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Global Engagement Model for Land-Grant Universities, a Grounded Theory.

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GLOBAL ENGAGEMENT MODEL

Global Engagement Model for Land-Grant Universities, a Grounded Theory.

by

Lorena Ivonne Ballester

A Dissertation submitted to the

COLLEGE OF EDUCATION AND HUMAN SERVICES

In Partial Fulfillment of the Requirements

For the Degree of

Doctor of Philosophy

At

WEST VIRGINIA UNIVERSITY

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Morgantown, West Virginia

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ABSTRACT

The purpose of this study is to examine how land-grant universities engage with the public in the era of globalization; to explain the institutionalization of engagement processes accounting for the global context; and, to integrate this analysis into a Global Engagement Model for Land-Grant Universities (GEM) implementing a grounded theory research methodology.

GEM's foundation is both theoretical and empirical. Applying the intensity sampling method, the universities selected for the empirical base were: The University of California, Davis, Michigan State University, and The Pennsylvania State University. Rather than an exact representation of individual universities' engagement models, the model is the researcher's representation of global engagement processes for land-grant universities in the twenty-first century.

The model explains how land-grant universities engage with the public in the global context in response to the network society and its knowledge economy. GEM's seminal component is *Bilateral Relationships* which are the basis for *Quality Partnerships* and subsequently *Engagement Networks*. GEM accounts for social processes occurring at the macro level and how they relate to local- and institutional-level processes. The model's contextualization of the land-grant university in its socio, economic, political, and historical conditions makes it comprehensive. Moreover, the identification of seminal components and their interconnectedness with the entirety allows for explaining a complex phenomenon in simple terms.

GEM model is a theoretical tool that can be instrumental in explaining change and continuity in the modern land-grant university. According to this research, the land-grant university has redefined its role over time. And, it is apparent that in the global society the land-grant university has become a *scholarship node*.

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DEDICATION

*To my sons Carmelo, Lucas, and Marcos, I love you unconditionally
To my mom, who has been there for me every step of the way
In memory of Claudia, my soul sister*

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Preface

Over time, the values upheld by land-grant institutions have expanded from a pronounced localism to a broader internationalism. In this research, I analyze land-grant universities' engagement models with the aim of explaining institutional responses that embrace both local and global context in the network society, which refers to the interdependent sovereign nations that share ideas, technologies, and businesses with each other (Castells, 2000).

In Chapter 1, I explain the historical contextualization of land-grant institutions by detailing the philosophical and political tensions within the Morrill Act of 1862, other legislations that molded land grants' organizational responses and socioeconomic changes since the inception of land-grant universities. Following this historiography are the problem description, research question, and significance of the study. I end the chapter by elucidating constructs that are essential to this research: globalization, internationalization, engagement, and deep organizational change. These constructs will be discussed in the orienting framework.

In Chapter 2, I present a comprehensive literature review in regard to two domains: outreach and engagement of land-grant institutions; and globalization and internationalization of higher education. The review includes theoretical models and empirical research. I conclude this chapter with a summary evidencing the literature gap.

In Chapter 3, I explain this study's qualitative research design: a grounded theory approach utilizing intensity sampling and the rationale for each methodological selection. The chapter also considers issues of trustworthiness and limitations of the study.

In Chapter 4, I analyze the data from three exemplary cases. These findings illustrate the types of engagement activities that land-grant universities perform with local and international public focusing on the interactions among those realms and institutionalization processes.

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In chapter 5, I describe an engagement model that explains how land-grant universities which used to primarily answer to local stakeholders now embrace an international array of stakeholders; how the institutions mediate between the international context and the local context; and the organizational change and continuity of land-grant universities in the network society.

Lastly, in chapter 6, utilizing Boyer's (1990, 1996) framework of scholarship, I point out potential limitations of the research design offer and suggest directions for future research under the scholarship of discovery. Then, I propose ideas to continue the scholarship of integration, scholarship of application, scholarship of teaching, and the scholarship of engagement. Then, I present ideas for the Center for the Future of Land-Grant Education housed in the College of Education and Human Services at West Virginia University, my alma mater. The chapter ends with a conclusion.

CHAPTER 1: INTRODUCTION

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Land-grant universities were instituted in the 1860s in response to the social and economic developments in the United States (Cordie, 2019). Since this time, the nature of the existence of land-grant universities has evolved into large public educational institutions that offer a wide range of educational opportunities. With the advent of information technology, land-grant universities continue to expand in terms of their prioritization of internationalization and globalization (Castells, 2000).

In this study, I examine the institutionalization of global and local engagement processes in the land-grant university of the 21st century. This chapter contains an introductory overview of the proposed study. The sections in this chapter include a historical contextualization, the research problem and research questions, the theoretical framework, the significance of the study, and definitions of key terms. The chapter concludes with a summary of the proposed study.

Historical Contextualization

The Morrill Act of 1862 originated a funding partnership between the federal government and state legislatures to establish institutions of higher education. In these institutions,

...the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life. (Thelin & Trollinger, 2014, pp. 77-78)

Eclectic in nature, this legislation embodied political and economic tensions inherent to the American society in the 19th century. Revisionist historians Sorber and Geiger (2014) identified those tensions as “interrelated movements of industrialization, the rise of science, international

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competition, nation-building and bureaucratization, academic professionalization, agricultural modernization, the rise of professionalization in fields like engineering, and an emerging middle class” (p. 388) in conjunction with less powerful forces of democratizing demands through the expansion of access to higher education and teaching practical education.

As Sorber and Geiger (2014) note, academic and entrepreneur Daniel Coit Gilman (1867) argued that legislators did not engage in a thorough discussion about the most viable and suitable national higher education model before approving the Morrill Act. Its rapid passage—made possible by the secession of dissident legislators during the Civil War—enacted a legislation supporting an eclectic educational model for the United States that was reflective of those contemporary political and economic tensions.

The Morrill Act of 1862 supported a broad range of educational approaches and the State’s ability to interpret the legislation in disparate ways led to the foundation of diverse institutional models. These models were shaped by the localities and their most powerful stakeholders (Gelber, 2013; Moran & Williams, 2013; Sorber, 2011). Sorber and Geiger (2014) asserted, “The recipients of Morrill Act funds borrowed selectively from the legislative text to comply with the law while tailoring institutions to local context” (p. 386). In the context of the proposed study, the local influences shaping the origin of land-grants universities is key in understanding later organizational tensions between local and global stakeholders.

George McDowell (2003) argued, “both by virtue of the character of their scholarship and whom they would serve, the land-grant universities were established as people’s universities” (p. 33). The local agents molding land-grant institutions, however, advocated for either a scientific versus utilitarian education or a liberal learning versus a practical study. It was not until subsequent federal initiatives that deliberately infused funding to agricultural research

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and extension that land-grants would reconcile research university ideals with the imperatives of access and utility (Rasmussen, 1989; Scott, 1970) and become people's colleges (Sorber, 2011).

The Hatch Act of 1887 funded agricultural research and the Smith-Lever Act of 1914 established and funded a system of cooperative extension services in order to transmit current agricultural practices to the people of the state and engage in socioeconomic development. The specificity of this Act generated a more uniform institutional response across land grants. Sorber and Geiger (2014) explained that Colleges of Agriculture and extension services housed the differentiated missions of outreach and engagement “and became the protector of the populists’ egalitarian, utilitarian, and community-based vision” (p. 387).

These three acts (i.e., Morrill in 1862, Hatch in 1887, and Smith-Lever in 1914) created a public system for connecting universities and all citizens to build a stronger democratic society (Fitzgerald et al., 2012). From an organizational viewpoint, the Morrill Act enabled a variety of institutional types shaped by the most powerful local stakeholders. On the other hand, the Hatch and Smith-Lever Acts caused similar units to emerge across institution types crystalizing the university mission of engagement with the local public through the offices of extension. These universities were embedded in their states, from the local political power charting the origin of the institution to the local public to whom land grants served.

There is some controversy regarding the origins of land-grant universities. According to Sorber and Geiger (2014), the origins of land-grant universities have been distorted. These authors argued that these institutions were not created as the people's university or representative of the population, with mostly the middle and upper-middle class benefitting from these developments. Moreover, the experiences of women and African Americans within the context

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of land-grant universities have been historically ignored. These critiques highlight the insularity of the supposed success of land-grant universities (Sorber & Geiger, 2014).

In the modern context of knowledge economy, land-grant universities underscore the role of knowledge and education as important assets (Collins, 2012). These envisioned university-community partnerships would soon expand from local, state, and national arenas to the international setting. Universities play an important role in both the creation and transfer of knowledge, particularly in terms of research. Land-grant universities are, therefore, responsible for a significant amount of research that is useful at the local and global levels (Lee & Graff, 2017).

In Castell's (2000) depiction of the network society, this author stressed that the vast flow of information and the interconnection of agents blur national borders and political units. This concept of network society highlights the continued interdependence of sovereign nations in terms of sharing ideas, technologies, and businesses. Although the network society blurs national sovereignty, this interdependence among sovereign nations emphasizes the benefit of collaborating in terms of theorizing, sociological imagination, and computational literacy (Castells, 2000).

The salience of network society is magnified in the knowledge economy, wherein education and knowledge are considered important assets (Collins, 2012). Motivation to engage in knowledge economy can be driven by profit or revenue, demand absorption, educational benefits for students, social and political integration, strategic alliances, professional development, reputation, research, and knowledge production (Johnstone & Proctor, 2017). For instance, higher education institutions aim to increase their research capacities to keep up with other nations (Collins, 2012).

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Drawn from Castell's network society and knowledge economy, this interconnected world is a new context for the land-grant institution and a prompt to engage internationally. Educational efforts are being made to keep up with the trends of internationalization and globalization (Altbach, 2002). Altbach noted that many institutions establish themselves in the knowledge economy by extending their global reach and establishing international partnerships.

Problem Statement and Research Questions

In this study, I explored land-grant universities' institutional responses to the global context. At their origin, land-grant institutions valued the development of the increasing industrial society in America, the advancement of their state, and the general progress of the nation in spite of other countries' progress. In the modern network society with a knowledge-economy, land-grant institutions face new opportunities and challenges including the need to collaborate and compete on a global scale. Institutional responses can vary from resisting change to embracing new contexts and adapting to remain current.

I analyzed three exemplary cases of institutions that became land-grant universities under the Morrill Act of 1862 and that have embraced and engaged with the global context while remaining committed to their local publics. I propose a global engagement model that explains the process of international engagement and its interaction with local engagement institutional processes. The exemplary cases served as a purposeful sample to analyze and explain the overarching theme of international and local engagement of land-grant universities and the following guiding questions:

1. How do land-grant universities engage with the local public in the era of globalization?
2. How do land-grant universities engage with the international public in the era of globalization?

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3. How do land-grant universities integrate local and international engagement?
4. How do land-grant universities institutionalize global engagement?

Orienting Framework

The orienting framework is grounded on the concept of interface and institutional processes; it builds on ideas from land-grant universities, outreach and engagement, globalization and internationalization.

Interface refers to the place where the interaction between different systems or processes converges, forming a meaningful relationship with each other (Yasseri & Bahai, 2019). Pashby et al. (2020) defined interfaces as “spaces of ambivalence where the same signifiers are deployed with multiple meanings and signal some underlying commonality across two or more orientations” (p. 146).

Interfaces between the local and the global realms have been examined in various educational contexts (e.g., Kohoutek et al., 2017; Pashby et al., 2020). The application of the concept of interface in these studies hinged on understanding how different perspectives or views can be integrated by understanding the relationship with each other. Through the concept of interfaces, seemingly disparate or divergent processes are examined in order to determine the relationship with each other and identify their similarities that can be the basis for their integration.

For the current study, the concept of interface was used to examine land-grant university engagement processes at the local and global level and their integration. Engagement interfaces exist between the university and its context (intermediate), within the university (intramural), and within the context outside the university (extramural). The constructs of Intramural Engagement,

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Intermediate Engagement, and Extramural Engagement Interfaces are based on Woodell's (2014) depiction of universities' economic engagement.

As illustrated in Figure 1, this study examined the intermediate local engagement interface (A-1), the intermediate global engagement interface (B-2), and focused on the intramural interface (Z) where local and global engagement processes can be integrated.

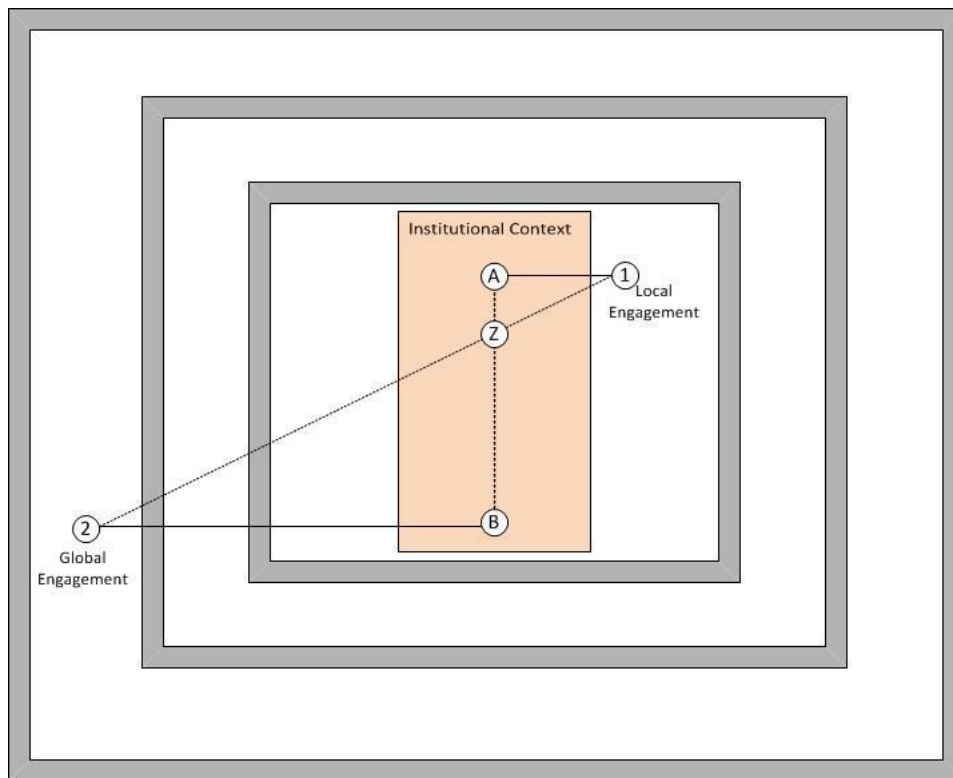


Figure 1: Interfaces of university engagement

Land-grant universities are institutions founded under the premises of the Morrill Acts of 1862 and 1890 and they have an array of functions involving multiple stakeholders. They have been used to provide instruction on- and off-campus, provide world-class research, and promote outreach and services for the public good (Kellogg Commission, 1999). University faculty lead research (Tobin et al., 2017) and the cooperative extension system make the knowledge available to the community to address their needs (Collins, 2012; Dwyer et al., 2017). The term “cooperative” denotes the partnership between federal, state, and county governments in support

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of the system (McDowell, 2003). Historically, CES have been used to provide programs that allow connections between communities or community members and university faculty that provide knowledge from research (Dwyer et al., 2017). This system was established during the time when the United States needed agricultural advancements to address inefficiency and lack of productivity. Cooperative extensions were established to meet these needs (Dwyer et al., 2017).

Cooperative extensions were initially focused on the local community and stakeholders, but modern technology has facilitated their evolution and progression into international partnerships that allow a wider reach for knowledge sharing (Gornish & Roche, 2018). Extension specialists and educators apply the research findings to programs for the public good (Tobin et al., 2017). Through these functions, land-grant universities have benefited the public in three major ways (McDowell, 2003). First, they have made degrees and education accessible to working-class individuals. Second, no subject area was considered beneath scope of their scholarship agendas. Third, they have generated new knowledge and made it accessible to people who were previously unqualified or unwilling to be in the educational setting (McDowell, 2003). These functions and benefits are taken into consideration for the present study's orienting framework.

Another key component of the orienting framework is university engagement. Carnegie Foundation refers to it as the collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. Engagement involves the concept of being a "servant university" with the end goal of providing services to the nation's people for their benefit (Gavazzi, 2020). The rationale for engagement is to extend outreach and

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services towards more sympathetic and effective involvement with all communities through the redesign of teaching, research, extension, and service functions of institutions (Kellogg Commission, 1999).

The concepts of globalization and internationalization are also orienting this study. In the field of education, globalization has been defined as trends involving the flow of economy, technology, people, knowledge, and values that have cross-national connotations, transcending national borders (Altbach, 2002; Hudzik, 2011; Knight, 2004). The term internationalization became popular in the 1990s in place of international education (Jones & de Wit, 2013). Internationalization is defined as the policies and processes that integrate international or global elements into institutions' delivery, functions, and purpose (Altbach, 2002; Knight, 2004). Hudzik (2011) differentiated the two concepts in terms of globalization representing the world order while internationalization representing institutional efforts. Motivations to promote internationalization and globalization include factors such as profit or revenue; demand absorption; educational benefits for students; social and political integration; strategic alliances; professional development; reputation; research; and knowledge production (Johnstone & Proctor, 2017). Considering these distinctions, I use internationalization as institutional efforts while accounting for globalization as the world order (Tight, 2019).

Pirogan & Katzenbach (2017) suggest that the increasing influence and communications capacity of the digital realm is creating a networked society, which shift not only geographical regions but identities. Castells said that organized networks are becoming more interspersed and disconnected in a physical sense (Pirogan & Katzenbach, 2017), while building identities relies on digital tools. This type of world 'rearrangement' is closely linked to globalization (SOAS, 2022). In addition to this, the networked society critically entails social media, a popular

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communication tool used to disperse and disseminate global-local information. As Zhang et al (2010) note, some have criticized the internet for destroying the precedence of face-to-face communication.

The networked society is a necessary component of the knowledge economy. As the value of knowledge derives from research, social networks can increase value by adding nodes (Castells, 2000). We no longer require territorial contiguity for knowledge sharing and related activity. Castells thus predicted “the demise of the sovereign nation-state” (Castells, 2000, p. 694), where digital networks and knowledge sharing quite literally contribute to the creation of a smaller world, shrinking in scope and geographical distance. The knowledge economy emerges because of increased technological capacity. Modern economies now value skills like working with models and innovating. The IT and ICT industries are, as a direct result of this, highly in demand.

In the past, a large proportion of labor was manual, but changes are driving increases in demand for careers in fields like AI (artificial intelligence), research and industry/business innovation. For instance, it is now more important for a business to know how to sustain its competitive advantage. STEM jobs in biology, chemistry and engineering are also increasing (CFI, 2022). The OECD (2001) suggests that businesses are looking just as much for technical skills as work competencies.

Conditions of increased technological capacity and intercultural/international communication, along with the blurring of national boundaries and erosion of the sovereign nation state, have contributed to something known as the global village. Marshall McLuhan described the global village as early as the 1960s, suggesting worlds were more connected than ever, and information traveled rapidly. “Information pours upon us, instantaneously and

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continuously. As soon as information is acquired, it is very rapidly replaced by still newer information” (Attwood, 2015). Today, what we could watch on the nightly news is now readily accessible on YouTube. Effectively, the global village is a conceptual apparatus to help us understand the world’s ‘shrinking’, particularly into compact, cosmopolitan urban regions.

This new reordering requires organizational change, particularly in post-secondary institutions, but also in a broader sense. Lamm et al (2018) note lower levels of university activity are more amenable to change, likely because they present malleable opportunities. The emergence of the knowledge economy means universities must seek to reorganize how they fundamentally operate. It can include more provisions for international students, a focus on fostering intercultural understanding and emphasizing the importance of democratic free speech. Universities adapt to the networked society by offering digital opportunities and by engaging in global or globally oriented research.

Organizational change can be difficult, and might mean changing an entire infrastructure, its technologies and the way it operates (Stobierski, 2020). As societies become more geographically distanced because of technological communication, there is greater capacity for research, diversity learning and innovation. Post-secondary institutions will learn to re-frame their prerogatives to fully participate in the globalized, 21st century economy, which includes loosely knit, digital marketplaces that may not have much geographic proximity to each other. Relationship building becomes seminal to sustained organizational change (Lamm et al, 2018).

Significance of the Study

Existing scholars that have addressed land-grants universities’ engagement with the public have tended to divide the phenomenon of engagement between local (see Lyons et al., 2018) and global (see Payumo et al., 2019), creating possibly a contextual dichotomy that

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translates in siloed research. There is a literature gap, however, on the relationship between local engagement and global engagement, as well as the institutionalization of this interaction. In an effort to unveil an engagement model that conciliates both local and global context, I examine three exemplary cases of 1862 land-grant universities that embrace both local and global engagement.

The proposed study is unique, in that it deconstructs the dichotomy of local versus global and attempts to advance an engagement model for land-grant universities in which local development and international advancement are not competing values, but rather integrated and cooperative processes. This new engagement model is relevant to the administrators of land-grant colleges and universities, as well as to associations and centers for the study of land-grant education. The findings of this research may be instrumental in guiding an organizational change that aligns institutional mission, environmental conditions, policies, and outcomes while optimizing resources. Furthermore, the findings of this study may assist land-grant institutions to improve their collaborative efforts for sharing best practices with regard to engagement at the local and global levels. As a result of the proposed study, I aim to increase land-grant universities' networking opportunities and strengthen their land-grant identity that is relevant in the 21st century context.

Summary

Previous researchers who have studied land-grant universities engagement have dichotomized this process at the local and global levels. There is a literature gap on the relationship between local engagement and global engagement as well as the institutionalization of this interaction in land-grant universities. The purpose of the proposed study is to examine the

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institutionalization of global and local engagement processes and their interaction in the land-grant university of the 21st century.

The present study is framed using the concept of interface, which refers to the place where the interaction between different systems or processes converge, forming a meaningful relationship with each other. The principles of land-grant extension, globalization, and internationalization will serve as the context for the study.

The significance of this study is that the findings can encourage deep organizational change that aligns institutional mission, environmental conditions, policies, and outcomes while optimizing resources in land-grant universities. The illumination of the process involved and the need for integration of both local and global engagement in land-grant universities are also potential benefits of this study. In Chapter 2, I present the findings of the literature review.

CHAPTER 2: LITERATURE REVIEW

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The research questions that guide this study involve the organizational changes of land-grant institutions in terms of engagement, collaborations, and competition in the era of globalization. As such, I explored the existing body of literature regarding the history, development, and current state of land-grant institutions, as well as higher education internationalization and globalization. As it is discussed in the following sections, institutional local and global developments have occurred since the enactment of the Morrill Act, which first established land-grant universities (Kellogg Commission, 1999; McDowell, 2003). A synthesis of the literature findings concludes the chapter.

Review of Relevant Literature

In this section, the topics of discussion are divided into two main dimensions: on one hand, outreach and engagement of land-grant colleges; and on the other hand, globalization and internationalization of higher education. These dimensions are further divided into the following themes: antecedents of agricultural education and cooperative extension; organization of cooperative extension; university engagement and public good; benefits and rationales of internationalization; internationalized programs and curricula; and barriers and issues to internationalization. Historical accounts and empirical studies are presented in the corresponding themes to help guide an understanding of the present study.

Outreach and Engagement of Land-Grant Colleges

Land-grant colleges and universities were created as a response to social and economic developments in the United States (Cordie, 2019). Through governmental acts and legislation beginning with the Morrill Act in 1862, various institutions across the United States were granted federal benefits to meet the social and economic needs brought by these social and economic changes (Stein, 2017). These institutions have since produced practical solutions to

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what were then considered the largest problems in the nation, which were agricultural and mechanical fields (Cordie, 2019). Solutions mainly came in the form of education, research, and service (Kellogg Commission, 1999). As society continues to develop, land-grant universities are slated to work with communities as partners to holistically understand and address their needs (Gee, 2010). Land-grant institutions may contribute to the public good through cooperative extensions and university engagement. Next, I examine the history and current state of land-grant institutions, as well as their cooperative extensions and engagement.

