions may incorporate elements such as interpersonal influence, they primarily aim to alter individual behavior (e.g., resistance) and not the social environment (e.g., social norms and rewards). McLeroy et al. argued that interventions focusing solely on individual behavior changes are insufficient and should be considered secondary to interventions that prioritize changes to surrounding environments. However, they

Table 1. Faculty Engaged Scholarship Motivations by Level:
A Social Ecological Framework

Motivational levels	Citations
Individual	
Personal experiences and identities; professional experiences and identities; epistemology.	Biccard & Mohapi, 2022; Colbeck & Weaver, 2008; DeFelippo & Giles, 2015; Franz et al., 2012; Malm et al., 2013; O'Meara, 2008; O'Meara & Niehaus, 2009; Wade & Demb, 2009; Ward, 2010.
Interpersonal	
Family relationships; colleague relationships; student relationships; community partner relationships.	Bowen & Kiser, 2009; Colbeck & Weaver, 2008; DeFelippo & Giles, 2015; Franz et al., 2012; Hou & Wilder, 2015; Jovanovic et al., 2017; O'Meara, 2008; O'Meara & Niehaus, 2009; O'Meara, 2013; Wade & Demb, 2009; Ward, 2010.
Organizational	
Institutional type and mission; institutional recognition and reward; institutional resources, policies, and practices; leadership, campuses, and departments.	Bao et al., 2023; Colbeck & Weaver, 2008; Darby & Newman, 2014; Forbes et al., 2008; Franz et al., 2012; Hou, 2010; Hou & Wilder, 2015; Jovanovic et al., 2017; Lewing & York, 2017; Malm et al., 2013; Nicotera et al., 2011; O'Meara, 2003, 2008, 2013; O'Meara & Niehaus, 2009; Wade & Demb, 2009.
Community	
Community interests; community and university connections; student learning and development; professional communities.	Abes et al., 2002; Baez, 2000; Banerjee & Hausafus, 2007; Blakey et al., 2015; Colbeck & Weaver, 2008; Darby & Newman, 2014; DeFelippo & Giles, 2015; Franz et al., 2012; Hou, 2010; Hou & Wilder, 2015; O'Meara, 2003, 2008, 2013; O'Meara & Niehaus, 2009; Osborne & Wilton, 2017; Richard et al., 2022; Wade & Demb, 2009; Ward, 2010.
Public policy	
Policy-relevant social issues; law and policy change.	DeFelippo & Giles, 2015; O'Meara, 2008; O'Meara & Niehaus, 2009; Osborne & Wilton, 2017; Peters et al., 2008.

did not forgo focusing on individual behavior altogether, positing that environmental support of individuals can reciprocally empower individual behaviors that change the social environment further. In the context of engaged scholarship, environmental support of individual scholars' personal and professional identities, lived experiences, and epistemologies can further empower both their pursuit of engaged scholarship and efforts to support engaged scholarship institutionally. For other individuals at the institution, such as academic personnel review committee members, department chairs, and administrators, environmental supports could scaffold their skills, shape their attitudes and knowledge, and ultimately affect their behavior and decision-making toward strengthening institutional supports for engaged scholarship.

Interpersonal elements entail "interpersonal relationships with—family members, friends, neighbors, contacts at work, and acquaintances" (McLeroy et al., 1988, p. 356). These social relationships comprise "interpersonal processes and primary groups—formal and informal social network and social support systems, including the family, work group, and friendship networks" (p. 355). In the context of engaged scholarship, social relationships can include networks of community members and partners with which a scholar demonstrates a high level of commitment. As in their critiques of individual-focused interventions, McLeroy et al. (1988) discussed the limitations of interventions that focus on changing individual behavior through social influences instead of changing the broader social context individuals are part of. They

pointed out that these interventions often overlook the network structure and function of social relationships, treating peer influence as merely the sum of individual interactions rather than understanding the significance of social groups. They suggested it is crucial to design interventions that target and transform the social networks and norms that underpin behaviors. Instead of aiming for individual behavioral change alone, they argue that these interventions should prioritize altering the social norms and influences within interpersonal networks.

Organizational aspects refer to "institutional factors—social institutions with organizational characteristics, and formal (and informal) rules and regulations for operation" (McLeroy et al., 1988, p. 355). McLeroy et al. described several features of organizations that may affect behavior. These features include incentives, management support, changes to regulations, and restructuring work, among other characteristics, that support behavioral changes (p. 360). A focus on organizational behavior change and academic culture is a dominant perspective within the faculty engagement literature, which draws attention to how institutional agendas, practices, policies, politics, and leaders affect faculty engagement (O'Meara et al., 2011). However, although institutional incentives are important, they can be transactional in nature, which is a motivation for some engaged scholars, but not for those who seek transformational structure and culture change.