Antecedents of Agricultural Education and Cooperative Extension

The establishment of land-grant institutions occurred at a time of social, political, and economic unrest with America's Civil War and the Industrial Revolution at play (Goldstein et al., 2019). Senator Justin Morrill from Vermont brought forth an idea that elevating and making applied science education more accessible to underserved populations would help to improve agricultural and industrial performance, which would then help the nation's state and economy (Sorber, 2018). Land-grant institutions were thus established with the Morrill Act of 1862 to provide financial support for each state (Ostrom, 2020). Their mission was mainly to make relevant scientific knowledge accessible and accountable to local needs (Ostrom, 2020).

Even before the Morrill Act of 1862, public land-grants had already been passed for educational institutions; however, the Morrill Act was monumental in allowing 30,000 acres of land per each senator and house representative to be provided to the states for establishing at least one institution specializing in agriculture and mechanical arts (Stein, 2017). The Morrill Act enabled land-grant institutions to serve more than just the elite few. These institutions served people who previously worked on farms, machine shops, or factories, and thus, land-grant universities were considered as people's universities (McDowell, 2003). In the midst of the Civil

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War, President Lincoln's approval of the Morrill Act of 1862 promoted peace, prosperity, and developments through populist education (Gee, 2010). The state of Iowa was the first to accept these provisions, and Michigan was the first to have an agricultural college (Myers, 2020). The Morrill Act of 1862 was a solid foundation that allowed further legislative action during the succeeding centuries regarding higher education (Simon, 2009).

Following the Morrill Act of 1862, the Hatch Act of 1887 enabled the establishment of agricultural experiment stations (Barham et al., 2020; Sorber, 2018). While the Morrill Act of 1862 focused on teaching, the Hatch Act of 1887 focused on research (Barham et al., 2020). The Hatch Act represented an unprecedented event in which agricultural research received direct federal funding (Andrews, 2020). The funds comprised \$15,000 USD per year for research that was conducted within the experiment stations (Sorber, 2018). Following this Act, significant increases in patenting occurred. Andrews (2020) stated that funding from the Hatch Act complemented those from the Morrill Act, producing optimal results in both teaching and research.

The next significant antecedent for land-grant universities is the second Morrill Act in 1890 (Collins, 2012; Ostrom, 2020). Thirty-eight years after the first Morrill Act, the second Morrill Act focused on providing access to education for underserved populations, starting with the establishment of institutions in the South for students of color (Collins, 2012; Ostrom, 2020). Although racial segregation within higher education was already addressed in the first Morrill Act, it was still legally practiced in the Southern areas of the United States (Ehrlich et al., 2018). The Morrill Act of 1890 provided these states with a compromise wherein institutions should provide evidence that they were not admitting students based on race, or the state should establish another land-grant institution specifically for persons of color (Ehrlich et al., 2018).

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Since then, several Historically Black Colleges and Universities (HBCUs) have been established for this underserved population (Collins, 2012; Ostrom, 2020). The improved access to higher education from the Morrill Act of 1890 rapidly developed U.S. higher education, placing the United States in a renowned position globally (Ehrlich et al., 2018).

The implementation of the legislations discussed above was not without criticism. Sorber (2018), for one, indicated that Senator Justin Morrill did not really have the underserved people in mind when he proposed these acts. Sorber (2018) noted that Morrill's speeches and letters made no indication of egalitarian reasons for the acts, as he was simply focused on the business. Land-grant HBCUs were thought to aggravate rather than resolve the racial segregation issues (Goldstein et al., 2019). In addition, Stein (2017) brought attention to the colonial effect of land-grant institutions, claiming indigenous lands, and reducing the sovereignty of indigenous peoples. Issues such as these persist within the literature, exhibiting how the land-grant institutions and related legislations are not necessarily without flaw. These criticisms are important considerations to note when examining the body of literature regarding land-grant institutions.

Nonetheless, the federal funding of land-grant institutions through the legislative acts discussed above represented a revolutionary occurrence in the higher education system. Benefits from these land-grants included increased accessibility to classrooms and degrees for the working class, the inclusion of any subject area in its scholarship agenda, and the opportunity for new knowledge provided to people who previously did not qualify and were willing to be in a classroom (McDowell, 2003). Land-grant institutions became facilities for science, technology, engineering, and farming agents, which extended the traditional functions of higher education as places of ministry, medicine, and law (Collins, 2012).

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Further movement with the Smith-Lever Act of 1914 enabled the land-grant universities to go beyond the institutions and serve the public through cooperative extensions (Collins, 2012; Ostrom, 2020). This Act enabled the institutions to take education to rural areas, to communities, and to people who can prescribe societal problems for the land-grant institutions to solve. During those times, much of these problems involved agricultural needs, and land-grant institutions were slated to help in applying scientific models and theories to farming to improve agricultural productivity (Collins, 2012).

More recently, the Kellogg Commission advanced the idea to reform the land-grant institutions that they deemed to be out-of-touch and unresponsive to contemporary societal needs (Myers, 2020). There has been a growing perception that higher education institutions in the United States were focusing too much on academic output and ignoring aspects of quality teaching and community engagement. As such, the 1999 report by the Kellogg Commission emphasized university engagement and the university's role to become partners with the community surrounding them (McDowell, 2003). The type of engagement proposed by the Kellogg Commission extended beyond outreach, extensions, and service that were then being implemented, towards the more egalitarian concept of engagement (McDowell, 2003). This movement by the Kellogg Commission represented a milestone for the validation of institution-community relationships (Gavazzi & Gee, 2018). These legislative acts and movements have formed and reformed the land-grant institutions to become multipurpose institutions that served the nation and the economy (Sorber, 2018). As such, service learning, civic participation, and engaged scholarship were highlighted in higher education (Campbell & Pendleton, 2019). These antecedents are the backdrop to the current state of land-grant universities in the United States.

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Organization of Cooperative Extension

Cooperative extensions are one of the major ways in which land-grant institutions developed through partnerships of the county, state, and federal governments (Collins, 2012). Together with teaching and research, extension is a function within the land-grant model that focuses on knowledge production and availability to the community (Collins, 2012). For more than 100 years, cooperative extensions have enabled stakeholder-driven research and services mostly in the fields of agriculture, nutrition, youth development, natural resources, and economics (Gornish & Roche, 2018). As aforementioned, the Smith-Lever Act of 1914 was instrumental in establishing cooperative extensions and providing more funds for land-grant institutions to use in serving their community (Ostrom, 2020). Extensions initially began by distributing newsletters, digests, pamphlets, and other documents to disseminate research-based information (Level & Paster, 2019). Cooperative extensions also provided demonstrations of applied research outside the universities particularly regarding farming (Coppess et al., 2018). Cooperative extensions thus served the needs of communities in the past to improve farming and agriculture.

One key factor in the organization of cooperative extensions is the reliance on stakeholders. Stakeholders outside of the institutions represent valuable partners that provided external insights into the research (Kopp, 2019). Cooperative extensions relied on stakeholders to identify problems and needs to prioritize (Gornish & Roche, 2018). Managing relationships with stakeholders is important for cooperative extensions especially in terms of public support (Elliot-Engel et al., 2020). As such, communication with stakeholders is a vital factor for its success (Elliot-Engel et al., 2020). In modern times, extensions contact stakeholders through mail, online, listening sessions, field days, and extension agents or specialists (Gornish & Roche,

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2018). Partnerships with extensions have grown to include agencies, private institutions, non-profit organizations, and special interest groups. Modern technology has also allowed cooperative extensions to reach international partners to allow a wider reach for knowledge sharing (Gornish & Roche, 2018). It appears that external stakeholders remained to be important partners throughout the development of cooperative extensions.

Previously, stakeholders were largely involved in the field of agriculture. Coppess et al. (2018) and Ostrom (2020) estimated that 30% to 40% of the U.S. population during the inception of cooperative extensions were employed in farming and agricultural endeavors, and that most of them lived in rural areas. For this reason, extensions research has been greatly driven by subject areas such as crop science, dairy or animal science, soil science, and horticulture (Lee & Graff, 2017). In recent decades, there appeared to be a shift in terms of societal needs, with now only 2% or less of the U.S. population employed in farming and a large majority living in urban areas (Coppess et al., 2018; Ostrom, 2020). As societal needs evolved, however, land-grant institutions and extensions failed to adapt, and research and services remained to be principally agricultural (McDowell, 2003). Level and Paster (2019) argued that this preservation of agricultural heritage was important; however, contemporary needs and information need to be addressed by cooperative extensions as well.

The continued focus on agriculture has brought to question the relevance of cooperative extensions (Ostrom, 2020). The Kellogg Commission (1999) emphasized the need to adapt to contemporary societal elements while still retaining the mission of cooperative extensions to serve society. External organizations, such as the American Society of Animal Science (ASAS) have likewise indicated a need for national conversations regarding how extensions could expand their research and seek new partnerships with private organizations to support new fields

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(Gavazzi, 2020). Coppess et al. (2018) noted that identifying relevant fields may be difficult in the contemporary era swamped with information and technological advancements. As land-grant universities and extensions move towards this new era, the foundational concepts of demonstration should continue to be adopted in the expansion to new fields (Coppess et al., 2018).

In line with the criticisms that land-grant universities and extensions have been out of touch with contemporary reality, there have also been complaints that they have strayed from their original mission of making education openly accessible and have instead taken on an elitist role (Collins, 2012). Critics have noted that research and service have focused more on agribusiness rather than on the working classes (Collins, 2012). Pressures to apply innovative technologies have taken over extension priorities rather than the potential benefits of the community and underserved populations (Taylor & Zhang, 2019). Ostrom (2020) argued that land-grant institutions and extensions have always had an elitist nature as much of the land provided to these institutions were appropriated from native tribes. There have been further complaints that extension research can be slow and too focused on disciplinary needs and peer review-based standards that they fail to meet the needs of the community in a timely manner (Kellogg Commission, 1999). Considering these criticisms, it appears that cooperative extensions may require restructuring or reorganization to fulfill their original purpose of serving the community.

Recent efforts have been made to make cooperative extensions more egalitarian. In Payumo et al.'s (2019) case study, they noted how the land-grant university Michigan State University (MSU) has had a long-term relationship with Africa since the 1960s. Although their relationships with Africa had been mainly unidirectional from the beginning, more recent efforts

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from the 1990s have made their partnership more egalitarian, with international collaborations increasing from 57% in the year 2006 to 84% in the year 2015 (Payumo et al., 2019). This shift to internationalization can be contextualized to the larger trend of different sovereign countries becoming more interdependent with each other in terms of knowledge creation and sharing, recognizing the mutual benefit of such practices (Collins, 2012).

Burkhart-Kriesel et al. (2019) likewise acknowledged the new hybrid model of cooperative extensions in which learners' tacit knowledge is part of the reciprocal knowledge transfer rather than the unidirectional transfer from so-called experts to the learner. This hybrid model recognizes the value of community development practices and norms, which may sometimes be in conflict with the assumptions and practices held by land-grant institutions and extensions (Campbell & Pendleton, 2019). As such, more contemporary models of cooperative extensions have moved away from the concept of "helping" the community towards the idea of "engaging" with the community (Campbell & Pendleton, 2019). The egalitarian approach to cooperative extensions may not yet be practiced in all institutions, but it does present a prospective shift in the organization of cooperative extensions that can help to meet community needs more effectively.

As land-grant institutions and extensions begin to recognize more pressing contemporary issues of the community, more disciplines or fields of study may be involved other than agriculture. One such issue in the 21st century is health and wellness, which has been suggested as a potential subject area for contemporary cooperative extensions (Dwyer et al., 2017). In their article, Dwyer et al. drew from existing models of health extension in the United States as well as Michigan State University's model of health extension to promote the development of new models for land-grant universities in partnership with community-based medical schools or

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academic health centers. The MSU extension was described as an organization with scholars and professionals in agriculture, health, youth development, and community development, wherein multidirectional interactions occurred among researchers, extension educators, and community health partners. The key strategies of the MSU extension involved establishing partnerships, developing extension educators for research, increasing referrals to primary care and to the MSU extension health programs, and finding innovative funding opportunities. Speed meetings, which involved 9-minute presentations of health programming to allow research faculty to see if their research interests aligned with such programs. A 5-hour workshop was conducted to show the process and responsible conduct of research. Partnerships with healthcare providers was also a strategy that allowed them to refer patients to extension programs (Dwyer et al., 2017). These strategies by the MSU ensure that their cooperative extensions align with the community's healthcare needs.

University Engagement and Public Good

As presented above, a major focus of contemporary institutions is their engagement with the public, which refers to the general population and the society at large. Engagement involves the concept of being a “servant university,” wherein the main framework and end goal is the most optimal benefit for the nation's people (Gavazzi, 2020). The idea behind engagement is to extend beyond outreach and service to be more sympathetically and effectively involved with communities of all types through redesigning the teaching, research, extension, and service functions of the institutions (Kellogg Commission, 1999). Communities can have various scopes and may extend beyond national borders. With modern technological advancements, institutions and extensions can make blog posts or webcasts, among others, to have a wider reach with more communities (Taylor & Zhang, 2019). As McDowell (2003) reiterated in his article, “unless the

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universities engage the world more fully, they will not be able to contribute to the renewing of culture, provide an accurate interpretation of civilizations past, or provide relevant understandings of the human condition” (p. 32). As such university engagement and public good may involve local, state, national, or even global pursuits.

Several engagement projects have been explored in the literature and will be discussed in this sub-section. The partnership between MSU and Africa described by Payumo et al. (2019) extends beyond collaborative research. Currently, MSU is a leader in the field of African studies, with several Africa-related courses, study abroad programs in 12 African countries, and 19 African language courses (Payumo et al., 2019). Jamison and Madden (2020) interviewed 14 African alumni from MSU to explore the alumni’s lived experiences regarding MSU’s role in strengthening social, civic, and political engagement in students. The African alumni indicated that MSU empowered students as researchers, expanded their networks of peers and collaborators, and improved students’ confidence through their programs. The majority of the alumni had expressed interest in careers that helped others such as public service, and some had expressed desires to engage with their home countries. The authors stated that higher education institutions and especially land-grant institutions are vital tools for developing capacities for civic engagement on an international scale (Jamison & Madden, 2020).

Another way of engaging with the community is through addressing global issues. For instance, Tobin et al. (2017) explored the obstacles and priorities of researchers and extension staff through an online survey regarding the global issue of climate change. Sixteen land-grant universities were included in this study wherein the sample consisted of research faculty, agriculture extension specialists who provide planning and training services, agriculture extension educators, and administrators. Findings indicated that the lack of sufficient information

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regarding local needs was the most significant barrier to climate change programming. This was followed by the lack of specific adaptation practices and then the inadequacy of specific mitigation practices, both of which they could have shared with their audiences. In terms of individual barriers, target audiences' perceptions that changing their routines would be too costly was found to be the most challenging barrier, followed by the actual costs of change, and then the lack of climate change awareness. Participants ranked securing funding for applied research as the most important future priority. Tobin et al. also found minor geographical differences in terms of certain priorities, such as the southern subregion of the United States' focus on extension educators' training and development. They noted that these differences optimally addressed the geographical differences regarding barriers (Tobin et al., 2017). While land-grant institutions could serve as agents of change for global issues such as climate change, it appears that more work is needed to overcome the barriers and properly engage with the public.

As aforementioned, health and wellness are important issues for contemporary society. Land-grant institutions could thus engage with the public through health programs, such as the workshops and partnerships cited in the study of Dwyer et al. (2017). More recently, institutions such as the University of Minnesota have launched COVID-19 testing programs in their campuses and provided free at-home saliva tests to their students, faculty, and staff (COVID-19 Testing, 2020). The Colorado State University, another land-grant institution, has released a similar four-phase plan for their community, including immediate, short-term, mid-term, and long-term plans regarding the COVID-19 pandemic (McConnell, 2020). The plans assess best, middle, and worst-case scenarios regarding university priorities, including engagement, extension continuity, and recovery. Although specific details were not included, the plans represented the University's response and alignment with their land-grant mission of prioritizing

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the needs of their community (McConnell, 2020). Land-grant institutions have the potential to engage the community in various ways to improve their health and wellness.

Other than direct medical engagement, land-grant institutions may also initiate alternative programs to engage with the community throughout this time of pandemic. Land-grant institutions could assist in online wellness projects e.g. online fitness and recreational projects for the elderly (Son et al., 2020). These programs could help vulnerable populations such as the elderly develop their resistance while maintaining social connections during the pandemic (Son et al., 2020). Institutions could also assist with communities' food systems problems (Jepsen et al., 2020). The Ohio State University (OSU) assembled a task force with 25 faculty members who surveyed their fellow faculty and staff regarding their observations in terms of community needs related to food systems at the time of the COVID-19 pandemic, as well as any ideas for how to overcome these issues. As farmers struggled with shutdowns and reductions in production, as well as cancelled training sessions, the OSU faculty sought ways to overcome these issues e.g. as researching sanitation procedures, providing user-friendly personal protective equipment (PPE), and opening channels for accessing products. The faculty reached the community through virtual coffee shops, online office hours, factsheets, and online education (Jepsen et al., 2020). These programs displayed how land-grant institutions could continue to engage with the community in different ways amidst the new circumstances brought by the COVID-19 pandemic.

In keeping up with contemporary needs and issues, land-grant universities also engage with various industries to promote commercial innovations (Lee & Graff, 2017). Lee and Graff indicated that institutions' commercialization complemented their academic engagement as they helped with faculty research funding. In a large-scale survey study, Barham et al. (2020) studied

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the academic engagement, academic commercialization, and traditional academic scholarship of faculty members within U.S. land-grant universities in 2005 and in 2015. Survey data from 881 scientists in 2005 and 598 scientists in 2015 revealed that academic engagement was pursued more than academic commercialization, which only comprised 2% to 3% of faculty activity in both 2005 and 2015, presumably because few scientific breakthroughs were considered worthy of a patent. Sponsored research was found to generate more funds than commercialization at a ratio of 15:1; however, the main source of funds was public funding (Barham et al., 2020).

On the contrary, Akhundjanov et al. (2017) explored cases of horticultural product commercialization led by land-grant universities, finding them to be significant sources of funding. Both the University of Minnesota and Cornell University had developed licensing and patenting schemes for new varieties of apples by growers in their regions. Akhundjanov et al. explained that fixed fee contracts and per-box royalty contracts were the most optimal schemes for commercialization. While commercialization may have its advantages and disadvantages, it remains a viable option for university engagement.

Globalization and Internationalization of Higher Education

Nations have been growing more interdependent in recent years by sharing ideas, technologies, and businesses. Castells (2000) contended that the world has entered a new society with a new economy brought about by the information technology revolution, the socioeconomic restructuring of statism and capitalism, and cultural social movements within the United States and Western Europe. Castells claimed that current sovereign nation-states would be transformed to take part in a shared sovereignty, as in the case of the European Union, which they identified as a *network society*. The advancement of this society would require the collaboration of theorizing, sociological imagination, and computational literacy (Castells, 2000). Hence,

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educational efforts are being made to keep up with the trends of internationalization and globalization (Altbach, 2002). Higher education faces the specific challenges of preparing students for the global workforce and for promoting global agendas (Altbach, 2002).

In this section, I cover discussions of the literature surrounding higher education and land-grant institutions' roles in globalization and internationalization. In the field of education, globalization has been defined as trends involving the flow of economy, technology, people, knowledge, and values that have cross-national connotations, transcending national borders (Altbach, 2002; Hudzik, 2011; Knight, 2004). Alternatively, internationalization was defined as policies and processes that integrate international or global elements into institutions' delivery, functions, and purpose (Altbach, 2002; Knight, 2004). Hudzik (2011) expanded on the difference between the two terms by noting how globalization represents the world order while internationalization represents institutional efforts. Further distinctions between the two terms showed how internationalization focused on cross-national flows, while globalization represented the aggregate of international developments (Tight, 2019). Although the two terms have been used interchangeably at times, there appears to be a common agreement in the field of higher education that globalization is "a set of forces," while internationalization is the "approach or response of policymakers... to underlying trends and opportunities" (Tight, 2019, p. 4). This aligns with Hudzik's (2011) assertion that internationalization refers to institutional efforts, while globalization refers to the world order.

Benefits and Rationales of Internationalization

Despite the inconsistencies in definitions, globalization and internationalization have been the focus of higher education institutions as they sought to keep up with trends of global competence (Altbach, 2002; Castells, 2000; Hudzik, 2011; Knight, 2004). The Kellogg

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Commission (1999) noted that the open market, the open economies, and various global issues called for a global frame for research. Recently, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) has placed globalization as a top priority for higher education (Li, 2018). Some researchers have noted, however, that internationalization may have already been an element of education for centuries (Balci et al., 2020; de Wit & Altbach, 2020). In particular, educational mobility within Eurasia through the Silk Road in the Middle Ages was noted to provide valuable information exchange among the areas of China, Mesopotamia, India, Greece, and Egypt (Balci et al., 2020). The concept of a shared language in education across borders was also found in the Latin language during the medieval era (de Wit & Altbach, 2020). Those internationalized efforts led to knowledge sharing in the fields of mathematics, science, literature, and philosophy (Balci et al., 2020). As these basic educational concepts have been shared between nations, it appears that historical efforts of internationalization have had at least some effects in contemporary education.

Despite the benefits reaped from shared knowledge in the Middle Ages, the rise of nationalism and national education systems in the 18th and 19th century have led to a significant reduction in internationalization (Altbach & de Wit, 2017; Balci et al., 2020; de Wit, 2013). It was during this era of nationalism that universities and colleges began to be established (Altbach & de Wit, 2017). Therefore, these institutions had more nationalistic roots and internationalization may not be constitutionally prioritized (de Wit, 2013). During this time, institutions had adopted national languages and reduced international efforts to bring more attention to national priorities (Altbach & de Wit, 2017). The reemergence of internationalization in education began in the wake of the second World War, with the goal of developing mutual understanding between nations (Altbach & de Wit, 2017). The establishment of the United

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Nations (UN) and UNESCO were instrumental in the initiatives for internationalization (Tarc, 2019). Throughout the 20th century, the main rationale behind international education had been to foster international understanding (Tarc, 2019).

Although the efforts during the 20th century represented a valuable initial step, the concept of international education was still underdeveloped (Knight, 2004). Institutions merely put together a set of activities with a trace of international aspects (Knight, 2004). The term *internationalization* also only became popular in the 1990s in place of *international education* (Jones & de Wit, 2013). Developments in the 21st century point to a shift towards a knowledge economy wherein knowledge and education are considered assets (Collins, 2012). In this knowledge economy, higher education institutions aimed to increase their research capacities to keep up with other nations (Collins, 2012). Notably, an increase in internationalization research by Europeans, Australians, and Canadians were observed since the late 1990s, along with a moderate increase in research by South Africa, China, Japan, Mexico, and South Korea; however, other nations from Africa, Asia, South America, and Eastern Europe lag in terms of research (Bedenlier et al., 2017). Institutions aim to extend their global reach and establish partnerships with other institutions from other nations as a way to establish themselves in this new knowledge economy (Altbach, 2002).