Community, a term that has various connotations, is another level of social ecological influence. Beyond community as the setting for engaging localized places and populations, communities can also include individuals associated with a disciplinary or campus community. Importantly, faculty identify their work with diverse types of communities: communities of place (a common geographic location), communities of practice (common areas of work or profession), communities of identity (common populations such as age, gender, income, and race/ethnicity), and/or communities of interest (common pursuit, passion, or activity). Similarly, McLeroy et al. (1988) provided varying definitions of communities, in their case analyzing and informing health promotion programs. For them, community is referred to as a mediating structure between face-to-face groups where individuals belong (e.g., friendship networks,

neighborhoods), relationships between community groups within a defined area (e.g., local schools, health providers), and a juridically bounded area in which populations are coterminous with a political entity (p. 363).

Public policy refers to "local, state, and national laws and policies" (McLeroy et al., 1988, p. 355). McLeroy et al. described the three policy roles of development, advocacy, and analysis. These roles include the importance of public education and awareness on policy issues; encouraging citizens to participate in the political process via lobbying, voting, coalition building, and policy monitoring; and offering policy options to elected officials, the public, and affected populations, as well as public participation in policymaking processes (p. 366). They argued that there are important connections between public policies and communities. They noted that public policy can shape the social environment of individuals; however, they also called for policy work to reciprocally empower individuals to influence public policy. Mediating structures in a community come into play here to serve as connections between individuals and the larger social environment, acting as access points and sources of influence to the policymaking process. McLeroy et al. suggested that policy development, advocacy, and analysis can be employed to support existing community mediating structures, with the aim of further developing local capacity for changing public policy to benefit communities. Research associated with the public policy level includes different ways that engaged scholars give expression to societally impactful change and political engagement motivations. A focus on community engagement as a vehicle to influence and/or generate policy can serve as a motivational factor, as does the involvement of engaged scholars in policy-specific research.

The Case of Promotion and Tenure: Some Illustrative Examples

Social ecological approaches hold not only analytical import for offering more specificity in identifying engaged faculty motivations, but also applied value for informing interventions in practice. As discussed in the above overview of social ecological approaches, Sallis et al. (2008) argued that interventions at multiple levels work better to shape behavior, in contrast to interventions targeting one social ecological
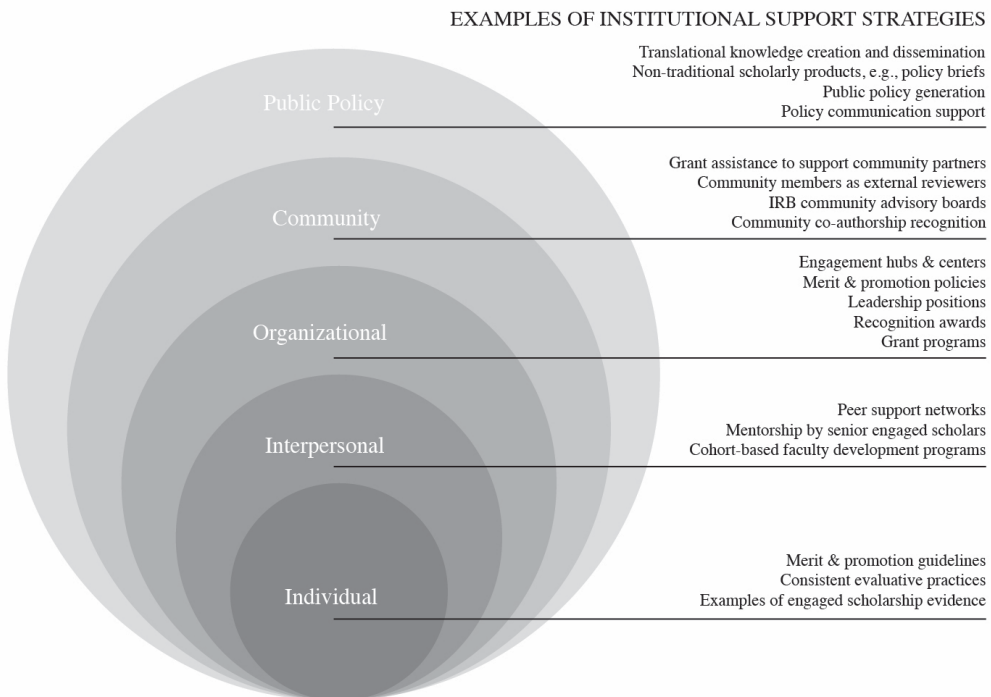
level of influence. Drawing from previous work on engaged scholar motivations at UC Davis (Rios & Saco, 2023), and to illustrate where institutional interventions can create supports to recognize and expand engaged scholarship in response to multilevel motivations, this section applies a social ecological approach to identify scaffolded opportunities for rewarding and recognizing scholarship in universities, including promotion and tenure systems. The aim is to create an ecosystem that is epistemically inclusive, while at the same time encouraging behavior change—among individual faculty, academic personnel review committees, department chairs, and administrators alike—leading to increased numbers of engaged scholars and density of networks with the aim of shifting institutional culture (see Figure 1).