Considering these developments through time, contemporary higher education institutions, and especially land-grant institutions, are motivated by various factors and forces to promote internationalization. Institutions in this era of globalization seek to be considered *world class*; however, there have been questions regarding what can be considered world class, as well as whether the criteria should encompass more holistic, cross-disciplinary, and transversal factors (Wihlborg & Robson, 2018). Institutions may thus turn to other motivators for their

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internationalization. Motivations to promote globalization and internationalization can vary from academic, socio-cultural, political, and local or national reasons (Hudzik, 2011). More specifically, motivations may include profit or revenue, demand absorption, educational benefits for students, social and political integration, strategic alliances, professional development, reputation, research, and knowledge production (Johnstone & Proctor, 2017). Fischer and Green (2018) indicated that among all the motivators, economic benefits appeared to be the most salient.

Faculty comprises a large part of higher education institutions. Researchers have thus examined motivations and rationales of faculty for participating in their institutions' internationalization efforts. For example, Nyangau (2018) conducted an exploratory qualitative study on 15 faculty members working in a college in the United States, seven of which were from East Asia, Africa, or Europe. Facilitating and enhancing student learning was the most frequently cited motivation for participating in internationalization. Faculty members believe that internationalization brought novel and effective strategies and approaches to teaching and learning. Producing *global citizens* was also cited as a motivator as faculty members strove to prepare their students with knowledge, skills, and abilities for the global marketplace. Some motivations included political and social issues such as promoting social justice, while some motivations involved the reputation of the institution or the program. Faculty members also expressed intrinsic rewards from participating in internationalization, expressing feelings of joy, excitement, and fulfillment (Nyangau, 2018). Different motivations were also cited in Wilwohl's (2017) study on teacher educators' internationalization engagement at northeastern U.S. higher education institution. First, the participants expressed personal motivations including their own personal growth and learning. Second, participants cited intrinsic motivations, such as faculty's

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international experiences and desire to include international content into their own classes. Third, extrinsic motivations were cited, including campus leadership, incentives, and resources (Wilwohl, 2017). Based on these findings, the author concluded that faculty members have various rationales and motivations for participating in internationalized activities.

The institution itself may play a major role in faculty motivations. Even just the demographic diversity of students may inspire faculty members to further explore and seek to understand internationalization (Sippel, 2017). Organizational culture may be a vital factor for faculty's engagement in internationalization as institutions encouraged activities such as international publications (Bedenlier, 2017). Faculty members in Danjean's (2017) study indicated that administrative support and individual characteristics were vital motivational factors for faculty participation in internationalization. Similarly, faculty in the Urban et al. (2017) qualitative study regarding University of Georgia's immersion program in Costa Rica and its effects on the faculty indicated that support from their department served as major motivators for internationalization activities while indirect discouragement reduced their motivation. As institutions aim to promote internationalization, these motivators are vital aspects that could boost faculty's participation in their efforts.

A major component of the motivations for internationalization is for the students' benefit (Hudzik, 2011; Nyangau, 2018). Researchers have highlighted the benefit of having lived experiences of the world, of different cultures, and varying perspectives (Gee, 2010; Melati et al., 2020). These experiences allowed students to assume an international mindset in aspects of their lives (Melati et al., 2020), as well as confidence and other life skills (Gee, 2010). Benefits and rationales for internationalization may vary per student. Students from Louisiana State University's college of agriculture expressed various motivations for studying abroad (Roberts et

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al., 2020). Goal-oriented students indicated the intrinsic utility value of studying abroad, adding value to their resume, and promoting personal growth. Socially-oriented students indicated the opportunities to expand their network while studying abroad. Lastly, learning-oriented students cited their curiosity as a main motivator (Roberts et al., 2020). The diverse motivators imply that various types of students may benefit from internationalization activities. Overall, previous researchers have revealed various motivations, rationales, and benefits of internationalization for students, faculty, and institutions.

Existing Programs and Curricula

The rationales and benefits cited previously have inspired various efforts from higher education institutions, including land-grant universities, to internationalize their programs and curricula. Strategies to internationalize may include study abroad programs, internationalized curricula, international faculty, international students, and faculty exchange (Osakwe, 2017). These strategies may entail both formal and informal elements of internationalization in terms of the institution, its stakeholders, and the curriculum (Robson et al., 2017). Brooks et al. (2006) examined the state of international agricultural education within the 1862 land-grant institutions through a website content analysis and a survey of faculty and staff from agriculture and international studies. They found a wide variety of international programs offered in the land-grant institutions. Among these programs, the ones that were administered directly through schools of agriculture in order of frequency included: international visitors (87%), minor programs (74%), foreign agreements of contracts (68%), graduate programs and research (68%), study abroad (65%), international visitor training (55%), international students on campus (42%), international extension programs and certificates (35%), self-designed majors (10%), and associate degrees (10%). Most institutions reported that only 3% to 10% of their undergraduate

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agricultural studies students studied abroad. In terms of specific international agricultural content, 48% of the institutions offered majors with such content, while 52% offered minors and 94% offered courses. An average of 67 international students were enrolled in each institution (Brooks et al., 2006). It appears that early efforts by land-grant institutions to promote internationalization already comprise a myriad of activities and programs.

More recently, Sharif (2019) surveyed 299 faculty, and interviewed 24 faculty in a U.S. public research university. Based on the overall data, common descriptions of internationalization included having international faculty and students, international programs, study abroad, Western-American perspectives, cultural exchanges, and classroom diversity. Notably, only a few participants (10%) cited the university's strategic plan as the source of their awareness of internationalization. A majority of the participants (78%) expressed support for the emphasis of internationalization at the university; however, only a few (34%) expressed support for the strategic plans. Sharif (2019) explained that the faculty had already been previously internationalized but lacked awareness regarding the university's strategic internationalization plans. These findings highlighted the importance of establishing institutional internationalization plans so that all members and stakeholders of the institution would be in accord.

Internationalization involves all of the institution's stakeholders, including its faculty. Developing intercultural and globally-ready educators is an important initial step to a bottom-up approach of internationalization (Robson et al., 2017). Teacher educators in Sippel's (2017) study indicated that although they received support from the international education office and from some international students, they still lacked experience, knowledge, and self-efficacy to help them promote internationalization within their disciplines. Although the teacher educators cited some international experience, most of them involved leisurely activities and lacked

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reflective activities (Sippel, 2017). For faculty to be able to fully imbibe internationalization, some institutions create programs specifically targeted at faculty experiences (Urban et al., 2017). University of Georgia's faculty members undergo a 12-day immersion experience in Costa Rica. From their experiences, faculty members established significant peer relations and were able to bring their experiences back to their classrooms (Urban et al., 2017). Osakwe (2017) also presented a five-phase faculty development program at Albany State University that involved project planning and preworkshop activities, a faculty intensive workshop, instructional implementation of revisions for one semester, faculty symposium regarding results, and the optional phase of outcome publications. Faculty development is a valuable aspect of internationalization.

Faculty research is a major component of land-grant institutions. In Johnstone and Proctor's (2017) case study, the scholars focused on universities that had invested large amounts of financial resources for faculty research. Payumo et al. (2017) examined input-output trends regarding international research collaborations of U.S. public universities from 2008 to 2012. Five universities in different states with different degrees of commitment to research and engagement on an international scale were selected. Payumo et al. conducted three brainstorming sessions with the administrators, heads of international research offices, and relevant staff from the universities. Their findings revealed positive trends in the number of faculty doing international research and grant-seeking activities. There was less indication of research collaboration through co-invention, reflecting less alliances in the number of foreign investors and multinational companies. The authors noted that international faculty, research influence, funding support, time, and academic impact served as significant predictors of increased research collaboration (Payumo et al., 2017).

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Other than faculty development, researchers have presented other strategies to promote internationalization *at home*, which entails on-campus programs and curricula. Not all students may be willing or qualified to study abroad; hence, some institutions have instead focused on bringing international education to their own campuses (Jones & de Wit, 2013). De Wit and Altbach (2020) estimated that only around 20% to 30% of students study abroad in countries like Germany and the Netherlands, around 10% in the United States, and only 1% to 5% in other countries around the world. Historically, the Netherlands and Sweden initiated the internationalization at home approach to create more equitable learning opportunities for nonmobile students (Mudiamu, 2020). One way to develop international skills without travel is through placement in international organizations or organizations that work on a global or international scale (Watkins & Smith, 2018). The students in Watkins and Smith's (2018) study, who underwent such a program, emphasized the useful professional skills they learned from placement. The equity fostered by internationalization at home efforts may serve as a valuable tool for land-grant universities that serve as people's universities.

Internationalization of the curriculum is also an important aspect of internationalization at home. Notably, larger and older universities were more likely to have internationalized curricula (Zapp & Lerch, 2020). Internationalizing the curriculum entails redesigning means and materials for education to achieve outcomes relevant to intercultural and international contexts (Robson et al., 2017). This includes the formal curriculum, which involves the modules and programs, as well as the informal curriculum, which involves support services and supplementary activities (Robson et al., 2017). In line with this, some institutions have placed greater focus on developing graduate attributes that reflect global citizenship, multicultural perspectives, and other elements of international competencies (Jones & de Wit, 2013). Internationalized curricula thus entail a

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holistic institutional culture of internationalization that encompasses formal and informal aspects of education.

As institutions work to prepare students for the global marketplace and global citizenship, certain subject areas may be emphasized. The disciplines of science, technology, engineering, and mathematics (STEM) were deemed especially useful for the global marketplace (Harder, 2015; Main et al., 2019). The STEM disciplines represented the most globalized careers and the standards for global university rankings and economic growth (van der Wende, 2018). In recognition of their universality of their content, STEM subjects were among the earliest fields to divert to the English language (van der Wende, 2018). Harder (2015) indicated that well-established STEM programs represented a way to draw in more international students. Data from 2015 revealed that U.S. institutions awarded 34% of STEM degrees to international students (Main et al., 2019). Higher education institutional leaders have placed much attention to developing their STEM programs.

The development of advanced technologies has also influenced higher education's internationalization. Virtual exchange involves programs are now being implemented in some institutions as an internationalization strategy (Duffy et al., 2020; Mudiamu, 2020). Virtual exchange programs promote international mobility via technological media, rather than physical travel (Mudiamu, 2020). Collaborative Online International Learning (COIL) is a specific virtual exchange approach that promotes cross-cultural awareness that was developed by the State University of New York. With COIL, educators use both synchronous and asynchronous learning environments for instruction. A special feature within COIL is the use of coteaching and the collaboration of at least two classrooms from different locations. Faculty from Mudiamu's (2020) qualitative study found COIL to be highly beneficial for them, the students, and the

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institutions in providing global and internationalized experiences. Duffy et al. (2020) conducted a qualitative study on another virtual exchange program. These researchers paired eight Thai students with nine U.S. students for assignments such as creating a biography of their partners and a joint paper on topics of inclusion. Their findings revealed improvements in terms of cross-cultural communication, awareness and mindfulness, collaboration, critical thinking, and transformative learning. These authors suggested that reflection and debriefing were necessary to process the collaborative experience. Some challenges with the program were identified including lack of faculty experience, lack of support staff, and institutional or bureaucratic barriers; however, the virtual exchange program was generally considered as a success (Duffy et al., 2020). Virtual exchange programs may thus represent another viable tool for internationalization.

The various programs presented here reveal how vast the possibilities for internationalization are. Researchers have argued, however, that the internationalization of higher education cannot be accomplished without integration among the different international universities who may have different definitions and practice (Harder, 2015; Jones & de Wit, 2013; Simon, 2009). Some universities have presented fragmented international aspects and programs that lacked uniformity (Harder, 2015). Scholars and practitioners persist in their own definitions of internationalization ranging from student mobility, admitting international students, internationalizing curricula, international professional development, or students' global competence (Jones & de Wit, 2013); however, without bringing these fragments together through integration, they may not fully represent internationalization (Harder, 2015; Jones & de Wit, 2013). In her essay, Simon (2009) drew insights from her 4 decades worth of experience at MSU to conceptualize the ideal integrated *world grant* that moves university engagement across

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nations' borders. Simon emphasized the multidirectional flow of globalization as knowledge from different places and disciplines are shared. This idea was the basis of the world grant ideal, which recognizes the interconnectedness of issues across nations. Simon then elaborated on the goals of the world grant ideal, including focusing on present- and future-oriented education, as well as continuously producing, disseminating, and applying knowledge for economic development. This author concluded by pushing for an alignment of energies and commitments across institutions to fulfill the world grant ideal (Simon, 2009). Internationalization represents more than just individual programs or curricula, but rather the integration and alignment of their internationalized goals, programs, curricula, and culture.

Barriers and Issues to Internationalization

As higher education internationalization and globalization continue to develop, certain issues and barriers have arisen along with them. One such barrier is the lack of a universal understanding or definition for internationalization for scholars and practitioners to utilize (Knight, 2004). Scholars and practitioners from various institutions and nations carry different perceptions regarding internationalization, which ironically makes international collaborations more difficult (Knight, 2004). The lack of universality has led to the fragmentation of programs and projects regarding internationalization (de Wit & Altbach, 2020). As more researchers push for the integration of internationalization, it would be helpful to have one or more universally accepted frameworks to guide this process (Knight, 2004).

Another prominent issue regarding internationality is inequality or elitism. Researchers have frequently highlighted the issue of Western dominance in internationalization, indicating how a few Western countries hegemonized scientific systems (Altbach, 2002; Stein, 2017). A clear indication of Western dominance is the use of English as a medium for research and

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instruction in many nations (Altbach, 2002; Ehlers-Zavala & Didier, 2017; Shimauchi, 2018). The English language is the first foreign language present in most educational systems and it is considered as the academic language, used in most academic journals around the world (Shimauchi, 2018). This creates a major disadvantage for non-English-speaking nations and their citizens (Altbach, 2002; Shimauchi, 2018). There have been concerns that internationalization has been equated with English-only education, augmenting this disadvantage (Ehlers-Zavala & Didier, 2017). As land-grant universities strive to promote equal education, they must navigate the issue of Western dominance and the use of the English language on non-English-speaking students.

Western dominance also involves a major issue in internationalization, known as the *brain drain*. Brain drain describes the events in which students studied abroad to obtain knowledge but failed to return to their native country to apply this knowledge (Altbach, 2002; Jones & de Wit, 2013). The issue of brain drain was first conceptualized in the 1960s when British engineers and scientists left their native country and migrated to the United States, representing a transfer of human capital (Cattaneo et al., 2018). Interestingly, in the study of international migration in Italy performed by Cattaneo et al., these researchers revealed a curvilinear pattern wherein the best scientific performers and the ones with lower research performances were the most likely to migrate to another country. The brain drain is a significant problem in developing countries and communities, such as the Southern African Development Community (SADC), which reportedly has the highest rate of student mobility globally (Mlambo et al., 2020). Students from these nations study abroad and often do not return to their native country, which plays negatively in terms of knowledge sharing. As promising students are drawn by more developed nations, the effects of brain drain undermine internationalization efforts

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(Mlambo et al., 2020). On the other side of this issue, students and potential students in developed countries have raised concerns that international students may be inordinately prioritized by institutions, leaving minimal slots for them; however, there is yet to be any evidence that this is being practiced in U.S. institutions (Ehlers-Zavala & Didier, 2017).

Issues have been raised regarding the scarcity of faculty training and incentives for internationalization (Brooks et al., 2006). In the study of Brooks et al., the majority (67%) of participants indicated that they had not undergone any training for integrating internationalization themes. A majority (65%) also indicated that there were no incentives from their institutions to encourage them to integrate internationalization into their curricula (Brooks et al., 2006). In line with this, faculty members may also perceive a lack of support and acknowledgements from their institutions regarding their internationalization efforts (Sharif, 2019). Faculty members may not be aware of institutional resources that they may use for their internationalization plans (Sharif, 2019). In order to keep up with globalization, higher education institutions should ensure that their faculty are well-trained, supported, and provided with enough resources to integrate internationalization into their curricula.

Despite the growing importance of internationalization, there is a persistent argument within the literature that land-grant institutions should prioritize local efforts over internationalized ones (Gavazzi & Gee, 2018). Local community engagement has long been a function of land-grant universities, and global research may not suit these local community needs (Gavazzi & Gee, 2018). Scholars have noted that internationalization does not imply the end of local community efforts (Gee, 2010; Simon, 2009). Gee (2010) indicated that engagement should begin in close proximities before expanding outwards throughout the nation and to other nations. Simon (2009) promoted the world-grant ideal, but indicated that one's roots should not be

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forgotten when expanding one's institutional vision. As higher education institutions, particularly land-grant institutions continue to pursue internationalization; local community efforts should concurrently be prioritized.

Specific Major Influences on Internationalization

Although Castells (2000) predicted that the new network society would constitute a new shared sovereignty such as in the case of the European Union, recent events have indicated otherwise. De Wit and Altbach (2020) analyzed the historical developments, definition, key factors, initiatives, trends, and challenges of internationalization. These authors discussed how massification, the shift to global knowledge economy, increased autonomy and academic freedom, the value of reputation and rankings, and the evolving economic and political climates have influenced internationalization. Of note was the recognition of a counter-reaction to internationalization such as immigration bans and antiglobalist protests, along with natural phenomena such as the COVID-19 pandemic that changed the dynamics of higher education. De Wit and Altbach then summarized the evolution of internationalization over the past 3 decades, which involved changes such as more focus on studying abroad, more fragmented policies, elitism, more focus on economic motivations, more focus on rankings, poor alignment of higher educational functions, and more commercialization. De Wit and Altbach called for adaptations to contemporary needs such as internationalization at home to increase its relevance to society. Hsieh (2020) likewise emphasized the events of Brexit and Trump's "America first" platform as representations of moving backwards in terms of internationalization. The barriers and issues presented here reveal how higher education internationalization is still a work-in-progress.

Conclusion

Building on the frameworks of cooperative extension systems and land-grant universities, the literature reviewed in this chapter provided insights regarding land-grant universities and their engagement with the public for the public good. The antecedents of agricultural education and cooperative extensions were discussed. The Morrill Acts of 1862 and 1890, the Hatch Act of 1887, the Smith-Lever Act of 1914, and the establishment of the Kellogg Commission were cited as vital points in history defining land-grant institutions and cooperative extensions (Barham et al., 2020; Collins, 2012; McDowell, 2003; Ostrom, 2020; Sorber, 2018). Through these four legislative acts, land-grant colleges and the Cooperative Extension System were established as revolutionary institutions for higher education with the benefits of increased educational access for the working class, inclusion of any subject area in its scholarship agenda, and opportunities for new knowledge.

Cooperative extensions were cited in the literature as a function within the land-grant model that focuses on knowledge production and availability to the community (Collins, 2012). The organization of cooperative extensions relied heavily on stakeholders, eliciting insights and support, while providing problems that need to be prioritized (Elliot-Engel et al, 2020; Gornish & Roche, 2018). Agriculture was a major problem during the early days of cooperative extensions; hence, several extensions focused on agricultural research and education (Coppess et al., 2018; Ostrom, 2020). Societal needs have shifted, however, prompting calls for extensions to adapt to contemporary issues (Kellogg Commission, 1999). Previous researchers have called for extensions to be more egalitarian and build bidirectional partnerships with the community (Campbell & Pendleton, 2019; Payumo et al., 2019). More contemporary issues were also cited that need to be addressed, such as health-related issues (Dwyer et al., 2017). Engagement was

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cited in the literature as an important aspect of land-grant institutions (Gavazzi, 2020; McDowell, 2003; Taylor & Zhang, 2019). Several engagement projects have been explored in the literature including establishing partner institutions in Africa (Payumo et al., 2019), studying the global issue of climate change (Tobin et al., 2017), addressing health issues (COVID-19 Testing, 2020; Dwyer et al., 2017), and establishing university-industry partnerships (Barham et al., 2020; Lee & Graff, 2017).

Castells's (2000) network society described a new economy powered by information technology. In this society, internationalization and globalization are prioritized (Castells, 2000). Historically, rationales and motivations for internationalization developed and evolved over time (Balci et al., 2020; de Wit & Altbach, 2020). Institutions may be motivated by various forces in promoting globalization and internationalization, including profit, demand absorption, educational benefits for students, political or social integration, strategic partnerships, professional development, reputation development, and research and knowledge production (Hudzik, 2011; Johnstone & Proctor, 2017). Faculty members may be motivated by personal, intrinsic, and extrinsic factors to contribute to internationalization efforts (Nyangau, 2018; Wilwohl, 2017). Students benefit from internationalization activities in various ways (Roberts et al., 2020). The lived experiences of students abroad were cited as valuable sources of confidence and life skills (Gee, 2010; Melati et al., 2020).

Considering these rationales and benefits, several institutional efforts have been cited in the literature regarding internationalization. Common programs included international students, international journal publications, international research, and faculty's international experiences (Sharif, 2019). There has been an increased focus on internationalization at home or internationalizing the curriculum, learning outcomes, and teaching, as well as a greater emphasis

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on global citizenship development and attributes (de Wit & Altbach, 2020; Jones & de Wit, 2013). The fields of STEM have also received greater focus as they were considered global disciplines (Harder, 2015). The development of advanced technologies has allowed more internationalized programs such as the virtual exchange program (Duffy et al., 2020). Integration was deemed necessary to be truly considered an internationalized institution (Charmaz, 2006; de Wit, 2013; Harder, 2015; Jones & de Wit, 2013; Simon, 2009). Barriers and issues to internationalization include a lack of universal understanding of internationalization (Knight, 2004), inequality and elitism (Altbach, 2002; de Wit & Altbach, 2020; Jones & de Wit, 2013), lack of support, resources, and incentives for faculty (Brooks et al., 2006; Sharif, 2019), and certain recent events that spurred nationalist movements (de Wit & Altbach, 2020). With the recent attention given to internationalization, more pressure is placed on land-grant universities to establish integrated strategic plans, rather than fragmented programs (Brooks et al., 2006; de Wit & Altbach, 2020; Hudzik, 2011; Jones & de Wit, 2013; Simon, 2009).

The purpose of the proposed study is to examine the institutionalization of global and local engagement processes in the land-grant university of the 21st century. Grounded theory is the appropriate design for this study, given my focus on the conceptual processes involved in explaining the institutionalization of global and local engagement in land-grant universities. Grounded theory focuses on identifying the key concepts within a process that explain a phenomenon, with the goal of generating theoretical propositions about the relationship of these concepts with each other (Glaser & Strauss, 1967).

As reflected in the research questions, I aim to understand the mechanisms or processes that are involved in explaining the differences and integration of the local and international engagements within the context of the land-grant universities. The grounded theory research

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design provides an appropriate methodology to answer these research questions through the generation of several theoretical propositions based on the hypothesized processes involved in the institutionalization of global and local engagement in land-grant universities (Corbin & Strauss, 1994). In Chapter 3, I describe the methodology used for this study.

CHAPTER 3: METHODOLOGY

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The purpose of this study is to examine the institutionalization of international and local engagement processes of land-grant universities in the global society of the 21st century. In this chapter, I reiterate the overarching problem and research questions. This is followed by a description of my epistemological positionality rooted in social constructionism and the qualitative nature of this inquiry. Next, I describe the grounded theory methodology and explain the procedures that guided data collection and analysis. The chapter concludes with a discussion of trustworthiness and limitations of the study.

Research Problem and Research Questions

The overarching research problem is: How does the land-grant university engage with the public in today's context? The subquestions are as follows:

1. How do land-grant universities engage with the local public in the era of globalization?
2. How do land-grant universities engage with the international public in the era of globalization?
3. How do land-grant universities integrate local and international engagement?
4. How do land-grant universities institutionalize global engagement?

Researcher's Positionality

My epistemology is rooted in social constructionism. This theory posits that knowledge is socially constructed in the interplay between the object of study and the subject who makes meaning. Further, social constructionism indicates that the generation of that meaning occurs within an existent cultural system in a sociohistorical context. As Crotty (1998) explained, "Our culture brings things into view for us and endows them with meaning, and, by the same token, leads us to ignore other things" (p. 54).

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On the epistemological spectrum, constructionism is located between objectivism and subjectivism. Objectivism is the notion that truth and meaning reside in the object of study independently of any consciousness. On the opposite end, subjectivism is the notion that the subject/researcher creates and imposes meaning on the researched object. Under a constructionist epistemology,

All knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human being and their world, and developed and transmitted within an essentially social context. (Crotty, 1998, p. 42)

Constructionist researchers do not discover or create meaning; rather, they construct meaning out of their intentional interaction with the world and objects in the world. Constructionists recognize that there are historical and social perspectives playing a part in the research process. All individuals inherit a system of significant symbols through which they see the world. Those lenses bestowed as a result of one's culture shape one's construction of meaning; this mode of meaning generation is social constructionism.

Social constructionism "emphasizes the hold our culture has on us: it shapes the way in which we see things (even the way in which we feel things!) and gives us a quite definite view of the world" (Crotty, 1998, p. 58). Unlike social constructionism, constructivism emphasizes the instrumental and individualistic facets of knowledge production. While the latter tends to resist the critical spirit, the former tends to foster it.

Because it is possible to come to a different interpretation of the same reality, constructionists do not tag their interpretations as "valid" (Hammersley, 1987) or "true" (Winter, 2000). Rather, constructionists evaluate the research using categories such as "credibility and

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trustworthiness” (Creswell, 1998); “credibility, originality, resonance, and usefulness” (Charmaz, 2006); or “credibility and applicability” (Glaser & Strauss, 1967).

Qualitative Research Design

In order to describe and analyze the “how” and “why” of the engagement processes in the land-grant university, I employed a qualitative inquiry. Qualitative research helps investigators to understand and explain the meaning of social phenomena within socioeconomic and political contexts. In contrast to quantitative research, which deconstructs a phenomenon in order to examine its components, qualitative inquiry can reveal how all the parts work together to form a whole (Merriam, 1998). As Patton (1985) explained,

Qualitative research is an effort to understand situations in their uniqueness as part of a particular context and the interactions there. This understanding is an end in itself so that it is not attempting to predict what may happen in the future necessarily, but to understand the nature of that setting [...] and in the analysis to be able to communicate that faithfully to others who are interested in that setting... The analysis strives for depth of understanding. (p. 1)

In qualitative research also accounts, the researcher often serves as the primary instrument for data collection and analysis. Data are mediated through the human instrument of the researcher, rather than through an inanimate inventory or questionnaire. Merriam (1998) described a series of characteristics that benefit researchers as they collect data and construct meaning: tolerance for ambiguity (i.e., the qualitative research design is less structured and more fluid than quantitative designs); sensitivity (i.e., being highly intuitive to the information being gathered and awareness of any personal biases and their effect on the investigation); and being a good communicator (i.e., emphasizing empathy and establishing rapport with interviewees and

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participants). In this case, my background in education sciences and humanities and my training in ethnographic methods provide a solid foundation for data collection and analysis. Further, my bicultural and bilingual upbringing has fostered keen awareness of diversity, uniqueness, and othering processes. It is fitting for me to be intimately involved with the data, to make meaning, and to communicate a trustworthy interpretation of reality.

Methodology

In Glaser and Strauss's (1967) book *The Discovery of Grounded Theory*, the authors introduced a new research methodology challenging quantitative methods rooted in positivism, the dominant paradigm of inquiry. Glaser and Strauss advocated for developing theories from research grounded in data, rather than deducing testable hypotheses from existing theories and offered systematic strategies for qualitative research practice. These authors joined epistemological critique with practical guidelines for action. Specifically, they intended to construct abstract theoretical explanations of social processes.

Grounded theory is an inductive process of inquiry that moves beyond descriptive studies into the realm of explanatory theoretical frameworks, thus providing abstract, conceptual understandings of the studied phenomena. Strauss and Corbin (1994) noted, "The major difference between this methodology and other approaches to qualitative research is its emphasis upon theory development" (p. 274). The theory developed is usually "substantive," rather than formal or "grand" theory. A substantive theory has a specific referent from everyday situations, which improves its usefulness and applicability to practice. The defining components of grounded theory practice include:

- Simultaneous involvement in data collection and analysis;

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- Constructing analytic codes and categories from data, not from preconceived logically deduced hypotheses;
- Use of the constant comparative method, which involves making comparisons during each stage of the analysis;
- Advancing theory development during each step of data collection and analysis;
- Memo-writing to elaborate categories, specify their properties, define relationships between categories, and identify gaps; and
- Sampling aimed toward theory construction, not for population representativeness (Glaser & Strauss, 1967).

Since the publication of Glaser and Strauss's (1967) seminal piece, the authors have taken somewhat divergent directions. One point of opposition lies in the inquiry sequence—that is, performing the literature review before versus after the analysis (Corbin & Strauss, 1990; Strauss & Corbin, 1994). Another opposition lies on the purpose of the inquiry: discovery (Glaser, 1978) versus verification (Strauss, 1987). Other scholars have moved grounded theory away from the original pragmatist underpinnings (see Bryant, 2002, 2003; Charmaz, 2006; Clarke, 2003, 2005; Seale, 1999).

Charmaz (2006) highlighted that Glaser and Strauss (1967) refer to the discovery of theory as emerging from data separate from the scientific observer. In contrast, Charmaz (2006) posited that neither data nor theories are discovered; rather, researchers are part of the world that they study and the data that they collect. “We construct our grounded theories through our past and present involvements and interactions with people, perspectives, and research practices” (Charmaz, 2006, p. 10). Charmaz explained that any theoretical rendering offers an interpretive

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portrayal of the studied world, not an exact picture of it. Thus, this author's epistemological underpinning aligns with social constructionism.

The purpose of the study is explaining the understudied phenomenon of the interaction between local and international engagement processes of land-grants. This purpose warrants a grounded theory approach because it is an inductive inquiry that moves beyond a thick description of the phenomenon into an explanatory conceptual model of processes. Amongst the various grounded theory schools, I adopted Charmaz's (2006) basic grounded theory guidelines as they best match the epistemological approach of social constructionism.

Sampling Method

The research questions that guide this study warrant the selection of sites which have made a considerable organizational effort to engage with both local and global public. Hence, an intensity sampling method was used to identify and select information-rich cases. Patton (2009) defined an intensity sample as consisting of "information-rich cases that manifest the phenomenon of interest intensely" (p. 171). I anticipated that a sample of three land-grant universities would be adequate to achieve information redundancy (Lincoln & Guba, 1985) and category saturation (Charmaz, 2006).

The criteria to identify information-rich cases and select the research sample were the following:

- 1) The university has received the land-grant status after the Morrill Act of 1862.
- 2) The university has a commitment and established record to local engagement.
- 3) The university has a commitment and has made significant effort to establish international engagement.

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The Carnegie Classification for Community Engagement (CEC) was the proxy to identify sites that have made a considerable organizational effort in regard to local engagement. This classification is relevant to the study because it serves as a marker of success in terms of the engagement of universities with the community. Since the current study focuses on the examination of the institutionalization of global engagement processes in land-grant universities, it is important to select sites that have demonstrated a level of success in terms of community engagement at different levels (i.e., local, national, and international). Hence, the CEC provided a pool of eligible sites that were most useful and credible in addressing the research problem of the study. CEC's classification is not an award given to an institution; but it is an evidence-based documentation of institutional practice for self-assessment and improvement. The community engagement:

describes collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. The purpose of community engagement is the partnership of college and university knowledge and resources with those of the public and private sectors to enrich scholarship, research and creative activity; enhance curriculum, teaching and learning; prepare educated, engaged citizens; strengthen democratic values and civic responsibility; address critical societal issues; and contribute to the public good. (Carnegie, n.d.)

This classification requires institutional participants to invest substantial effort. The CEC opens for application on a 5-year cycle, the most recent of which concluded in 2020.

On the other hand, I used awardees or finalists of the Institutional Award for Global Learning, Research, and Engagement (GLRE) granted by the Association of Public and Land-

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Grant Universities (APLU) to identify sites that have made an explicit organizational commitment to internationalization activities. This award, established in 2017, is open to all APLU member institutions—not systems—and recognizes “public research universities and their leaders who excel in their efforts to drive an inclusive approach to their global engagement, research, and learning, and measure the impact of these efforts” (APLU, n.d).

After applying the intensity-sampling criteria (i.e., to be a land-grant university with CEC and to be a GLRE awardee or a finalist in the absence of an awardee), three institutions were selected: University of California, Davis (UC Davis), The Pennsylvania State University (Penn State), and Michigan State University (MSU). See Table 1 for the sample and Appendix A for a map showing the location of all land-grant universities. UC Davis is the 2020 GLRE Platinum winner; Penn State received the Gold Award in Leadership and Pervasiveness in 2019; and MSU is one of four 2017 GLRE finalists. All three institutions obtained the Community Engagement reclassification in 2015.

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Table 3.1: Intensity Sampling Criteria

University	Land Grant	APLU Institutional Award for Global Learning, Research, and Engagement	Community Engagement Classification
University of California, Davis	Yes	2020 Platinum Winner	2015
The Pennsylvania State University	Yes	2019 Gold Award (Leadership and Pervasiveness)	2015
Michigan State University	Yes	2017 Finalist	2015
University of Minnesota	Yes	2016 Award Winner	2015
The Ohio State University	Yes	2016 Finalist	2015
University of Pittsburgh	--	2020 Gold Award (Global Engagement)	2020
University of South Florida	--	2019 Platinum Winner	2020
Florida International University	--	2019 Gold Award (Inclusivity)	2020
Florida State University	--	2018 Platinum Winner	2020
The University of Washington	--	2017 Finalist	2020
Virginia Commonwealth University	--	2020 Gold Award (Global Learning)	2015

Research Context

The sample Universities include: University of California, Davis (UC Davis), Michigan State University (MSU), and Pennsylvania State University (PSU). Today, all three institutions have become comprehensive research universities. Background information and general insights are given to provide context for the research that was done.

UC Davis

UC Davis was created by an act of the California State Legislature in the year 1905 (UC Davis). It is imperative to note that the land utilized by UC Davis was previously inhabited by the Patwin Native Americans. As the 19th century progressed, many of the Patwins perished from

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disease and consequently migrated from the area (City of Davis). The school, first named the University Farm School, began as an extension of UC Berkeley with more focus dedicated to research and science. In the 20th century, as the town began to develop, UC Davis expanded the breadth of its academic focus.

Since its origins as the University Farm School, UC Davis has grown exponentially. According to the UC Davis Timeline (2022), there were only 77 undergraduate students in 1910, while by 1939, that number drastically increased to 1,107. For the year 2021, UC Davis recorded 40,050 students enrolled (UC Davis).

UC Davis's core values are: community, exploration, integrity, and growth (UC Davis). UC Davis's mission is to, "serve students by aligning resources with opportunities to foster curiosity, engaged citizenship and academic success (UC Davis)." UC Davis is part of the University of California System. Two integral members who are furthering UC Davis's cause are its Chancellor, Gary S. May, who has held the position since 2017 and the Provost and Executive Vice Chancellor Mary Croughan.

The institution's focus on exploration and community from its birth has allowed it to flourish into a top-tier university that is diverse in its disciplines. The university is a tier one research university and has received \$968 million for their research enterprise in 2020-2021. Further, the school achieved 141 records of invention during the 2019-2020 fiscal year. UC Davis is ranked 38th nationally among all universities. In addition, according to the 2021 QS World University Rankings by Subject, UC Davis is ranked 1st in the nation in agriculture and 1st in the nation for diversity, inclusiveness and internationalization (QS).

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Michigan State University

Michigan State was founded on February 12, 1855 in East Lansing, Michigan. Once President Abraham Lincoln signed the Morrill Act in 1862, the university became the model of land-grant institutions across the country. As of September of 2021, Michigan State recorded that it had 49,659 students enrolled. From its 9,065 student freshman class, 4,852 are women and 2,328 are students of color. Michigan State is very large in both land it occupies along with the breadth of academic programs it offers. The university currently offers over 200 academic programs through its 17 colleges. It occupies 5,300 acres and utilizes 17,500 acres in Michigan for agricultural, animal and forestry research (MSU, 2022).

Organizationally, the university is currently led by Dr. Samuel Stanley who has been president of the university since 2019. The provost of the university is Teresa K. Woodruff. She leads the academic programs, research and faculty and student outreach. Michigan State's mission is "to provide education to students to prepare them to be globally engaged citizen leaders, conducting superb research to seek solutions that expand current understanding, and to actively pursue methods of improving individuals' quality of lives." (MSU, 2022)

In Fiscal Year 2020, Michigan State's total research expenditures were \$713.2 million (MSU, 2022). MSU's dedication to research has been recognized nationally for the school is ranked 1st in the nation in Department of Energy Expenditures, 9th in the nation in National Science Foundation expenditures, and 5th among all U.S. universities in the Nature Index which monitors the contribution of primary articles to prestigious scientific journals. In a broader scope, according to the US News & World Report America's Best Colleges (2022), Michigan State University is ranked 83rd in national universities in the United States (US News).

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Pennsylvania State University

Pennsylvania State University is a multi-campus, land-grant, public research university (PSU, n.d.). Its 20 campuses span across the state increasing accessibility for Pennsylvania students. Pennsylvania State had over 2,000 students in attendance around 1950, but today, the university has over 100,000 students enrolled. The university was founded in 1855 as an agricultural college. Pennsylvania was, at the time, a more rural location, less ethnically diverse and with a broader focus on farming. However, when Pennsylvania made Penn State the state's sole land-grant institution in 1863, the University expanded its scope to include research in various disciplines. The university states that as Pennsylvania's land-grant university, "[they] provide unparalleled access to education and public service to support the citizens of the Commonwealth and beyond (PSU, n.d.)."

US News ranks Penn State as the 63rd best school in the nation. Research is paramount with the school's vision stating, "Penn State will be a leader in research, learning, and engagement that facilitates innovation, embraces diversity and sustainability, and inspires achievements that will affect the world in positive and enduring ways (PSU). The school's research is highly funded with total expenditures reaching \$993.1 million in fiscal year 2020-2021." (PSU, 2022) and was ranked 22nd in total expenditures by the National Science Foundation. Further, the school was ranked first in industry sponsored research when compared to all other public Pennsylvanian universities.

The President of PSU is Dr. Neeli Bendapudi who began her tenure on the spring semester of 2022. Prior to Dr. Bendapudi, Dr. Eric J. Barron served as the head of the school. The Executive Vice President and Provost is Dr. Nicholas P. Jones. Dr. Jones possesses the role

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of overseeing all academic units including the various colleges and campuses under the university across the state (PSU).

Data Gathering

The two procedures for data gathering were semi-structured interviews and institutional document reviews.

Semi-Structured Interviews

The interview guide (see Appendix B) contained several questions that assisted participants in providing relevant information about the institutionalization of local and international engagement processes in the land-grant university of the 21st century. The questions in the interview guide were open-ended in nature. I avoided leading-type questions that could influence the responses of the participants during the interview. As interviews progressed, I asked for more specific details on salient elements or categories (e.g. the utilization of databases to keep track of partnerships or engagement initiatives). Also, I adjusted words that tended to be interpreted in different ways. For example, the word “strategy” sometimes was interpreted as “strategic planning” or “initiative” or “process. Intensive interviews allowed an in-depth exploration of the research topic by eliciting each participant’s viewpoint.

Chain Sampling

I explored institutional documents to identify information-rich key informants. Interview participants were invited to suggest other potential key informants. Six out of the nine participants were identified by interviewees. I had anticipated that a minimum of three interviewees would be selected per site and this number was reached. Only one other potential key-informant was contacted but not able to participate in the interview. All key informants of the study were experienced leaders in mid- and high- level local or international engagement

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offices within the three selected land-grant universities as well as one faculty member. In most cases, I scheduled interviews directly with the participants and in a few cases through the participants' executive assistant.

Interview Participants

All participants were given the IRB letter to confirm consent (Appendix C). The interviews were conducted utilizing Zoom videoconference software in order to minimize unnecessary exposure during the COVID-19 pandemic. With the participants' consent, the interviews were recorded and transcribed. Aliases or pseudonyms were attributed to the participants to preserve their anonymity. At the time of the interview, participants held leadership roles in their respective sample universities. Three individuals were selected from each sample university.

The three interviewees from University of California, Davis were Gabriel, Alana, and Camila. The selected individuals represent Agricultural and Environmental Sciences, Native American Studies, and Global Affairs. Combined, they have over 40 years of experience at UC Davis and they have been recognized for their academic and administrative achievements. Camila has received multiple awards for her work in international affairs. Alana possesses an extensive background in indigenous studies and has published works on the subject. Gabriel has over ten years of recorded experience at UC Davis and is a strong voice for climate activism within the university.

From Michigan State University, the interviewees were Bennet, Mark, and James and they represent the Office of Public Engagement and Scholarship and the Office of International Programs. Bennet, a heavily involved individual has over 20 years of experience working for

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Michigan State in different capacities. James and Mark are leaders in the International Studies & Programs department of the university and have over 50 combined years of experience at MSU.

From Pennsylvania State University, I interviewed Charles who with ten years of experience at the university is an integral part of the school's administration in the area of Global Engagement. And I interviewed Andi and Luca representing the Community Outreach Engagement. Both Andi and Luca have a long tenure at Penn State and extensive background in university leadership and are heavily involved with community engagement for Penn State.

Table 3.2: Interview Participants

Institution	Participant Alias	Office
UC Davis	Alana	Native Studies
UC Davis	Camila	Global Affairs Leader
UC Davis	Gabriel	Agricultural College Leader
Penn State	Andi	Outreach Leader
Penn State	Charles	Global Affairs Leader
Penn State	Luca	Outreach Leader
MSU	Bennett	Outreach Leader
MSU	James	Global Affairs Leader
MSU	Mark	Global Affairs Leader

Recording and Transcribing

All interviews were conducted via Zoom to minimize health risks during the Covid-19 Pandemic. Interviews were recorded in the Zoom software and the audio file was exported to the researcher's personal computer, the file was renamed with the participant's pseudonym and uploaded to Otter.ai, automatic transcribing software. Otter was also utilized to edit the transcription for content accuracy. Lastly, transcripts were exported to a Word document and printed.

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Ethics

A total of nine interviewees -three participants from each school- were chosen from UC Davis, Michigan State University and Pennsylvania State University. Each participant was given notice that their identities would remain anonymous to preserve their privacy. Each interviewee was given an alias to allow me to reference specific participants throughout my research. Specific identity revealing details were omitted when referencing these individuals. Accurately recording the interviewees' responses and preserving the individuals' privacy was a priority.

Institutional Documents

The complimentary data collection method was document analysis. The purpose of examining documents was mainly threefold: 1) to obtain background information and to understand the universities' strategic direction in regard engagement and internationalization activities; 2) to identify formal organizational structures responsible for those engagement and internationalization activities (See Appendix D, E, F); and 3) to triangulate findings from the semi-structured interviews.

The documents were organized in an excel spreadsheet matrix noting the following selection criteria and annotations: document type [strategic plan, mission/vision/values, report, organizational chart, brochure, supporting documentation for awards or Carnegie classification], publication year [not older than 2010], distribution [public, confidential], publishing unit [various academic or administrative units], and a hyperlink to the document when available. A total of 10 to 15 institutional documents per university were reviewed before conducting the interviews to obtain background information on each sample university.

All institutional documents examined were publicly available except the supporting documentation to obtain the APLU award and PSU's supporting documentation to obtain the

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Carnegie Elective Community Classification. These documents were requested directly to the Offices of Outreach or Global Affairs of each university.

Additionally, interview participants suggested other documents to review, those were: United Nations Sustainable Development Goals, United Nations Declaration on the Rights of Indigenous Peoples, and the landgrabu.org website. All three are publicly available.

Data Analysis:

Constant Comparative Analysis

Data were analyzed using the constant comparative method, which is commonly used by qualitative researchers to generate themes through multiple rounds of coding (Thorne et al., 2004). The use of the constant comparative method is appropriate, given that the research design of the current study is grounded theory. The constant comparative method is in alignment with the design of grounded theory because of the use of multiple cycles of analysis in order to identify similarities, differences, and themes (Glaser & Strauss, 1967). The specific steps that were used to analyze the data are described in the following subsections.

Coding

Coding, or the process of defining what the data is about, is the first analytic step in grounded theory. “Coding means naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data” (Charmaz, 2006, p. 43). In grounded theory, coding emphasizes the emergence of codes and categories, rather than the application of preconceived codes or categories to the data. Throughout the process, I compared data to other data in order to generate codes, followed by comparing the data to salient codes to generate and develop categories. The coding in this study included two phases: initial or open coding and focused or axial coding.

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The initial phase was “open to all possible theoretical directions indicated by [the] readings of the data” (Charmaz, 2006, p. 46). I took notes of preliminary codes as I read the transcripts’ hard copy and then transferred these notes to an excel spreadsheet. A total of 364 notations were obtained from the 9 interviews. Notations refer to the total number of entries in the spreadsheet that is for instance, the code “DEI” accounted for 5 entries while the code “Engagement Initiative Example” accounted for 32 entries. The open coding included thematic codes and *in vivo* codes, here are some examples:

Thematic codes: Community Ownership, Organizational Restructure, Funding Sources, Strategic Vision, Challenges, Definitions, Office Role, Engagement Initiative Example, Integration, Database, Networking, Partnership, Silos, Internal Bureaucracy, Organizational Bridge, Thematic Collaboration, Connection by Chance, Promotion & Tenure, Contextualization, Impact, Infrastructure, Connector Role, Institutional Research, Institutional Assessment, Networking, Reciprocal Relationship, Sustainability.

Some *in vivo* codes included: “How do we claim to graduate globally competent students? Well, we have to do global and local together” (Charles), "If you can get half of the university to put that information there, I think you'll be good" (Gabriel); "It just so happened that I had been working with [...]" (Luca); "Students are actively engaging in the global questions, but locally" (Camila); "These kind of littler conversations that became bigger" (Alana); “World Grant University” (Mark).

The next step was performing a first round of axial coding utilizing the excel spreadsheet. Here, the entries were reduced to about a third of the original amount. A second axial coding followed to closely examine similarities and differences, to pinpoint the most salient or significant codes and relationship among themselves. During axial coding *in vivo* codes were

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assigned a thematic code and thematic codes were grouped by larger encompassing categories. For example the six codes: Reciprocal, Mutually Beneficial, Time Investment, Interest Alignment, Soft Skills, and Relationship Building were grouped under the code Quality Partnership. Likewise, the code Networking encompassed the following codes: Consortium, National Organization, International Organization, Collaboration between Universities, Alliances.

Analytic Memo Writing

The goal of memo writing is to document questions or analytic insights throughout the research process. These insights may refer to “coding processes and code choices; how the process of inquiry is taking shape; and the emergent patterns, categories and subcategories, themes, and concepts” (Saldaña, 2013, p. 41). Any of these insights may possibly lead to the development of a substantive theory. This is the space where data and creativity blend in deep conversations, giving rise to the emergent conceptualization.

For this study, I wrote memos informally as thoughts, insights, and questions that aroused during the data collection and the data analysis phases. The memos had titles and were kept on a notebook for retrieval and reflection. The content of the memos varied greatly. Initially, the memos would mainly have questions and directions for inquiry. Here is an illustration:

Political Pressure

What is the governing body of these land-grants? What is the relationship with state legislature? How much say does the state have on strategic direction? Is the legislature in agreement with funding international programs? What are the political forces behind internationalization activities? Do entities like the Higher Education Policy Committee (HEPC) in West Virginia act as agent of change or resistance for university internationalization? It may be beyond the scope of this study since I am studying the institutional response to globalization forces rather than the external factors that may promote or hinder internationalization activities but it is important to keep in mind the governmental structure of each of the sample universities.