Institutional supports at multiple levels can create a climate where engaged scholars feel valued, while signaling to department chairs and peer colleagues that individuals should be recognized for contributions that demonstrate impact beyond disciplinary norms. Importantly, the choice of which support and at what level will vary by institution based on size, emphasis, and resources available. For example, resource investments at a research-intensive university may target increasing the prospects for extramural funding through engaged scholarship, whereas at a small liberal arts college, increasing community-engaged learning opportunities for students may be a higher priority. However, this is not to suggest institutional support strategies should focus on one level of faculty motivation over others, as priorities and resources originate from, and vary by, different units and levels of governance (e.g., department, college or school, campuswide).

Examples of institutional strategies to support individuals can include providing merit and promotion guidelines for engaged scholarship or illustrations of engaged scholarship evidence. For some faculty, this form of support provides greater clarity in definition and metrics that articulate the impact of their work in dossier statements. At UC Davis, the application of this strategy included the creation of a new "Statement of Contributions to Public and Global Impact" (UC Davis Office of Public Scholarship and Engagement, n.d.): Individuals can elect to summarize the impact of their research, teaching, and/or service in a single

Figure 1. Multilevel Institutional Support Strategies for Engaged Scholarship

EXAMPLES OF INSTITUTIONAL SUPPORT STRATEGIES

Public Policy
Translational knowledge creation and dissemination
Non-traditional scholarly products, e.g., policy briefs
Public policy generation
Policy communication support

Community
Grant assistance to support community partners
Community members as external reviewers
IRB community advisory boards
Community co-authorship recognition

Organizational
Engagement hubs & centers
Merit & promotion policies
Leadership positions
Recognition awards
Grant programs

Interpersonal
Peer support networks
Mentorship by senior engaged scholars
Cohort-based faculty development programs

Individual
Merit & promotion guidelines
Consistent evaluative practices
Examples of engaged scholarship evidence

document, which provides evidence in engaged scholarship toward receiving a favorable merit or promotion resulting in a salary increase.

At the interpersonal level, supportive relationships within departments, disciplines, and peer networks would help ensure that engaged scholars' professional colleagues are aware of the value of their work; evaluate them effectively; and cultivate supportive spaces for professional development, interpersonal collaboration, and a sense of inclusion and belonging. The establishment of formal and informal cohort-based and peer support networks can help individuals find other engaged scholars to learn from one another. Sharing interdisciplinary methods of community engagement, novel approaches to service-learning, or guidance on navigating the system of faculty personnel reviews are some of the outcomes of networks. The Engaged Faculty Fellowship Program at Cornell University is one example of a yearlong experience where faculty develop community-engaged expertise, programs, projects, and networks (Cornell University, n.d.). The yearlong experiences are structured around a cohort of fellows that create a tight-knit group through monthly meetings to discuss readings and workshop individual projects.

Although more common, organizational-level supports are also vital. As organizations, universities can center engaged scholarship and engagement initiatives as the core of their institutional missions and identities. Explicit merit and promotion policies signal to faculty that their work is supported by their institution, while also providing guidance to department chairs, faculty personnel committees, and others that review faculty dossiers. At Purdue University, changes to promotion and tenure policies in concert with supportive guidelines to recognize engagement led to increases in the overall number of engaged faculty as well as tenure promotion success rates. Results included a fourfold increase from 17 to 72 individuals promoted and/or tenured fully or partially based on engagement (Abel & Williams, 2019). Similarly, UC Berkeley made changes to their manual of academic personnel to provide language for assessing community-engaged research as part of merit and promotion actions (Berkeley BMAP, 2021; Berkeley i4Y, n.d.). Beyond tenure and promotion systems, resources that support faculty involvement in engagement centers, recognition awards, and grant programs are other examples of organizational-level strategies, as are faculty recruitment and retention efforts that make explicit mention of faculty public scholarship to ensure a more diverse professoriate.