Other memos reflected on interview participants’ word choices and their implication:

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Institutional Commitment

Bennett says “commitment to work internationally”. The word commitment implies institutional intentionality, a plan, a promise and also a record of past actions. It talks about a deliberate approach to internationalization. Strategic plans and reports would show this commitment.

Memoing helped redirect data analysis and reflecting on potential limitations of the study:

Diversity, Equity, and Inclusion

“We tend to think of DEI through our national lens” (Charles). And this is exactly what I have done at the beginning of this inquiry. For example, when analyzing the organizational charts before the interview phase, I focused on units of extension, public scholarship, global engagement, but not the offices of Diversity, Equity, and Inclusion or their connection to global engagement. My interviews don’t have representatives from DEI which can be a limitation of the study. Look at org charts and see how the DEI offices are connected.

Memoing also became a personal space to reflect on the research process itself, struggles, learning opportunities, and subjective influence on the qualitative inquiry. Even my native language had a place in these personal memos:

Interviewing en inglés

It was intimidating interviewing Vice Provosts, Deans, Associate Deans, and Directors of universities in California, Michigan, and Pennsylvania. I started by reaching out to one participant. To my delight, this participant was kind, relatable, open and so willing to share information. The next participant was also personable, helpful, and supportive. And one after another, all participants were pleasant, encouraging, had good sense of humor, they offered great insights and even advice. My words to describe the interview experience are nothing but positive.

I realize that these people are leading engagement initiatives in their universities and I can see the positive difference they can make with their soft-skills and relatable personalities. All participants highlighted the importance of quality relationships in university engagement. With all nine participants, I have experienced first-hand how soft-skills can truly bring forward the best outcome in a relationship. And, the “connector role” that individuals have in university engagement initiatives is not acquired by chance.

As far as my interviews, I need to see how the breadth and depth of the data I have obtained was affected by my personal disposition during the interviews, tenser and closer to the script toward the beginning of the interview process and more relaxed and conversational toward the end of the process.

Theoretical Sampling

Theoretical sampling is a pivotal grounded theory strategy by which pertinent data is sought to elaborate and refine preliminary categories. This is a strategic, specific, and systematic subsequent data gathering process focused on the category and its properties. (Charmaz, 2008). Theoretical sampling pertains to conceptual and theoretical development; it is not about representing a population or increasing the statistical generalization of results, but about fully explaining the categories that will constitute the substantive theory (Charmaz, 2008).

In this study, I applied theoretical sampling to elaborate the meaning of the categories, discover variation within them, and identify and fill gaps among categories. Checking the emergent analysis against direct empirical realities solidified the grounded theory building process. Categories like Relationship, Partnership, and Networking seemed to have many overlapping characteristics. Going back to the data and conducting theoretical sampling in the interview transcripts and the institutional documents, was necessary to conceptualize each category distinctively. Another construct that required theoretical sampling was the tension between the university bureaucratic organization and the horizontal interfaces where partnerships among internal and external stakeholders are developed. That is, the vertical and hierarchical functions of a bureaucratic organization such as the reward system based on assigned roles and responsibilities are not applicable in engagement activities taking place in horizontal institutional interphases. For example, Global Affairs may instruct for faculty to engage with international community to research and improve the livelihood of low income families. But, this call to engage globally is not directly paired with a reward system within the hierarchical ladder. In this case, faculty is left to find partnerships in-between formal units to obtain the resources of funding, information, and talent and conduct therefore the global engagement initiative. After

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theoretical sampling, this tension appeared repetitively whether offices of Global Affairs, Public Scholarship, or Outreach and Engagement. These offices have more of an engagement support role, they promote a vision, provide tools, guidance, and infrastructure and they work in collaboration with other academic and administrative units.

Theoretical Sorting, Diagramming, and Integrating

Through the multiple rounds of coding, sorting the analytic memos, diagramming and integrating, the following main themes have emerged:

- The land-grant model has changed over time from a unilateral outreach to a bilateral engagement
- Orientation to engagement has extended its public reach from local communities to international communities
- Community networks are created and maintained through relationship building and partnerships
- The university acts as a connector agent
- There are partnership enablers
- There are partnership challenges
- Assessments practices directs engagement

The analysis also took visual forms through diagrams. Diagrams are useful to see the relative power, scope, and direction of the analytical categories, as well as the connections among them.

The diagram below simply illustrates the Global Engagement Model premise that universities remain centered in students, faculty, and staff and embedded in local communities and environments, expanding into the global realm depending on motivation, community needs, and external stakeholder interest.

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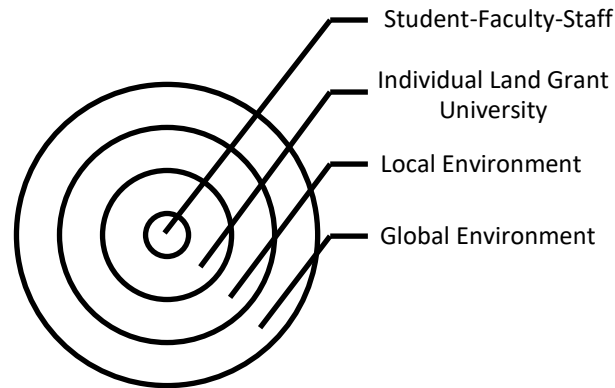


Figure 2: Land-grant university anchored in the local community

Another diagram illustrates the relationship between land-grant universities and their overseas counterparts. While land-grant universities send their students overseas for study abroad programs, ensuring cultural enrichment and learning experiences, overseas universities send their students to American land-grant universities. The symbiotic process ensures partnerships between land-grant universities and overseas universities. While land-grant universities consider the emerging needs of international and domestic students through equity and diversity initiatives/programs, they also externalize and locate research opportunities to boost international visibility and appeal. The seeking and establishing of research partnerships domestically and around the world, with other global universities, works symbiotically with improving the university's worldwide image and attracting more international students.

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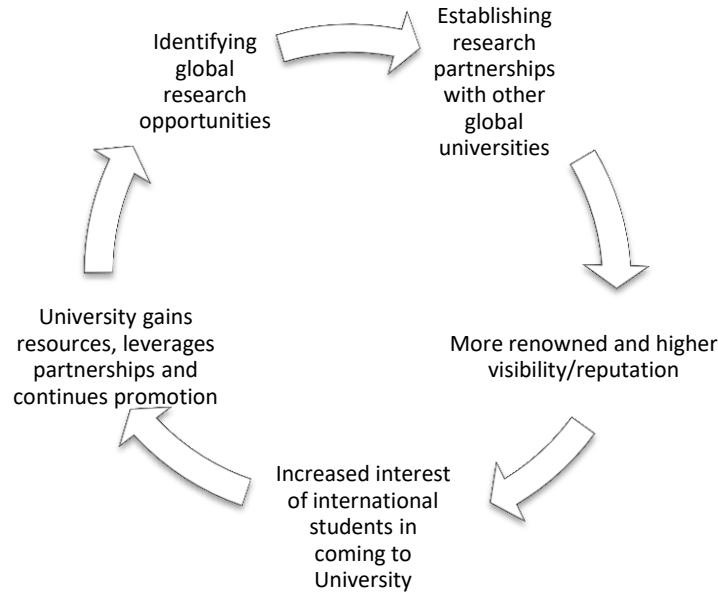


Figure 3: Global partnerships cycle

Figure 3 shows the cyclical way in which the universities establish research partnerships with other global universities, achieving visibility from said alliances, and attracting international students for enrollment at American land-grants. Due to increased enrollment, universities access resources and continue to leverage partnerships. Finally, it can then identify new research opportunities. Simultaneously, universities serve domestic/local populations through community outreach, extension, campus initiatives, programs for ethnic minority and underserved populations, medical efforts, medical research that assists the community, childcare provision, and equity initiatives that hire ethnic minority faculty members.

Grounded Theory Building

The above data analysis procedures gave rise to an integrated set of descriptions, explanations, and abstract interpretations that can be relevant for understanding the Global Engagement Model of Land Grant Universities in the network society of the twenty-first century.

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Throughout the research process I monitored the effect of subjectivity so as to arrive to credible and trustworthy interpretations.

Trustworthiness

The trustworthiness of a qualitative study requires the establishment of high levels of credibility, transferability, dependability, and confirmability (Korstjens & Moser, 2018; Shenton, 2004). These four aspects are critical in establishing the overall quality of a qualitative research study. Each of these four trustworthiness strategies is described below.

Credibility

The correctness or credibility of this study is based on ruling out plausible threats to the researcher's interpretations and explanations (Maxwell, 2005), rather than implementing controls a priori to anticipated threats to validity like in quantitative methodology. In this case, there were two significant threats to the credibility of the qualitative conclusions herein. First, my subjectivity or perceptual lens that can influence data selection and collection. Second, the phenomenon of reflexivity (Hammersley & Atkinson, 1995) that is the influence of the interviewer and the interview situation on the informant's comments.

Credibility was reached by testing the soundness of inferences and conclusions through the following methods. First, I searched for discrepant evidence and negative cases that can point up conclusion flaws. Second, I collected information from a variety of sources and participants (i.e., triangulation). Third, I conducted member checks (Maxwell, 2005) during the interviews.

Transferability

Transferability describes the extent to which the study findings have applicability beyond the current research participants, suggesting that the study can be meaningful in other settings (Korstjens & Moser, 2018; Shenton, 2004). Establishing the transferability of a study is

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important in order to empower other researchers to make correct judgments about the applicability of the findings in other scenarios (Pandey & Patnaik, 2014). Without clear boundaries of the transferability of a study, there is a risk that other researchers can incorrectly make conclusions about the applicability of the findings in other contexts.

In order to enhance the transferability of the study findings, I ensured that sufficient description of the context where the findings were acquired was provided to the readers. Providing a thick description of the context is important to the proper contextualization of the participants' experiences and perceptions, thereby minimizing issues involving incorrect application of the findings (Korstjens & Moser, 2018). The creation of a thick description entails providing sufficient details of the research setting and characteristics of the participants without revealing specific information that could compromise the privacy and confidentiality of the participants.

Dependability

Dependability pertains to the stability of the findings, or the extent to which the research findings will be the same even if another researcher conducts the same study (Korstjens & Moser, 2018; Shenton, 2004). Establishing the dependability of a qualitative study is important because qualitative researchers need to demonstrate to other scholars that the research findings have been acquired systematically and logically (Pandey & Patnaik, 2014).

To establish the dependability of the study, the main strategy that was used was the creation of an audit trail. An audit trail is a documented recording of every step that was taken during the entire study (Korstjens & Moser, 2018). The creation of an audit trail involved creating and updating a logbook to document every step of the analysis, from the initial stages of the research to the generation of the findings.

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Confirmability

Confirmability taps into the objectiveness from which the research findings were generated (Korstjens & Moser, 2018; Shenton, 2004). It is important to establish confirmability in order to demonstrate that the researcher's biases did not influence the findings, that the research findings can be supported by the raw data, and that the procedures were performed ethically and correctly based on the design selected (Pandey & Patnaik, 2014). Audit trails served as the strategy that will allow others to evaluate the objectivity (i.e., confirmability) of the findings (Korstjens & Moser, 2018). Additionally to the goal of audit trails in terms of the establishing dependability, the goal of audit trails in establishing confirmability is to demonstrate that the research findings can be supported by the actual data collected from the participants and document analysis.

Limitations

Given that the research design is grounded theory, the findings are only intended as a possible starting point for more advanced conclusions about the relationship of the concepts in explaining a phenomenon (Strauss & Corbin, 1994). The results of the study may not be transferable to all land-grant universities in the United States including land-grants founded after the Second Morrill Act of 1890 and/or 1994 Tribal Colleges.

The intensity sampling criteria intended to identify sites where engagement activities are prevalent. Intensity sampling means that participants are selected based on those who are anticipated to have the richest example of a phenomenon. However, a limitation of intensity sampling technique is that the challenging aspects of a phenomenon may be less articulated because of the selection of examples that have shown high success in a particular area of interest.

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Related to the use of intensity sampling technique, a possible limitation is the use of the Carnegie Community Engagement Classification (CEC) as proxy for the identification of the sites and participants for the study. The CEC was used to identify sites that have reached considerable success in fostering community relations at the local, national and global levels. The limitation of using this classification as benchmark for determining community engagement success is that the intended purpose of the classification is to identify points of improvements in community engagement, which does not align with the goal of the current research. However, a key benefit of using Carnegie's classification is that it highlights sites that have high levels of community engagement.

Another potential limitation of this study is that the interviews were not conducted in person. The interviews were conducted through videoconferences in order to minimize unnecessary exposure during the Covid-19 pandemic. The lack of field notes and other communication that could only occur during face-to-face interviewing was also a limitation. Internet connectivity issues compromised the beginning of two interviews and shorten the total time allotted for one of the interviews.

Summary

The purpose of the proposed study is to examine the institutionalization of local and international engagement processes in the land-grant university of today. The grounded theory research design enabled me to identify the key concepts involved in this phenomenon and their hypothesized relationships with each other (Strauss & Corbin, 1994). Given the process-based focus of the current study, the grounded theory design is appropriate in order to uncover the mechanisms involved in the institutionalization of local and international engagement processes in the land-grant university.

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Data was collected using individual semi-structured interviews and institutional documents. All interviews were conducted via Zoom to reduce the risk involved in conducting face-to-face interviews during COVID-19 pandemic. I analyzed data using the constant comparative method, with the goal of identifying themes about the relationship of concepts with each other in order to generate a substantive theory (Strauss & Corbin, 1994) about Global Engagement for Land-Grant Universities. To enhance the trustworthiness of the findings, the credibility, transferability, dependability, and confirmability of the study was established (Korstjens & Moser, 2018; Shenton, 2004). In the next chapter, I present the results of the analysis and delineate the research findings.

CHAPTER 4: FINDINGS

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In this chapter, I present findings following the four research questions:

1. How do land-grant universities engage with the local public in the era of globalization?
2. How do land-grant universities engage with the international public in the era of globalization?
3. How do land-grant universities integrate local and international engagement?
4. How do land-grant universities institutionalize global engagement?

RQ 1: Land-Grant Engagement with the Local Public

The land-grant university's unilateral local outreach model evolved to a bilateral engagement and relationship building model

The central theme emerging from the data was the radical change that local university engagement has gone through over the past century. Documents and participants highlighted the unilateral orientation of university engagement during the foundational years of the land-grant. This type of activity was done mainly through the office of Cooperative Extension. Later, the model became bilateral and an array of university units changed their structure and function.

Cooperative Extension was the foundational organizational unit with the function of reaching out to the community. This outreach would take the form of bringing university produced knowledge to the local communities; mainly a one-way knowledge and technology transfer within the agricultural industry. "This model was pretty much invented on my campus, prior to being adopted nationally, at the beginning of the 20th century" says Bennett from MSU.

However, the nature of outreach activities originally conducted by Cooperative Extension has been transformed in content, constituents, form, and function. Participant Gabriel from UC Davis explains:

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The model has changed over the years; we used to have a lot of extension agents doing only outreach. People going all over the states, they would be out in the field for most of the time. And that has changed; there are no more positions like that. And the university, the government basically changed and they don't fund that kind of activity anymore. So if you want to be in a university, and as an institution, you can't survive by doing that anymore. There is no provision that will do that. So what is expected of an extension agent has changed fundamentally.

In regard to the structure reorganization, participant Andi from Penn State explains “extension used to be part of outreach but about 12 or 15 years ago, it moved back to its home which is the College of Agricultural Sciences.” Camila, a leader at UC Davis, noted about the Office of Public Scholarship

That's an office which has been created maybe two years, three years ago, very new. And that's exactly an example of how we should be acknowledging public scholarship, and building relationships between local communities and the university. Building relationship between wealth of knowledge, experience, research and the community who has knowledge and experience and wealth of creativity and so on.

This statement suggests that one of UC Davis' top concerns is to build partnerships between the university and local communities, building on research. This would imply the university emphasizes integrating global and local, as research remains globally oriented and innovative.

Cooperative extension and newer organizational units moving from service to engagement is a pathway for universities' relations with local publics. The general observation is

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that outreach has moved to a level of being more participatory and bilateral with local organizations and communities, rather than unilaterally transferring knowledge from an expert and higher valued actor to a perceived less-able recipient. According to Wild (2013), cooperative extension refers to linkages between consumers, educators and practitioners in a meaningful and robust way. It often involves advocacy, community participation and leveraging resources.

Study participants commented on the type of relationships that are present in engagement initiatives. Although I did not directly observe those interactions, participants' descriptions concurred on the importance of an equitable and inclusive relational model where constituents involved mutually benefit from it. Interestingly, it was women who first proposed the relational, rather than competitive, response to organizational efficacy. Walsh et al (1998) summarized this approach aptly explaining that in the paradigm that recognizes the relational and interdependent nature of our lives we must recognize the impacts our actions have on others. Connection, mutual relationships and self-knowledge are critical aspects of the relational approach, which has become prevalent in land-grants' engagement initiatives.

A relational approach with a social justice focus is where all the work and advocacy from the Division of Equity and Inclusion also acquires a global relevance. Participant Charles from Penn State pointed out: "In the United States, we tend to think of DEI through our national lens." However, fostering a sustainable global society requires equitable and inclusive engagement initiatives from a global perspective. Ludeman et al (2020) notes one prominent transformation in higher education within the past century has been the rapid diversification of the student body. Sample universities have engagement initiatives that expand the level of access to different local and international population groups, often those who may undergo

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marginalization and discrimination. In this way, universities align with UNESCO's goal of securing equity in education internationally.

For Camila and other participants, it is important to learn about different cultures effectively, and to espouse the value of diversity above and beyond its program constituents and initiatives. It is important to engage with both global and local communities, with collaboration being a vital component. Stakeholders and organizers "learn from difference", according to Camila "you want to have difference voices around the table." Diverse voices bring different experiences and lead to meaningful and robust learning.

From a socioeconomic perspective, lowering the overall cost of university tuition especially would contribute to increase access and serve all students. Nation building involves expanding access to individuals from all backgrounds and origins.

The partnership between university and community needs to be mutually beneficial and uphold realistic expectations. The principles of engagements, as participant Luca from Penn State synthesizes, include reciprocity and mutual understanding of roles, responsibilities, and time expectations:

For me, it is making sure that, there's reciprocity between both entities. It's important for us to be transparent about what our needs are as a university. But it's also important for us to listen to and honor the priorities of our community partners, and they may not be in alignment but we have to be committed to ensuring that we're going to strive towards mutual reciprocity. I think the second biggest one is at the onset, coming to mutual understanding of what the expectations are around our collaborative efforts. Which means we have to talk about scope and timeline, what can be accomplished successfully within a given timeframe. Because what we don't want to do is to approach our community partners, over promise and under deliver. So we want to make sure that, again, we are approaching, we're coming to the table with realistic expectations. And with a level of commitment that we're going to see this through no matter what.

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The process of local engagement is conducted through multiple university initiatives. Next, several engagement initiatives at each sample university are described where it is possible identifying the salient theme noted above.

Local Engagement Initiatives

Local Programs at UC Davis

UC Davis has undertaken the exchange of knowledge and resources within external and internal communities. Some of the initiatives leaning toward the more immediate community include: WeCARE! Community-Based Cancer Peer Navigator, and Central Valley Scholar's Program, offering scholarships (Easley, 2015). The scholarship and Cancer Peer Navigator are initiatives offered primarily to regional communities and students of UC Davis, showing the university's commitment to domestic populations. UC's College of Agricultural & Environmental Sciences includes an Agricultural Experiment Station, which has researchers who work in the field of solving pressing challenges in this region of the United States. One of its notably local efforts is to increase crop yields and farmer productivity in California (UC Davis, 2022b).

Two other programs involve economic development of the local region and Native American network. There is a Native American Student Success Centre (NAASSC), which students collectively call the Native Nest. The Upcoming Events section on the NAASSC website offers career advisors and advice seminars, workshops, a meeting with a writing support specialist and Veggie Up! Veggie delivery on Tuesdays (UC Davis, 2022b). It celebrates Native American students' connection to their tribal land and is a particularly salient example of UC Davis focusing on local connections and activities to enrich the lives of students.

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The University of California Land Grab: A Legacy of Profit from Indigenous Land (2020) report details the ways in which the Universities are attempting to remediate or reconcile some of the past wrongs committed against Indigenous communities. The Center for Regional Change (CRC), part of Community & Economic Development, supports sustainable, prosperous, equitable and healthy regional communities both within UC Davis and surrounding the campus. The Regional Opportunity Index is an online-based platform that organizes data into a visual format, and experts have used it to make sustainable and low-income housing decisions. The Sacramento region has the Coalition on Regional Equity, a similar initiative, offering community health resources and tools (UC Davis, 2022b).

UC Davis' Strategic Plan (2018) offers examples, through goals, of initiatives that cater to local needs. Goal 1 is addressing challenges/needs of a diverse and changing world, which includes local learning oriented toward ensuring the wellbeing of the domestic population through downsizing classrooms, offering hybrid approaches to learning (online and offline), assisting marginalized and ethnic minority students, as well as optimizing infrastructure and aligning teaching methods. Goal 2, which is enabling/supporting research to increase wellbeing, includes using cutting-edge research across disciplines. Locally, UC Davis is becoming a major Cancer research center through organized research units, offering patient and population healthcare services (UC Davis, 2018). Goal 3 from the strategy is diversity, inclusivity & equity, corresponding to a drafted document in 2017, which seeks to recruit students from socioeconomically underprivileged groups. UC Davis also offers support and integrative experiences for Hispanic and Latinx students (UC Davis, 2017). On local levels, the university rolls out a campus-wide initiative making it possible to track the success of domestic student populations.

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Local Programs at MSU

MSU is emerging as a “leader in advancing equity through our scholarship and research, our educational mission and its outcomes” (MSU, 2021, p. 12). One of their goals is to eliminate disparities between ethnic majorities and minorities in graduation rates. Their plan to eliminate health disparities caused by socioeconomic and ethnic power dynamics (MSU, 2021) displays commitment to understanding the role institutions play in making a social difference in the local community.

One initiative is My Spartan Story, which administrators and students started as a meaningful way to record students’ extra-curricular and curricular activities in ways that could be beneficial to them. My Spartan Story is an excellent example of meeting the needs of the local student population and improving networking opportunities. The values or activity indicators of My Spartan Story are Education, Community Engagement, Internship, Creativity, Advocacy, Intercultural, Wellness, Involvement, Leadership and Research. All of these have implications and offerings for domestic/local students. For instance, MSU integrates wellness programs to keep students balanced. The Spartan Experience Record is a formal record of students’ extra-curricular and co-curricular activities in the local community throughout enrollment at MSU (MSU My Spartan Story, 2022). This record is useful to students because it allows them to present and document how activities engaged in throughout their university careers have benefitted them personally and professionally. It assists students in creating a record of personal engagement which they can take with them to future employers and/or graduate education.

MSU’s local commitment to the local public is visible in their student support programs. Through improving their health and well-being, and educational experiences, they are in a better position to engage with regional communities. Students also benefit from extra-curricular

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activities that propel them into a professional or academic future. Programs that give underrepresented students the chance to enroll in MSU evidence the university's desire to maintain equitable policies among the local public.

Career development, reducing disparities between different racial group with regard to health, and offering opportunities for alumni engagement, are all some of the local initiatives MSU offers. MSU has an extension initiative that connects knowledge with businesses, families and communities (MSU, 2021). The high emphasis on creating the best possible experience for local faculty and students displays commitment to local considerations.

The Neighborhoods Initiative (Strategic Plan, 2017), organized and operated by the Student Success team, is a way to engage support staff and faculty in assisting students who have experienced lower graduation rates and historical oppression. These include students who identify as Latinx/Hispanic, Alaska Native/American Indian, African American and Pacific Islander. Neighborhood Initiative provides a glimpse into the importance of diversity for the program. This would indicate that there is a higher emphasis on engaging and sustaining the local/national, versus global student population. The focus on rootedness and proximal communities, which emerge as part of the 'neighborhoods' framework, also implies a more local emphasis. More concretely, we could view this from the lens of social justice. Community social justice is an important contemporary issue and involves becoming active in communities to secure fair and equitable outcomes. McPhail (2021) notes social justice has become a permanent fixture in most higher education institutions. Demographic and other changes accelerate at a rapid pace. Many education institutions have, as part of their business model, combatting social inequity and achievement disparities. Gender identity, race, class and sexuality are among the

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topics frequently studied. This framework refers to more than simply holding a few events; it means embedding justice into the institutional mindset.

A local initiative, related to the strategic theme of faculty and staff success, is Excellence in Trauma-Informed Response/Communication, which seeks to support graduate and undergraduate students who rely on staff and faculty. The program ensures commitment to workplace environment and culture, targets sexual harassment, and houses the MSU Safe Place, a domestic abuse shelter that is one of its kinds. There is also a center where survivors receive information about Title IX hearings and investigations. The program and its associated components are available both to students and staff members (MSU, 2022c).

Excellence in Trauma-Informed Response/Communication is a local initiative because it targets the immediate needs of ethnic minorities in the United States, and those who are already part of the MSU community. From an assessment perspective, MSU's 2030 Strategic Plan, does not include information about how to adapt and adopt the trauma response and communication program to international students.

Lastly, there are a plethora of other programs through Extension Outreach. Extension builds on existing capacities and has been around for over 100 years, integrating knowledge and research to ensure that MSU plays a critical role in developing businesses, families, communities and individuals (MSU, 2022c). MSU is also engaging with local communities, aside from its university network. The Strategic Plan highlights that MSU has maintained partnerships and expanded its academic offerings, outreach and research opportunities to places like Grand Rapid, Flint and Detroit. They also have a membership with the Alliance for African Partnership. MSU works in every Michigan county and supports solutions to real-world problems at international

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and regional levels. They have the capacity to build across business, communication, science, education and health (MSU, 2022c).

Local Programs at Penn State

PSU's Strategic Plan 2016 – 2025 details local engagement activities aiming at expanding access and supporting a more inclusive higher education in the region. These initiatives may have an impact on global events and outcomes, but they cater to serving the state population and PSU's students. Enabling Access to Education means offering domestic students from disadvantaged or underprivileged socioeconomic and from underrepresented ethnic backgrounds opportunities for enrolment. Engaging Students incorporates offering experiences that enhance educational journeys in study abroad programs, research, student organizations, performance and arts, leadership and service learning (PSU, 2020).

Equity and Diversity and Ensuring a Sustainable Future are the next two facets for local engagement. Advancing Inclusion, Equity and Diversity refers to the university's ongoing efforts to create a positive, ethnically diverse environment for its students that consist of workshops, outreach, and student learning opportunities, extracurricular engagement and securing workplaces. Instituting equitable policies means eroding systemic barriers that distinctly limit possibilities for marginalized groups (PSU, 2020).

The Inclusion initiative, part of Penn Compact 2022, includes, as one of its core tenets, a financial aid program based on grants that seeks to recruit and support students from a variety of socioeconomic backgrounds (PSU, 2022). Local communities for Penn State include rural communities and population from a disadvantaged background. PSU has a distinct policy for ensuring diversity and acceptance/enrollment of disadvantaged local students. The university consistently aims to meet ethnic minority targets. Dickinson School of Law had the highest

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proportion of ethnic minority students in 2007. The university has several scholarships and programs, including Osher Reentry Scholarship Program, Brook J. Lenfest Scholarship Program and U.S. Department of Education CCAMPIS grants to support students from disadvantaged socioeconomic backgrounds (PSU, 2022).

Students can also work with federal and state governmental agencies, non-profit organizations, public interest or with other important community stakeholders. PSU's Institutes of Energy and Environment ensure that there is debate and research surrounding increasing urbanization and discuss environmental initiatives congruent with global and local communities. There is acknowledgment, from a social justice perspective, that urbanization negatively impacts ethnic minorities (PSU, 2022). PSU offers a range of social justice-based initiatives and programs, including the Social Justice in Education course.

Penn State has two urban centers, one in Pittsburgh and the other in Philadelphia. Pittsburgh's center focuses on socioeconomic development and Philadelphia's focus is on social justice issues. These centers facilitate experiential learning acting as a field placement and community engagement, they connect real world challenges in urban environments with sustainability, considers individual and societal needs, as well as problems arising from inequity. It takes a community development approach (PSU, 2022)

Other community-based, local initiatives at Penn are Projects for Progress, Campaign for Community, action plan to facilitate equitable hiring practices, as well as daycare, caregiver connections program, 24/7 support and mental health counseling, as well as a day care for new mothers. The university offers workshops that offer guidance on this. There is also an adoption program that assists new parents, interested in adoption, financially and in terms of integrating professional and family life (PSU, 2022). The salient theme present in these initiatives is a

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willingness to cater to local populations, students and faculty members working at or involved with Penn State.

Local Engagement of Land-Grant Universities in the era of Globalization

Historically, the land-grant university system (considering the two Morrill Acts, the Hatch Act and the Smith-Lever Act) have focused on agricultural and economic development of local communities (Collins, 2012; Ostrom, 2020). The legal framework and the funding for the land-grant system, promoted a unilateral relationship between universities and communities. Activities such as university serving, assisting, or transferring knowledge to the community were accepted and expected. Figure 4 illustrates this university expert model assisting community organizations which were mainly farmers, industries, and civic organizations.



Figure 4: Unilateral relationship between university and community

Social forces in the twentieth century have reshaped community needs. Today, we live in the network society with a knowledge economy (Castells, 2000) with equitable and inclusive aspirations for each member of the communities (UNSDG, 2015). And new demands for the land-grant university system were voiced by academics (Boyer, 1990), the Carnegie Foundation, and the Kellogg Commission among others. Figure 5 illustrates the new type of relationship between the university and the community. This relationship is bilateral, the university moves away from the concept of “helping” the community towards the idea of “engaging” with the

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community (Campbell & Pendleton, 2019). The illustration also shows a redefinition of community members or organizations that were invisible in the 1800s or through mid-1900s as well as new university units taking a protagonist role in local engagement initiatives.

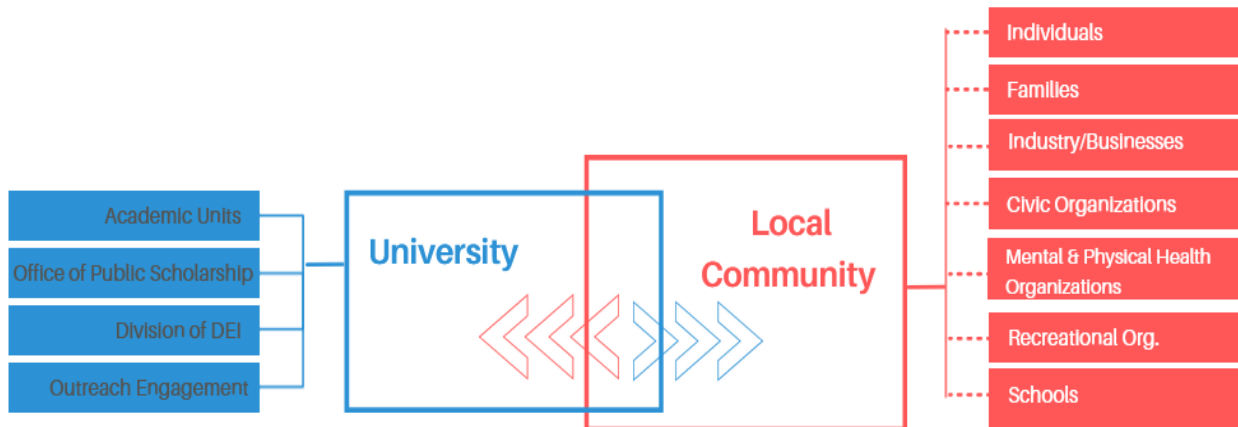


Figure 5: Bilateral relationship between university and community

Through the description of the local engagement initiatives presented above, it is possible to observe that all three universities in this study have indeed developed new ways to respond to community needs in the 21st century. Local engagement initiatives will often include moves toward offering sustainable solutions on campus and the city or state in which the university is located. Nowadays, local engagement initiatives will also attend to social justice issues. Programs to increase equity and inclusivity of underrepresented or underserved groups are paramount. Land-grant university response to current social needs included a new type of relationship with the community and also a redefinition of those community members. The engagement efforts from 1990s onward, emphasize a shift away from the university as expert (implying the university can serve and reach out to its community) toward a collaborative, two-way model in which multiple community partners work with universities and play a significant role in creating and sharing knowledge to contribute to the populace (Weerts, 2011).

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The networking dynamic of the local engagement initiatives presented above are represented in the following diagram (Figure 6) emphasizing the mutual partnership occurring in the intermediate interface of university units (academic or administrative) and various community entities or organizations. The networking dynamic of the global society is also observed in the relationship between land-grant universities and their local communities. From a local perspective, these universities continue to take care of their local public by fostering social justice improving health, socio-economic development and working in collaboration with local entities.

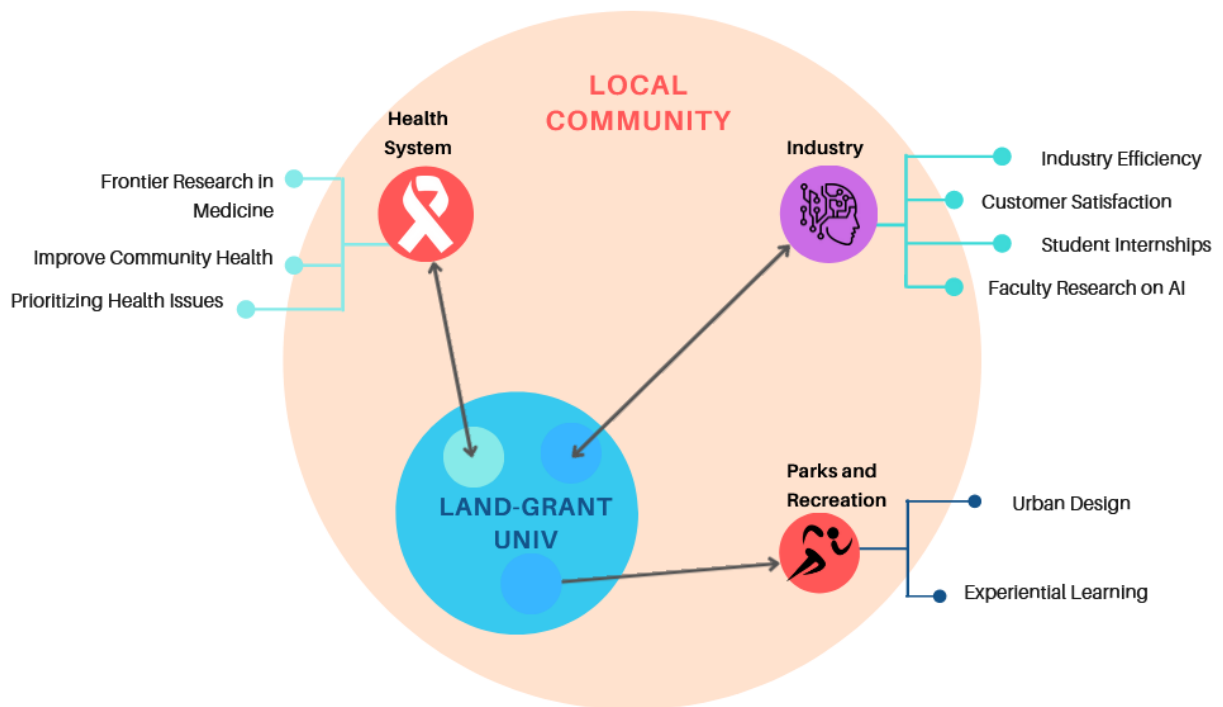


Figure 6: Examples of partnerships in the local intermediate interface

RQ 2: Land-Grant Engagement with the International Public

University engagement has extended its public reach from local communities to international communities.

In addition to the newer bilateral and reciprocal orientation of university engagement, land-grants have also expanded their reach from local communities to international communities. Universities are integrating an international framework that involves not only programs and initiatives with international publics, but broader and more meaningful considerations about how cultural diversity enriches the university mission and experience for all.

The World Grant Ideal (Simon, 2009) is an aspirational concept for land-grant universities. It acknowledges that processes happening “in one’s own backyard link directly to challenges occurring throughout the nation and the world” (p. 5) and invites land-grant universities to pursue global prosperities in their service to public good. According to participant Bennett from MSU, President Lou Ann Simon commentaries about the World Grant, noted above, were not aspirational, rather, a reflection of an ongoing campus transformation:

I think when she wrote about being a world-grant, we were already so heavily leveraged international. And so in one sense, you could say it was more of a rhetorical change than it was actual organizational change. [...] By choosing those particular words, she was trying to appeal to people in higher education, who I think didn't need to be convinced of the value of the land-grant; they already valued the land grant. But, by attaching to it a concern about how an institution serves constituencies and peoples more broadly than locally, she was appealing to an audience that probably was mostly willing to accept that point. But maybe not

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100%. And maybe it was also a way of saying that things we do on our campuses in certain ways can make big differences globally.

The MSU's organizational structure in the mid-twentieth century reflects a formal commitment to work with the international public. "It was during President Hanna's tenure in the 1950s or 1960s that we basically created the first International Studies College in the country" said Bennett and added: "This unit is the housing place of a variety of study centers that focus on different geographic places."

Subsequently, UC Davis and Penn State also established units to engage with the international public. As participant Gabriel noted "the universities used to rely completely on local" and explained that "land-grant system grew from helping the state's farmers to be much more global, and learning from each other." Gabriel emphasized the mutually beneficial partnership between university and community: "it's not a one-way direction it is a two-way direction." Likewise, participant Camila noted a shift on the internationalization framework toward mutually beneficial partnerships amongst the university and international constituents:

The whole frame of internationalization is no longer about the mobility of students sending them abroad and bringing international students but it's more focused on research, working with faculty, developing partnerships, partnerships that are transformative, not just transactional, but transformative.

According to Perkins (n.d.), mutually beneficial relationships within business or organizational context rely upon reciprocal relationships among stakeholders. Mutually beneficial partnerships must have the key ingredient of benefiting all strategic partners. There must also be broader shared goals present.

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The more universities expand their engagement reach to a broader public, the more opportunities provide for students to become global citizens. Garson (2011) explains that global citizenship entails an increasingly internationalized post-secondary education system, with important perspectives like critical pedagogy, evaluation, sustainability and transformative learning theory. Ideas about global citizenship are necessary to understand each university's unique mission and vision.

International Engagement Initiatives

International Programs at UC Davis

UC Davis has been moving toward campus internationalization especially in the last two decades. There is variety of efforts to incorporate and integrate a broader range and higher number of international students, research partnerships, and community entities (UC Davis, APLU, 2020). The university took steps in offering multidimensional approaches to internationalize the campus. UC Davis's Strategic Plan emphasizes the elimination of travel barriers that prevent domestic students from studying abroad. Other initiatives include expanding study abroad, seminars, opportunities for service learning and seminars (McPherson, 2020).

UC Davis has shown excellent commitment to broadening its structure for incorporating international students and cultural concerns. According to UC Davis' address to APLU (2020), a core element of the narrative for the application submission was Inclusivity: A Hallmark of Global Education for All. Within world university rankings for internationalization, UC Davis ranked among the top contenders. UC Davis is increasing diversity within the Hispanic/Latinx/Hispanic population, but its international enrollment increased from 2,220 in 2008 to 8,048 in 2018. UC Davis supports undocumented students and is working on emerging as a Minority Serving Institution. Pathways include academic (study abroad, course work, etc.),

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experiential learning, internships, global extracurricular activities and campus leadership (UC Davis, APLU, 2020).

Global Affairs coordinates these efforts and has appointed a Director of Communications, an organizational restructure to improve visibility and networking opportunities. The Office has published its Strategic Plan articulating a “global campus identity” (UC Davis, APLU, 2020) by building on strengths, developing a roadmap for achieving international strategic goals appearing in the university’s strategic plan and continuing to integrate internationalist discourse into university conversations. In this way, internationalization becomes one of UC’s end goals and top priorities (UC Davis, APLU, 2020).

There are several initiatives that are a testament to increased international engagement. The Global Centers initiative, created by Global Affairs, focuses on using collaborative research practices as steppingstones or guide stones linking UC Davis to the rest of the world in terms of technology, diversity and innovation (UC Davis Global Affairs, 2022). The Global Strategic Plan is the document responsible for this action. Part of this plan includes utilizing resources to meet Sustainable Development Goals (UN 2015), which are on a broader and more global level. Concrete initiatives and facilities include the Davis Chile Life Sciences Innovation Center and SDGs internship (UC Davis, APLU, 2020), which prepares students for practical work uncovering SDG solutions.

International Programs at MSU

MSU has “made internationalization a priority for the institution” (Beck et al, 2017, p. 5) and shows commitment to building inclusive campus communities, to connecting the local and national with the global, and maintaining excellent research quality (Beck et al, 2017).

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MSU has a comprehensive international program, congruent with its global goals. MSU has dedicated itself to international learning and offers curricular pathways through service learning, research, internships and improved learning outcomes. Diversity and managing enrollment have been at the forefront of MSU's policies, and the university offers services for enhancing the experience of international students (Beck et al, 2017). MSU has strived to internationalize and broaden its scope and horizons.

MSU has an Office for Education Abroad, where students who study in different programs can engage in workshops, service learning and curricular experiences (Beck, 2017). Uptake of international students has increased dramatically in the past decade or so, with 7,264 international students in 2017 enrolled in 133 programs. The university launched an advisory board to assist international students with integration (Beck, 2017).

There is also a center for International Student Counseling Services, Global Impact Initiative (which assesses progress and priorities), Strategic Vision and international data analysis, monitoring the success of domestic students abroad and international students at MSU. The IDWG is the International Data Working Group, and it meaningfully analyzes data to predict research capacities and directions for Eurasia and Europe (Beck, 2017).

MSU builds on and pursues global research opportunities, seeks to enhance visibility in Eurasia and Europe, offers services to international students, and has created special advisory boards and branches to make international students' learning experiences more meaningful. Research leaders and teams drive programming at MSU that is decidedly global-oriented. Through pursuing research opportunities with other institutions and on international levels—with stakeholders from other countries—the university builds its repertoire through immersion. That is, students engage in meaningful cultural experiences.

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International Programs at Penn State

Penn State is intentional on global engagement. Its Strategic Plan (2020) devotes a specific goal to Enhancing Global Engagement. Penn Global is the unit that carries out the global engagement mandate for PSU. This office developed the Global Engagement Network or GEN which is mainly a database for faculty, staff and students to log their engagement activities. GEN is a strategic partnership network that fosters collaboration between international institutions not only to solve pressing global challenges using multidimensional approaches, but engages students, faculty and research. The multipronged approach to global engagement focuses not only on internationalizing the campus community through bringing in scholars and students, but also on sending faculty, staff and students abroad to build competence and raise Penn State's reputation. Partnerships help to secure service, research and teaching (PSU Global, 2022).

Penn State's unique program Experiential Digital Global Engagement (EDGE) is an exchange program located in the digital realm, based on the Collaborative Online International Learning program (COIL). EDGE enables global education and accessibility regardless of student location or mobility. The program centers on collaborating remotely and teaching remote communication skills, digital skills and intercultural competence (PSU Global, 2022).

Charles, a leader in global engagement at Penn State, stated "we are really trying to find applied situated culturally responsive work"; and Cacao for Peace is probably an excellent example of his strategic vision. This initiative, illustrates bilateral, mutually beneficial partnerships between a land-grant university and multiple national and international stakeholders with both a social justice vision and an economic development goal. Cacao for Peace aims at revitalizing a rural sector that has suffered from narcotics production, drug trafficking, and the associated violence. Its vision is to improve rural well-being through agricultural development

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that is inclusive and sustainable with positive impact on cacao farmers' incomes, economic opportunity, stability and peace. The increasing global demand for chocolate is an opportunity for Colombia to become a worldwide supplier of cacao. A robust cacao industry can provide a strong alternative to coca production and economic opportunity for small farmers and their families. This program has over 20 partners including: International Center for Tropical Agriculture, Colombian Corporation for Agricultural Research, Colombian Cacao Producer Association, United Nations Office of Drugs and Crime, U.S. Agency for International Development, U.S. Department of Agriculture Foreign Agricultural Service and two other American universities.

International Engagement of Land-Grant Universities in the Era of Globalization

As societies continue to increase their interdependence and the global village (McLuhan, 1960) remain an appropriate construct to characterize communities' interconnectedness, land-grant institutions are asked to work with communities as partners to holistically understand and address their needs (Gee, 2010).

The international engagement initiatives described above mirror the social trends of the network society. That is, community organizations are increasingly connected to entities in distant locales through partnerships based on shared interests and mutually beneficial goals. Land-grant universities, being responsive and adapting to this global context, undergo a series of internationalization activities (Hudzik, 2011): organizational restructuring, pursue of international partnerships, embed global perspectives in the curriculum, continuing with international student and faculty exchange, and more.

Internationalization represents the integration and alignment of university's internationalized goals, programs, curricula, and culture. University's strategic planning is to

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bring coherence and cohesion to internationalization efforts. For instance, the organizational restructuring these three universities underwent since mid-nineteenth century onwards is part of a bigger and encompassing plan. The plan dedicates specific resources and talent to engagement initiatives presenting an international focus. And so, the sample universities have restructured or created the following units: Office of Global Affairs, Global Engagement Office within the College of Agricultural and Environmental Sciences, International Studies & Programs, World Campus, Global.

Land-grant institutions are motivated by various factors and forces to promote internationalization which can vary from academic, socio-cultural, political, and local or national reasons (Hudzik, 2011). More specifically, motivations may include profit or revenue, demand absorption, educational benefits for students, social and political integration, strategic alliances, professional development, reputation, research, and knowledge production (Johnstone & Proctor, 2017). Undoubtedly, land-grant institutions can increase their research capacity to be up to par with other nations in this knowledge economy (Collins, 2012)

The international engagement vignettes presented in this section, do not contradict the values put forth by the Kellogg Commission in regard university-community relationships. The idea behind engagement is to extend beyond outreach and service to be more sympathetically and effectively involved with communities of all types through redesigning the teaching, research, extension, and service functions of the institutions (Kellogg Commission, 1999). Thus, internationalization activities support land-grant's educational relevance in the 21st century by advancing a current engagement model and boosting access to higher education for individuals from all backgrounds and locales. Moreover, supporting post-secondary internationalization

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activities, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) has placed globalization as a top priority for higher education (Li, 2018).

The international engagement diagram, (Figure 7) makes visible the partnerships between the university and communities in a more distant location. The partnerships are still occurring in intermediate interfaces since the land-grant university context is indeed the global society. Additionally, internationalization-at-home efforts represented by the white cyclical arrows are equitable and inclusive practices for land-grant universities that serve as people's universities.



Figure 7: Example of engagement partnerships in the international intermediate interface

RQ 3: Integration of local and international engagement

Community networks are created and maintained through relationship building and partnerships

The local and international engagement imperative is pervasive in the sample universities. Institutional documents examined, programmatic initiatives explored, and interview participants have indicated prolific engagement activities both domestically and abroad. This section focuses on the intersection between national and international engagement. Participants have mentioned local occurrences affecting the intermediate context and vice versa, international phenomenon affecting the domestic context; also, they have mentioned university engagement programs where proximate and distant partners are interwoven and integrated. This study, utilizes the expression global engagement to conceptualize the intersection between local and international processes and their interconnectedness in the land-grant university engagement.