Communities are the focus of much engaged scholarship work, but often where institutions provide little recognition or direct financial support. The promotion and tenure system does not equally account for the engagement and longer timeframes required to develop meaningful community-engaged partnerships in the context of engaged scholarship, nor does it explicitly value knowledge created with, or within, communities. Recognition of this labor varies at best. Community members as external reviewers, IRB community advisory boards, and community coauthorship recognition are several key strategies that recognize the value of community perspectives and the important role these partners play as co-producers of knowledge. Community partner compensation is also an area of unmet need where financial assistance can have a direct impact, enhance institutional reputation, build trust, and strengthen relationships between engaged scholars and their community partners. It is also an important step toward advancing a university's equity goals, as are efforts by an increasing number of land-grant institutions to engage tribal communities in meaningful ways. Some examples of these efforts include South Dakota State University's Wokini Initiative, which includes enhancing research and outreach partnerships with tribes and tribal colleges (South Dakota State University, n.d.), as well as the TRUTH Project, which places value on place-based, tribally led research and is a collaboration between a number of recognized Tribal Governments of Minnesota, the Minnesota Indian Affairs Council, and the Office of American Indian and Tribal Nations Relations at the University of Minnesota (University of Minnesota Institute for Advanced Study, n.d.).

Lastly, institutional support strategies that mirror engaged scholar motivations to produce research responding to societal challenges and/or having public policy impacts can go a long way toward enlarging the community of engaged scholars, especially in the science, technology, engineering, mathematics, and medicine (STEMM) fields. Developing and rewarding faculty capacity to communicate effectively to policymakers,

write policy briefs, and educate the public on policies that affect communities and sectors would better align with engaged scholarship's translational and dissemination practices for broader impact. External grants from government agencies such as the National Science Foundation and philanthropic foundation programs such as the William T. Grant Foundation's Institutional Challenge Grant and The Pew Charitable Trusts' Evidence Project are increasingly looking to fund work that produces broader social impacts (National Science Foundation, n.d.; Pew Charitable Trusts, n.d.; William T. Grant Foundation, n.d.). The University of California's Climate Action Research Initiative, which is providing $80 million in funding to link public policies with research performed in partnership with local communities, is an example of states seeking authentic community engagement as part of grant requirements (University of California Research and Innovation, 2023). Importantly, a focus on broader impacts is a timely response to growing public criticism of institutions of higher education, as evidenced by a 2023 Gallup Poll that found confidence in U.S. higher education fell from 57% to 36% between 2015 and 2023 (Brenan, 2023). An increasing number of universities have organized initiatives to foster transdisciplinary research and extramural funding collaborations across the STEMM, health and social sciences, and arts and humanities fields to address societal challenges and "wicked problems" such as climate change, global health crises, and racial injustice. The University of Michigan's Bold Challenges initiative is one example supporting public impact research through programs and events that build equitable teams and partner with community partners (Office of the Vice President for Research, n.d.), as are similar initiatives at Indiana University, Ohio State University, and UCLA (Indiana University Bloomington, n.d.; Ohio State University, n.d.; UCLA, n.d.).

Conclusion

Echoing calls to reform current promotion and tenure systems, the present essay argues that epistemic equity and faculty sense of belonging will increase when institutional supports scaffold the motivations of engaged scholars. A social ecological framework was introduced based on previous research (Rios & Saco, 2023) and a literature review of ecological approaches, drawing attention to the utility of these approaches to engaged scholarship promotion and assessment. Engaged scholarship aligns with a social ecological approach, given an emphasis on community-engaged knowledge, reciprocity, transdisciplinarity, and cocreation. Importantly, this multilevel approach has been used in practitioner-based fields to identify effective interventions to effect behavioral change and provides a blueprint for institutional supports in ways that recognize engaged scholarship and increase epistemic equity.

A social ecological framework considers relational approaches to understanding and analyzing not only faculty motivations for pursuing engaged scholarship, but also institutional supports that match motivations. The case of promotion and tenure was used to illustrate examples of multilevel institutional support strategies that target interventions at the individual, interpersonal, organizational, community, and public policy levels. Importantly, the hope is that this approach to rewards and recognition will encourage university leadership to foster a culture and climate of epistemic equity and inclusion by changing institutional policies, programs, and practices. University leaders are well-positioned to see the big picture of engaged scholarship and have the power to shape institutional environments in ways that encourage certain behaviors over others.

Future studies can apply this framework to different types of higher education institutions to assess its suitability and fit, highlighting the unique contexts and pathways in which engaged scholarship is pursued. Future research may also explore the relationship between motivational levels and various engaged scholarship frames, such as community, public, civic, or society. Researchers may also employ comparative study designs to analyze more than one institution vis-à-vis a social ecological framework. Lastly, less common in social ecological approaches is an examination of equity and inclusion. In particular, the "scholarship of engaged scholarship" would benefit greatly from relational and multiscalar studies that critically examine how individuals are situated in geometries of power regarding their own social identities, relationships to others, the institutional cultures in which they find themselves, the communities they engage, and the public policies that impact communities.

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