Participant Camila points out the interconnectedness of local and international: “local and global are deeply embedded in each other; you can't live one without the other” and continues with a clear example: “The pandemic reinforced what many of us knew, whatever global is happening, it's locally impacting and whatever locally is happening is impacting a much larger global picture”. Participant Charles recognizes this global interconnectedness and utilizes it to educate domestic students with an international mindset, at Penn State where a relatively low percent of Penn State students are able to join a study abroad program. In Charles' words: “So how do we claim to graduate globally competent students? Well, we have to do global and local together.” On the other hand, participant Gabriel expanded on the need to anchor international initiatives in the local:

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We can't really leave out one or the other. The global engagement without bringing in local engagement doesn't really work as well. The place that you're in, the community that you're centered in is the central piece in this global engagement. If you don't have that, then you're just not grounded. If you don't have that connection with the local, you are not grounded where you need to be, anchored into connections with the community.

Interest alignment seems to be a priority for long-lasting community partnerships and networks. Alignment of interests means that stakeholders involved have fundamentally similar priorities and directives or incentives. Aligning interests can mean, for instance, mutually sharing the goal of social justice, increasing equitable opportunities for individuals, research advancement, or developing an artistic field. Simple stated by participant Andi: "it's really important that you create wins on both sides." Participant James from MSU speaks to the benefits of these collaborations between the university and partners across the region and the world:

We try to bring together the thematic strengths of our institution with regional expertise and unlock the value that brings, through partnerships and collaborations. We call it a themes regions relationship strategy. And then, if we just try not doing this by ourselves but really start to collaborate with our global partners, in those regions where we're working, then we get something that's really special, and we get something that's sustainable and scalable.

Additionally, Camila summarizes basic principles for global engagement:

I think there's a power on collaboration. The intentionality is critical. And recognize that you learn from difference. So you want to have different voices around the table,

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voices that might be contradictory, or voices that bring completely different set of experiences, but that's exactly how we learn.

In certain engagement initiatives, the role of the university as a connector withstands even after the university has finalized its formal partnership with a community organization. Once the university steps aside, community entities continue partnering with one another to achieve their own goals. And, at times, the partnerships happen to be between community entities in the domestic arena and communities in the international arena.

QS (2019) notes internationalization within education institutions is growing rapidly, and there is a need to form strong domestic and international partnerships. Today, about one fifth of scientific papers in the world is co-authored globally. Communication, travel and expansion methods have made this possible. Researchers and academics find it easier to collaborate with those from other countries. Idea exchange becomes more accessible (QS, 2019).

The universities drive global engagement networks operating in the intramural, intermediate, and extramural interfaces of the university. For example, UC Davis Global Affairs fosters internal articulation with the Office of Public Scholarship or Native Studies (intramural interface), administers international partnerships in Chile (intermediate interface), and manages over 10,000 international students, leaders and scholars that will eventually insert themselves in external networks bringing UC Davis learnings to other parts of the world (extramural interface).

Provided below, are illustrations of global programs intersecting both local and international engagement for each sample university

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Global Programs

Global Programs at UC Davis

The most salient initiatives at UC Davis that interconnect students, faculty and staff with local, regional, national, and international communities is Global Education for All, “where we want 100% of our students to get global engagement, global learning opportunities by the time they graduate and that includes undergraduate, graduate and professional students” (Camila). This initiative responds to an increasing demand for a workforce with distinctly global-oriented skills, such as communication, technology, remote engagement, etc. in both the public and the private sector.

UC Davis Global Affairs has taken the charge of publishing the institution’s Voluntary University Review (VUR) (2021). The VUR details how effectively UC Davis has been meeting its United Nations Sustainable Development Goals agenda. These Sustainable Development Goals include the following world-wide aspirations: no poverty, zero hunger, clean and affordable energy, responsible consumption, reduced inequality, environmental initiatives and better equity and access to resources for disadvantaged groups among others. This activity ensures that university members remain globally engaged (UC Davis, 2022).

Local and global initiatives intersect also in the Global Centers, which offer learning opportunities for UC Davis students in Asia, Europe and the Pacific medical centers as well as taking care of the needs of a burgeoning international student population. UC Davis Strategic direction to establish medical centers catering to local communities attracts an array of experts and specialists to present to and engage with stakeholders (UC Davis, 2018). This provides students with opportunities to study and apply medicine within the campus, with assuredness that

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their efforts matter on a global scale. COVID-19 pandemic and other health issues become preliminary global concerns, with local action, community and learning networks.

Global Programs at MSU

MSU wanted to foster global engagement in learning both outside of and inside the classroom, demonstrating attitudes, skills and knowledge required to be part of the global world. Skills like communication, citizenship, critical thinking and reasoning (Wiseman, 2018) give students the tools to succeed in America's local business environments, which inevitably include diverse publics and communities. MSU "made a noteworthy effort to bring the various perspectives on global competencies together in the Liberal Learning and Global Competence Framework" (Wiseman, 2018, p. 3). The programs combine competencies under the Liberal Learning and Global Competence Framework, where they integrate global and liberal learning goals.

MSU's Green Campus, along with its sustainability orientation and goals, appear both in the local and global realms. The university won an international gold rating award for advancing sustainability in post-secondary education (MSU, 2022d), suggesting the campus considers the opinion of international leaders and organizations specializing in environmental sustainability. At the same time, the campus includes sustainable and green technologies, as well as gardens available for its student body (MSU, 2022d). Efforts to promote sustainability include decreasing carbon emissions, minimizing waste from food and utilizing a solar carport to power MSU's large campus, entail both local and global considerations. The university offers over 600 independent courses on experiential learning, curriculum and the role/impact of sustainability. By the year 2050, MSU's plans are to achieve climate neutrality, continuing to embed sustainability in the campus' culture. MSU will work with other institutions and leaders in

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knowledge sharing and policy formation (MSU, 2022c). The university would offer these courses to both domestic and international students.

A last example among many other MSU's global initiatives is the Tanzania Partnership Program (TPP), co-created with two other Tanzanian university partners. A private family foundation had expressed an interest in supporting work at MSU working toward the elimination of poverty and hunger and Africa. Participant James explains:

The model that emerged was one where universities here and in Tanzania would partner with local government, as well as community members in two pilot communities in Tanzania, one in the northern part of the country, one in the southern part, to engage local communities in the identification of development challenges, prioritization of those challenges, ideation and co-creation of ways in which those problems could be addressed. Co-implementation, and then, you know, monitoring evaluation and learning around those activities.

Networks emerging from TTP global engagement are still in place. Other TTP networks have been redefined in the university extramural interface with universities stepping aside and having the community partners acquiring total ownership and connecting themselves with new stakeholders. For example, the school feeding program became fully supported by the community and they brought in "nutrition experts who could look at the food composition to determine the extent to which it was meeting government standards for nutrition and so forth." (James)

Additionally, multiple other partnerships emerged spontaneously: faculty and students from Tanzania and MSU would conduct collaborative research in nutrition and then use that data for the betterment of communities; student exchange programs; Tanzanian visitors would

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integrate with local Rotary organization, etc. James describes these partnerships would occur in a horizontal level:

[TPP] would allow, sort of those relationships that you often don't think of in coming together in, I don't want to say a perfectly horizontal way, but certainly a flatter set of interactions that lead to communities having strong say in how development activities are sort of thought of and conducted, and then universities partnering with local government, in order to really achieve some of the collective goals.

Global Programs at PSU

One Penn State 2025 is a recent initiative working toward achieving a university that offers a seamless digital and offline environment, aligning certification and other programs, developing multiple pathways to student success and accreditation, engaging lifetime learners, and efficiently making use of existing and new resources. Digital research, innovation and communication will ensure the organization is efficient, while a seamless experience means increasing access to the campus, mobility and online access to programs. This is called a “24/7/365 online experience” (PSU, 2022), where students will have consistent access to resources and services. In addition to this, news from PSU (2021) details a symposium that occurred, where stakeholders, including academics from the university, got together to discuss membership, FAQs, promotion of events, and guiding principles. They shared One Penn State’s current goals, strategic directions and success (Penn State, 2021). One Penn illustrates PSU’s commitment to offering a global educational experience, for both international and domestic students, centered on increased points of contact, accessibility and student-centered autonomy.

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Penn State has made a thoughtful effort at integrating domestic and international students, while providing a comfortable space for the latter, who are adjusting to cultural differences. Diversity and inclusion conversations, generated through the collaboration of Penn State's President with other stakeholders at the university have culminated in the World in Conversation project, which encourages dialogue between ethnic minorities and majorities within the United States. In the year 2014, the program expanded to Middle Eastern international students, and then to Chinese students in 2016. In 2019, the program received economic support from Global Programs, recruiting 80 international students and working with 2,400 domestics. The university conducted surveys showing up to 74% of participants agreed it was critical to think about integrating global communities on campus (Barron, 2019). This is an example of global engagement at home.

The English for Professional Purposes Intercultural Center (EPPIC) at the College of Liberal Arts offers advanced English language support services to multilingual students and scholars for academic achievement and increased involvement in university life. Workshops and tailored programs for professors, staff, and advisors improve multicultural understanding and inclusive communication (Barron, 2019). This is critical for facilitating successful outcomes in Penn's international student population and displays commitment to the theme of moving Penn State in a global direction. The Global Engagement Community, also called The Center, is a recent initiative and serves as a learning hub specifically for culturally oriented domestic and international students (Barron, 2019).

Another global engagement initiative is The People's Kitchen, which represents a network between PSU Outreach & Engagement, Penn State Center in Philadelphia, restaurant owners, and undocumented and/or displaced food services employees, among others. During the

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pandemic, The People's Kitchen stakeholders came together to find solutions for the devastated restaurant industry and food insecurity. "They partnered together, found donors willing to donate the food, chefs worked with community members to provide training and to provide access to food. That program has then been taken over by the community members and the university has taken a step back" (Andi). The People's Kitchen is an award winning initiative and the Director of Penn State Center in Philadelphia, Shivani Selvaraj, was recognized for this program.

Participant Luca adds:

This particular initiative was just phenomenal. It scaled to include a number of organizations, it took on a life of its own, whereby now, the Philadelphia Center, just serves in an advisory capacity. There's an internal infrastructure that actually is self-perpetuating and it continues to grow and evolve. They are now identifying other priorities beyond the initial ones that brought them together.

The university is institutionalizing integration and effective collaboration of global and local engagement through setting up facilities for cooperation for both students and faculty members and incorporating the concerns of international students into support networks traditionally offered to domestics. For instance, the 24/7 support network offers support, guidance and academic services to both domestics and internationals, and remains remotely accessible to international students, who may have a more difficult time accessing in-person assistance. Simultaneously, The Center is an architectural piece designed for collaboration and cultural learning between domestic and international students.

Global Engagement of Land-Grant Universities

Research questions 1 and 2 explored the local and the international engagement processes of land-grant universities in the era of globalization characterized by the network society

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(Castells, 2000) fueled by the knowledge economy (Collins, 2012). Research question 3 focuses on the intersection and integration of said engagements. And, as mentioned previously, this research study utilizes the expression “global engagement” to conceptualize the interconnectedness of land-grant university local/international engagement.

The global engagement initiatives illustrated in this section depict collaborative relationships, thematic or common interest-based partnerships, and networking activities amongst local, state, national, regional, and international stakeholders. Figure 8 diagrams the network involving local/state/national stakeholders (red color circles) and international stakeholders (green color circles). Based on this research, a network implies the presence of three or more stakeholders or partnership agreements.

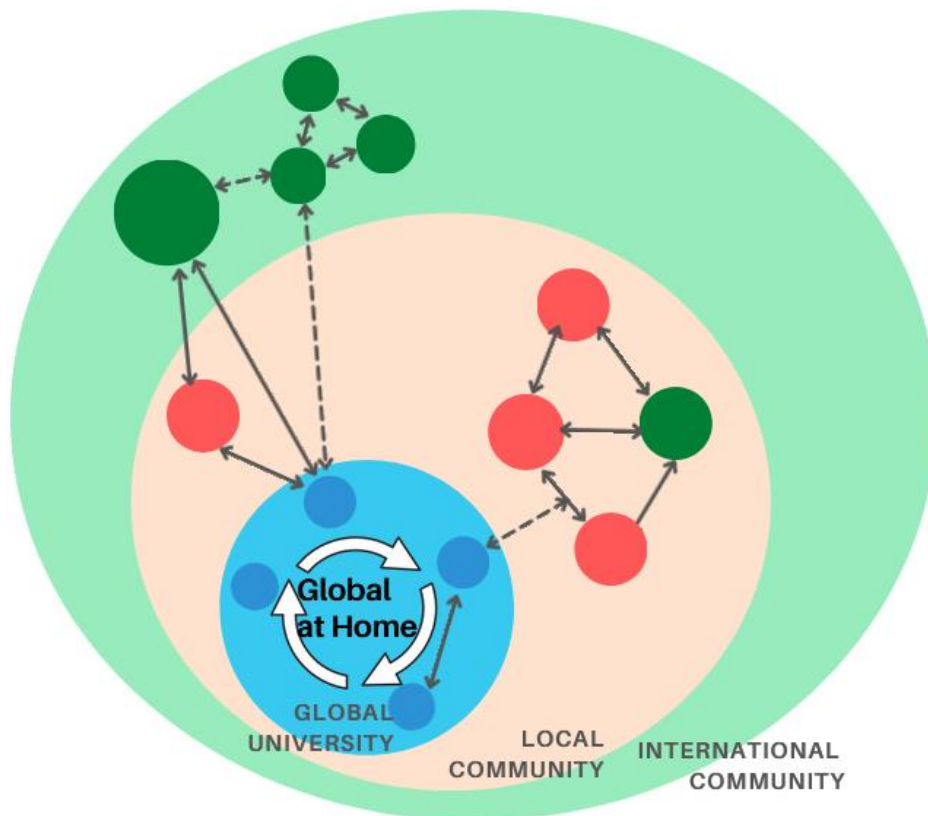


Figure 8: Stakeholders integration and global networks

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According to the data, networks seem to be systems of interconnected stakeholders traversing a variety of formal university units as delimited them by the university's bureaucratic organization (Figure 9). It is apparent that global networks mainly operate in the midst of horizontal university interfaces (Figure 8) rather than within the vertical or hierarchical administrative structure. As previously discussed, the Tanzania Partnership Program and the People's Kitchen are global engagement initiatives accounting for partnerships in all three interfaces of MSU and PSU respectively. TPP and People's Kitchen even exemplify extramural partnerships that had been initiated by university partnerships. Figure 8 visually represents integrated local and international partnerships in a global engagement network. The networks operate in the intramural, intermediate, and extramural interfaces. And Figure 9 represent the modern hierarchical organization with the various units enacting university engagement.

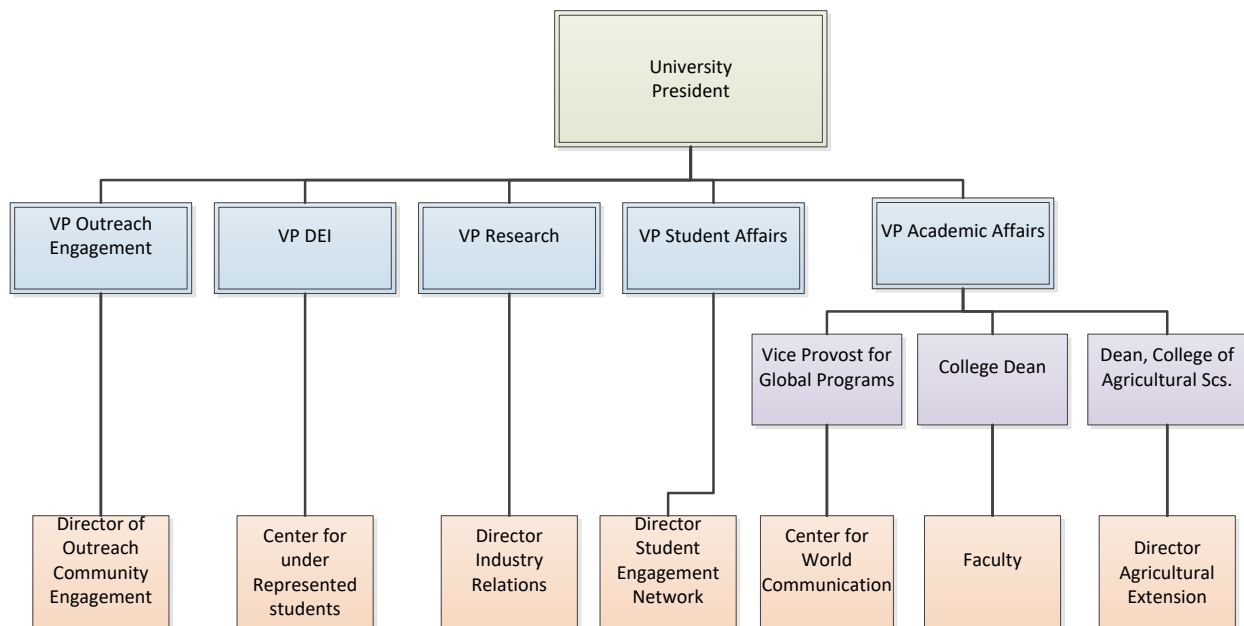


Figure 9: Hierarchical organization

The sample universities have shown commitment to the public good and the frameworks for local/international engagement are both distinct and integrated depending on the university

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initiative, program, or activity. The data reviewed thus far is collectively a testament to the solid effort UC Davis, Michigan State, and Penn State have made toward incorporating global engagement. From a local perspective they continue to take care of its community by fostering diversity, working with local publics, and positioning themselves in global conversations. Regarding opportunities to integrate the local and the international, Camila smiles and affirms: “Of course it is possible, it’s easy. In fact, I would say it’s extremely easy. I think the driver is the commitment.”

RQ 4: Institutionalization of Global Engagement

The three sample universities have documented their clear commitment to local and international engagement. Further, these universities are routinely assessing and improving initiatives for the betterment of the public good in a global sense. The universities’ relational approach to engagement in the context of the global village (McLuhan, 1960), that is a world that shrinks rapidly with more multicultural diverse regions (Dixon, 2009), seems to have positioned them as nodes within Castell’s (2000) network society. The universities acting as connecting nodes are actively integrating local and international engagement processes.

In this section, I organize the data aiming to respond the fourth research question in four different themes: university as a connector, networking and soft-skills as facilitators of engagement, partnership challenges, and institutional assessment practices as forces that mold the institutionalization of global engagement.

Institutionalization or structuration is used interchangeably following Barley & Tolbert’s (1997) theory that emphasizes the degree to which institutions vary in their normative power and their effect on behavior. Barley & Tolbert define institutions “as shared rules and typifications that identify categories of social actors and their appropriate activities or relationships” (p.96)

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and they expand: “One can think of institutions as abstract algebras of relations among members of social sets. From this perspective, institutions are to social action as grammars are to speech.” (p. 96). Therefore, institutions (or structures) are both a product of human action and a constraint on behaviors. Barley (1986) proposed that institutions are enacted through ‘scripts’ which are “observable, recurrent activities and patterns of interaction characteristic of a particular setting”. (p. 98). In this context, institutionalization of global engagement is understood as the longitudinal process by which university actors create tangible and tacit structures and act in relation to those structures.

The world, moving toward a more integrated rather than separated nations, has become a global village in the sense that we are no longer dependent upon geographic proximity for communication, knowledge exchange, leisure and even entertainment. The university, in a similar way, mirrors these patterns, with research, teaching, and engagement being practiced and shared beyond the proximate local. Digital technologies help university actors extend their functions beyond their immediate setting. The growth of internationalization in post-secondary education also increases multicultural diversity at-home.

University as a connector agent

The university acts as a connector agent between community constituents. Participants’ responses indicated that the university’s connectivity direction goes from the local to the global and the global to the local and that it is vital understanding what the contextualization of each particular engagement initiative is. In the knowledge economy, universities are local harbors or anchors that serve as “points of stability” (Benneworth & Hospers, 2007, p. 779) within a certain geographic region, while they can attract knowledge capital and outside investment. Universities thus generate local buzz, while they work on constructing networks that garner the attention of

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foreign investors, subsequently facilitating innovation (Benneworth & Hospers, 2007). In other words, universities generate revenue externally, from the international context, by being ‘local’ anchors within a community. On the importance of remaining relevant to local needs, Charles affirms that even though universities may develop the same type of disciplinary-knowledge, it is its adaptation to the local context that will make it “relevant and impactful.” Charles states it is necessary “accounting for physical infrastructures, but also social dimension, cultural dimensions, legal regulatory environments, and so on.”

As an example of local to global and global to local interactions, participant Gabriel mentioned two examples. First, he explained how UC Davis researchers working alongside Californian organizations in a livestock issue may join the National Association of Beef Cattle and then an international organization like the Food and Agriculture Organization of the United Nations to work together and find solutions to a pressing problem for both local and international context. “It really starts smalls, as that work progresses and builds up, then you communicate outside, and then sort of the network will grow and will attract others” said Gabriel. He also offered the example of a climate change initiative. “People from outside California will react, they will hear about what's going on here, and they want to learn from it. And so you get people coming in for a visit. [...] And so you kind of expand your network.” Networks expand as activities and engagement programs become more collaborative and extensive. Gabriel noted engagement initiatives tend to start small and build momentum as collaborators become interested in participating.

Connections generate and expand in thematic collaborations. Constituents from domestic and international arenas come together and organize around common goals and themes. Participant Bennett explains the additional example of a program called Food Plus Detroit. The

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founder is Renee Wallace, a community member ‘involved in urban food issues.’ While the program is in Detroit, urban food issues exist all over the world. Here, there is an opportunity for outside stakeholders and global collaborators to become involved or research Food Plus Detroit as a program.

The Universities’ Strategic Plans support and promote the institution’s engagement with the public. It is plausible to say that the institutionalization of the organization’s connectivity role is warranted by the university-wide Strategic Plan. All three sample institutions have published university-wide strategic plans that include a global engagement component. Moreover, the vast majority of academic units’ strategic plans also incorporate a call to global engagement. These can be understood as part of the “encoding” moment in Barley and Tolbert’s (1997) institutionalization model. The formal organizational goals, rules, and procedures, often define scripts that are embodied or enacted by individuals. As Charles remarks about university global engagement “It’s not just paper, it is action.”

Partnership Enablers

The university carries out its connector role through partnerships with multiple constituents. Participants abundantly referred to networking and soft skills as facilitator mechanisms or instruments for these partnerships. Bak et al (2019) notes soft skills can be difficult to quantify, since they are qualities like negotiation and flexibility. Increasingly, as people work in diverse working environments, they must possess soft skills, which are more transferable than hard or technical skills. Networking is important for universities as they use this method to communicate research and ideas. While networking certainly involves knowing how to use digital communication technology, it also requires collaboration, flexibility and negotiation, as suggested by Bak et al (2019).

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Table 3 is a list of participants' accounts of partnerships' enablers.

Table 4.3: Partnership Enablers

Networking and soft skills facilitate partnerships
Articulation across university units
Communicating initiatives internally and externally
Community ownership
Identifying key stakeholders
Ensuring relationships and multi-stakeholder investment
Database
Infrastructure
Seed funding and grants
Short term impact
Support to faculty on engagement skills

Engagement involves both formal and informal relationships with multiple stakeholders; articulation across internal stakeholders means working cooperatively across university units in order to bridge siloes and redundant activities in the bureaucratic organization. Various participants talked about this, for example, Gabriel affirms UC Davis College of Agriculture has a Global Engagement Unit that closely works with Global Affairs; Mark points out that the International Programs Unit at MSU has a strong working relationship with Outreach and Engagement unit. As an example of a formal unit articulation, Luca mentioned the Office of Student Engagement Network is sponsored by three major divisions at Penn State: the Division of Outreach, the Division of Student Affairs, and the Division of Undergraduate Education.

Communication is a key element for the partnerships to take place. Participant Camila elaborated on internal and external communication, she said “I think telling the story is actually extremely important and something that it's unrecognized by many.” To this end, UC Davis Global Affairs created a Communications Cluster within that office and they utilize multiple

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media to share a cohesive message, “to tell our story”. An example is the Global Aggie series to highlight its student body and faculty, their experiences and their impact in the community.

Internal and external communication refers to modes of communication within the organization and with outside stakeholders. Reka & Borza (2021) note internal and external communication is part of organizational communication. This form of communication exists within the internal organizational structure and can extend into the external realm. On internal levels, organizations frequently utilize oral/verbal methods, such as meetings and spontaneous discussions (Reka & Borza, 2021). By contrast, external communication can consist of e-mails or chat sessions via teleconferencing platforms, since they tend to be more formal.

To ensure the sustainability of engagement initiatives, participant Andi recommends empowering communities involved and giving them program ownership. As she has experienced: “The program has then been taken over by the community members, and we’ve taken a step back. [...] They have to take ownership, they have to accept responsibility.” She also highlights the ability of engagement officers to identify key-stakeholders in their work with the public. According to Boesso & Kamalesh (2016), stakeholder salience theory suggests that perceptions of stakeholder legitimacy, urgency and power influence salience, or what priority actors give to stakeholders. Identifying key stakeholders means setting up the appropriate organizations for delivering results and initiatives. Stakeholders could include community organizations and members, churches, staff at local restaurants, chefs, suppliers and even institutions like the YMCA. Andi says “we actually work with whoever it takes to make it happen and we get very creative at finding those folks.”

An intentional and dedicated investment in relationship building seems to be vital to foster engagement partnerships. It is preferable favoring a time commitment to ensure

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relationships, rather than mere brokering, participant Bennett said the following: ‘The big criticism that came from the research on brokering is that [...] if all your emphasis is on brokering and not on the relationship itself, you're going to burn up all the people who might be your partners pretty quickly.’

Additional partnership enablers offering especial support and training to faculty, students, staff, and community members wishing to engage in partnerships whether summer intensive programs or daily availability of guidance and resources. For example, the Academy for Global Engagement, AGE, is an initiative to improve faculty professionalism and development, expanding MSU’s research throughout the world (Beck, 2017). The Global Engagement and Leadership Experience (GELE) program aims to foster tolerance and inclusion toward global communities, many of which are increasingly present on Penn’s campus. GELE is a retreat, lasting a total of 2 ½ days, with leaders from Global Programs, bringing together US and international students. During the retreat, students learn about the dynamics of power, development of personal identity, and how to enact global leadership. They engage in activities, debates, simulations and important conversations (Barron, 2019).

All participants talked about the importance of databases to keep a record of existing university partnerships. This is important for potential new members to identify collaboration opportunities. Bennett says that MSU is in the process of putting together a platform students can access to look up meaningful engagement experiences. Beyond the institutional engagement, Bennett noted how this database has positive implications for students’ development while in college: “Through engagement experiences, you can identify what and where your passions are, why you want to do the things you want to do, and where that path may lead you.”

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Availability of infrastructure also appeared as a significant element. Mark noted there are data centers for critical projects like the College of Business, EdPsych and College of Education. Accounting for infrastructures means learning regulatory environments, adapting knowledge and building value, as well as catering and adapting to local contexts. Camila reaffirmed: “You have to provide support, funding or information. You have to create the support infrastructure, that's something I'm very conscious about it.’

Another indisputable resource that supports the integration and institutionalization of engagement is funding. Seed funding and grants are available externally through multiple local or international agencies (UN Sustainable Development Goals, NSF, others) and internally through higher level university offices. Andi mentions that “seed funding helps” if the university wants to build a center in a different community and requires start-up capital. The university then goes onto leverage support from local community groups. Participants mentioned many seed funding programs related mainly to the United Nation’s Sustainable Development Goals program or grants through the National Science Foundation. A way to maximize seed-grant funding is securing short-term impact. Andi noted short-term projects “are a great way to get your foot in the door.” Even students can assist with short- term projects through collaboration and fostering diversity.

Partnerships Challenges

Inevitably, COVID-19 presented major challenges for developing local and international partnerships between students, faculty, staff, and external constituents. For nearly two-years now, in-person relationships drastically stopped, and individuals had to adapt to on-line outreach engagement. Alana explains how telecommunication may have helped shorten distances for

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international engagement but ironically increased the relational distance with proximate communities:

Meetings like this and being able to do this on Zoom, I feel like wasn't as normalized before the pandemic. So in one way, Zoom has created this amazing networking possibility. Just in terms of being able to. So globally, we can do this very easily. It's a little less easy to do that locally, which is ironic. For example, we're trying to protect local tribal elders so we are not visiting with them right now, and making sure that there's a space. So it's an interesting thing, where it's been very easy for my perspective to speak with people in network globally, in this format. And so the challenge becomes then, not only not being able to invite people to campus from Malaysia, or Greenland, but also the in-person conversations, what we're used to when we say relational approach is much easier to do in person.

Effectively, there has been an increase in telecommunications with communities digitally dispersed and fewer local connections. Kaya & Kuruc (2020) note COVID-19 has had a major impact on increasing telecommunication within higher education. The authors suggest that only institutions that can adapt to digital communication will survive and thrive. Higher education is also increasingly multicultural, which necessitates digital communication across dispersed networks.

Table 4.4: Partnership Challenges

Partnerships challenges
Pandemic impact
Nationalism-isolationism
Tension between global and local
Intercultural misunderstandings and linguistic divide
keeping track of collaborations-networks
Institutional silos
Insufficient funding
Sustainability/participants' turnover

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Nationalism and isolationism trends during the Trump presidency may have decreased faculty incentives to seek out partnerships in the international arena. McTague & Nicholas (2020) note Trump fallout with the UN may have changed world perceptions. Likewise, the perceived tension between research, teaching or service in the domestic context and the international context can discourage faculty members engaging with global processes. Expanding on faculty research, Gabriel noted that “You don't get any brownie points on your packet for merit and promotion for specifically international engagement”; however, he continues, “research conducted with international collaboration has much more visibility and therefore more impact than individual or domestic-only research.”

While multiculturalism and multilingualism enriches exchanges it is also true that without multicultural awareness and appropriate linguistic knowledge, there is greater risk for miscommunication and misunderstanding. In the case of inbound international students, referring to the linguistic barrier, Charles noted “it's not always easy” as there is an increase in diversity within the student body, mostly from Asia. International students require language resources, inclusion and access, as well as admissions materials. “Crossing the linguistic divide is an important challenge” remarks Charles.

Based on participants' responses, another critical element that may hinder partnerships is not being aware about existing network collaborations. So ensuring that the university keeps track of local, regional, and international networks is important. While these network collaboration tracking attempts have mostly been successful, they remain complex systems involving multiple actors and rely on themselves to enter the data in the system. This data entry is time consuming and time may prove to be a scarce resource.

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Many of the university divisions and subdivisions function autonomously, which can lead to limited interconnectedness and institutional silos. Bennett emphasizes a potential disjointedness between initiatives and offices:

Being a large, decentralized research university means in part, that faculty has a great deal of autonomy. [...] academic units are pretty autonomous from one another and at a fairly good distance away from the direct pressure of a president's office or even a provost office.

On the same note, Gabriel wishes there was more connection between different faculties and divisions, such as Global Affairs and Public Engagement Office. While there is a global and local division, “How do you then put the two together?” asks Gabriel.

Participants talked about the need of funding in order to finance engagement initiatives. State appropriations, private foundations, federal organizations, philanthropists, private industries, individuals are some sources of global engagement initiatives’ funding. Institutional scandals such as Larry Nasser’s¹ sexual abuse case, indirectly jeopardize global engagement funding. In Bennett’s words:

One of the outcomes of the Nasser experience was that a major international funder pulled back in funding some of our international work [...] There was absolutely nothing about the crimes that were committed here that had anything to do with our international work. But it was an issue of reputation.

¹ Larry Nasser was a sports physician and he was employed at MSU from 1997 to 2016. He admitted in court to using his position as a trusted medical doctor to sexually abuse young girls and women who came to him for medical care in different settings for about two decades. More than 300 hundred women and girls had the courage to stand up and refuse to be silenced. Nasser harmed hundreds of victims including 31 who were MSU students. He was sentenced to more than 100 years in prison. Rachael Denhollander, the first person to publicly accuse Nasser of abuse, after the 500 million dollar settlement from MSU, said: “This was never about money. It was always about shifting culture from enabling abuse to empowering survivors”. [CNN, 5/17/2018]

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This is a testament to the interconnectivity of local and global process. The institutional scandal made the funder withdraw financial support impairing the continuation and sustainability of certain international initiatives.

The sustainability o continuation of engagement initiatives is also tied to the availability and disposition of engagement partners. Personnel turnover due to retirement, graduation, transfer, and other large variety of reasons, can affect the continuation of programs and activities and compromise university engagement initiatives.

Table 4 above summarizes the challenging presented in this section.

Assessment Practices

A salient theme that emerged from the document analysis and the interviews was the institutional assessment of their engagement activities. All universities in this sample have an established institutional research unit dedicated to study university performance. This institutional research provides an empirical foundation that will inform administrative decision-making.

In 2004, MSU developed an instrument to calculate university financial investment in engagement activities, the Outreach and Engagement Measurement Instrument (OEMI). This is a voluntarily and self-report system to characterize engaged work across all university units. Bennett emphasizing OEMI's data output says: "you could have a hard number of dollars that the university is investing through its most valuable asset, the labor of its faculty and staff, in addressing the issues and concerns of society." And he adds:

But honestly, the thing that came to matter the most on the part of the administrators, frankly, were the stories; because, beyond simply counting how

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many faculty engaged 10% and adding up all those 10 percent, the system was collecting vignettes about the actual work.

The stories collected through OEMI would ultimately inform new connections among individuals and support a growing networking opportunity.

Interview participants indicate that the promotions and tenure (P&T) process is a driver in university engagement. P&T outlines the evaluation criteria for faculty members to advance through the academic rank. Generally, faculty need to submit a dossier including evidence of excellence in their performance on research, teaching and service. Dixon et al (2021) notes tenure and promotion is a field of study in post-secondary education that has rapidly expanded. It can include comprehensive evaluation committees, Quality List controls and dean's lists. School Associations can also guide or influence which professors receive tenure. They impose certain constraints on what material scholars can publish (Dixon et al, 2021). This is important since faculty, having limited time, will prioritize the fulfillment of their duties as stated in their employment contract and the P&T guidelines. Gabriel mentioned that "faculty have been told not to do international engagement or global engagement when they first start out, and until they become more established, because it takes more time." Although, he does not agree with that approach and tries to convey to faculty members the added value that comes with international research collaboration:

If you are internationally engaged, you have much more impact than when you're just working on your own. I was actually showing this slide yesterday to a new faculty orientation. When you are publishing a paper that's published by just one institution and a paper that's published with collaboration with other institution, the one that has collaboration was three times more impactful than the one with

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just an institution itself. So it shows that your work becomes much more impactful if you're collaborating, if you're working in collaboration with other institution internationally. So I think that's incentive enough, people want to have an impact on their work, be impactful. [...] And I think it does help to grow your network, and it gives you more opportunities. I feel like going international will only help your career.

In Charles' words, "faculty will do what they are recognized and rewarded for." And he continues: "At Penn State, they are rewarded for their research. So I am trying to get more evidence of global engagement into the annual review and the tenure and promotion." Charles' goal is for faculty to embed global engagement processes in their research or teaching or service. He says: "Ultimately, if faculty knows they're going to be asked to describe their global engagement, or their local to global engagement, that will probably drive change as much as anything else."

MSU has implemented a similar approach in the P&T. Faculty can represent their engaged work within the three main assessment categories of research, teaching, or service. As participant Bennett remarks, "They didn't have to treat engagement as a fourth or fifth, or some other tertiary category that isn't goanna be taken seriously." The data evidences administrative leaders widely view international research and engagement in a positive way.

Internal assessment or university regulatory examination is important and it may occur on different levels. The evaluation process of each organizational unit will affect the direction of institutional engagement. Every organizational unit is assessed to ensure the university as a whole is advancing its strategic plan. As previously stated, in this university sample, all three cases have incorporated an element of global engagement in their strategic plans. Charles

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reaffirms, “there's an annual evaluation of every unit, every college, every campus, every Vice Provost, Vice President unit, to confirm that we are addressing the strategic plan. So it is not just paper, it is action.”

Continuing with assessment practices, external examination and assessment agencies are additional forces shaping the university's global engagement activities. Institutional accreditation assesses the compliance of the universities' management, work procedures, teaching and research activities, as well as goals and development of the institution.

University rankings compare numerous factors across universities and present a hierarchical order from most desirable to least desirable institutions based on a specific criteria. According to Hazelkorn (2019), one of the disadvantages of university rankings is that there are questions about how ranking organizations collect data. An example of this could be, for instance, internal corruption within ranking organizations due to the influence of external funding offered by a prominent university. Although pros and cons of university rankings are beyond the scope of this study, the reader may access online world university rankings such as QS World Ranking of Universities, Academic Ranking of World Universities, Times Higher Education World University Rankings, US News & World Report Best Global Universities Rankings.

In the United States, the Carnegie Classification of Institutions of Higher Education, is the leading framework for recognizing and describing institutional diversity. The Carnegie Commission on Higher Education developed the first classification of colleges and universities in 1970. This classification is based on empirical data and is widely used in the study of higher education (IUCPR, 2021)

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Institutional awards acknowledge and recognize a university effort and its accomplishments. It may increase institutional reputation and networking opportunities. The university samples, as stated in chapter three, have received recognition for their international engagement initiatives from the Association of Public & Land-Grant Universities.

Institutional Enactment of Global Engagement

The three land-grant universities in this study evidence a commitment and intentionality toward engagement with both publics in proximal locations and publics in distant locations, domestically or abroad.

Utilizing Barley's (1986) construct of 'scripts', the data has showed observable and recurrent activities and patterns of interaction characteristics of global engagement institutional enactment. The patterns of interaction were grouped in four emergent themes: University as a connector; engagement enablers, partnership challenges, and assessment practices.

University actors drive connections between local to global and global to local processes through partnerships. The partnerships are based on bilateral relationships and thematic collaborations. It was also observed a thorough encoding of global engagement institutional principles in formal organizational documents (strategic plans).

There are formal or informal conditions that promote said partnerships between university units (and its actors faculty, students, staff) with local/international community entities. For example, articulation across university units bridging siloed activities, extensive internal and external communication, multi-stakeholder investment and community ownership, infrastructure support and sufficient funding.

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On the contrary, factors that negatively impact the institutionalization of global engagement in these land-grant universities are the pandemic, nationalistic and isolationist politics, lack of intercultural competence, linguistic barriers, institutional silos and funding cuts.

Universities have various assessment systems in place that are also vehicles for structuring (or institutionalizing) global engagement. Assessments range from institutional research, unit evaluation, promotion and tenure stipulations, to assessment criteria imposed externally such as accreditation systems, rankings, classifications and institutional awards.

Through the above elements or scripts, faculty, administrators, students, and university staff produce formal or tacit structures that in turn will guide future behaviors or actions. It is possible to state that global engagement is being institutionalized in the sample land-grant universities. However, there may be resistance to global engagement institutionalization as observed in the promotion and tenure assessment practice. Just as *research* is a self-explanatory activity (an institution hence, given for granted) for doctoral universities, in years to come, *global engagement* may become an institution for all land-grant and public colleges, but for now, that is a forward-looking statement.

Conclusion

The American land-grant higher education system was, precisely, the first funding partnership between state and federal governments to renew and strengthen post-secondary education for the betterment of the nation. Public land-grant universities understand the importance of historical roots and strive to attend to their foundational mandate in the new context of global society.

The purpose of this system was to integrate classical and scientific studies, along with military tactics, to teach agricultural and mechanics and expand access to higher education. The

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World Grant Ideal states “Dramatic changes in society, in knowledge, and in the nature of work have created a growing need for a more highly educated, adaptive, innovative, and engaged citizenry” (Simon, 2009, p. 1). And proposes vision to instill change in higher education and remain current to address the needs of global society (Simon, 2009).

The universities in this study iterate America’s foundational principles in post-secondary education. Today, offering a relevant education includes the international realm and the internationalization of education, as seen in the engagement vignettes, through various activities: student and faculty services, programs, curricular changes, research, student mobility, and outreach engagement initiatives amongst others. Increasing access includes the international realm as well, remains critical for land-grants, as there is a higher focus on equity and inclusion. Factors like socioeconomic status, ethnicity, gender, sexual orientation, immigration status (DACA) and international status are all concerns of land-grants universities orientation in regard to increasing access.

Global citizenship and cultural competency have become central to higher education, especially as there is an increased of internationalization-at-home. Almost paradoxically, universities remain loyal to their historical mandate through adapting and embracing new norms and ideals relevant to a globalized society. Flexibility and change are part of the new land-grant mandate. Flexibility means acknowledging the new context for higher education and be open to new ways of doing. Rigidity would only generate obsolete institutions.

There are commonalities across local engagement for all three universities. Local initiatives will often include moves toward offering sustainable solutions on campus, increased green space, inclusivity and racial/gender equity initiatives, as well as outreach engagement

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programs for community socioeconomic development or to bring more social justice. These local initiatives can be, but are not always, integrated to international networks.

The sample universities have common orientation for global engagement in concordance with the UN Sustainable Development Goals. A coordinated and intentional approach to internationalization is revealed in these universities' strategic planning. There are central offices driving, promoting, and supporting global engagement initiatives aimed at connecting research institutions, collaborating with external and internal stakeholders, and moving the university into a higher impact position. The data also showed hallmark initiatives leading an intentional approach to university internationalization. For UC Davis, the global integration would manifest in Global Education for All; for MSU's would be the Global Engagement Network; and for Penn State, the One Penn State 2025 program offers information about how Penn State will move forward into the globalized world.

The online presence for all three universities is commendable. UC Davis has set up a separate Global Affairs website, tied to its strategic orientation. This serves to create what the university calls a global campus identity, with significant implications not only for attracting and retaining international students, but for empowering and creating global citizens formed from its student body. In similar fashion, Penn Global, strategically partners with other institutions to promote collaboration, research and engagement. Here, again, there is a specific website section dedicated to global concerns and orientations.

Penn State Global Strategic Plan 2020 – 2025 highlights the way in which land-grants connect global to local, fomenting community hubs. The Global Consortium is the first step in the process. There are joint programs and appointments. Land-grant universities focus on engaging the global South, while bilateral partnerships increase multidisciplinary approaches.

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The land-grant universities attempt to unify local and global through offering teaching and research projects and programs (PSU, 2022).

Student mobility through study abroad and faculty mobility through exchange programs, are critical components that allow for the development of global citizens that come back from their overseas locations with deeper cultural awareness and competence. Academic services, green campus, research collaboration and internships display how the university almost transforms the global into the local. There is an interconnection of proximal and distant publics crossing national boarder resulting in an integration of worldwide processes.

Internationalization of the student body brings about more diversity to campus. This opportunity, which typically is overseen by offices of International Student Services can work more closely with the offices of Diversity, Equity and Inclusion to ensure safe and inclusive campuses for all students and bridging achievement gaps among underserved populations.

Research, innovation and recruiting international talent puts these land grant universities at the top of the rankings list for global engagement. UC Davis, MSU and Penn State strive to connect domestic students to international opportunities and to create technologies that serve global agendas and solve large-scale issues, such as climate change. Universities weave frameworks like the Sustainable Development Goals directly into their courses. This way, students gain access to knowledge and resources they will apply in subsequent graduate, post-graduate or professional work.

Organizational charts reveal that there are formal units with a more domestic or an international engagement focus. Nonetheless, interviews revealed that there is a mainly non-formal collaboration among the various offices. This internal networking and lateral coordination is crucial to overcome the natural tendency to siloed activity in the bureaucratic organization.

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Lateral communication promotes the integration between local and international initiatives. This integration shows that universities are making the effort not only to supplement the local with the global, but also to combine the global with the local through shared and mutual leadership and support.

Higher education's fluid interrelation with the context inherent to open systems reshapes and redefines the institution of land-grant university engagement. In today's interconnected world, university actors must become increasingly familiar and responsive to publics and processes occurring beyond the state and national borders.

United Nation's Sustainable Development Goals precisely pinpoint the grand problems or global processes affecting locales in each corner of the world. The UNSDG listed in 2015 include: no poverty, zero hunger, good health & wellbeing, gender equality, quality education, clean water/sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduced inequality, sustainable communities and cities, responsible consumption/production, climate change action, life below water, life on land, strong institutions and building partnerships (UN, 2015).

The global society challenges us to come together and find solutions to global problems. Through the work and engagement of faculty, students, and staff, universities are instrumental in tackling global concerns like climate change, migration, land dispossession, human trafficking, poverty, pandemic outbreaks and other pressing issues affecting the global population.

The next chapter presents a theoretical model of engagement for land-grant universities in the global society that was based on the literature reviewed for this study and the findings from the grounded theory methodological research. Therefore, the *Global Engagement Model for Land-Grant Universities* has an empirical and theoretical base. However, it is not an exact

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representation of individual universities' engagement models, plans, or initiatives. Instead, the model is the researcher's advancement of a forward-looking representation and explanation of global engagement for land-grant universities in the twenty-first century.

CHAPTER 5: GLOBAL ENGAGEMENT MODEL

Land-Grant University Global Engagement Model, a Grounded Theory

The purpose of this study was to examine how land-grant universities engage with the public in the era of globalization; to explain the institutionalization of engagement processes accounting for the global socio-economic-political context; and, to integrate this analysis in a Global Engagement Model for Land-Grant Universities implementing a grounded theory research methodology. Grounded Theory (GT) is fundamentally qualitative. Patton (1987) explains that qualitative research aims to understand unique situations, interactions, and their placement in relevant contexts. Qualitative research often leaves opportunities for inquiry and is more concerned about understanding settings (Patton, 1987). Hence, this research involved the exploration of elements, processes and context.

I utilized document analysis mainly to gain a background understanding of the sample universities and triangulate data. Beyond that, I obtained data from nine semi-structured interviews with engagement-rich and experienced individuals in leadership and/or faculty positions at the three sample universities. When I asked ways in which their university engages with the public today, participants told me the most captivating and inspiring stories. By asking the same question, I became familiar with stories on displaced international food workers organizing a cooperative enterprise to survive the Covid-19 pandemic in Pennsylvania; Indigenous Peoples in California being connected with First Peoples in Malaysia and First Nations in Greenland; faculty and students in Michigan partnering with Tanzanian communities and co-identifying needs and co-creating solutions to improve the livelihood of international communities; a College of Agriculture and Environmental Sciences in California attracting international interest on their climate change research. It was uplifting hearing how the public

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good in a global sense was the common thread of all these stories of land-grant engagement in the twenty-first century.

Now, left with multiple vignettes of global engagement in three universities across the United States, my research goal was to identify those elements or analytic categories that would be present in each one of the single vignettes. How is the Japan Center at MSU similar to the PSU Environmental Center; and how do those compare to the UC Davis Asia-Pacific Women in Leadership Mentoring Program? The response to this inquiry was synthesized in the Global Engagement Model for Land-Grant Universities.

The Global Engagement Model for Land-Grant Universities (GEM) effectively relies on the integration of local and international engagement initiatives and the interconnectedness of the network society. Other engagement models, unlike the GEM, frequently position community-based, local initiatives as separate from international community-based initiatives. Local initiatives enacting and developing programs in congruence with local needs can include Indigenous student services, cultural organizations and institutions, sustainability outreach (i.e., enacting climate change policy), and extension programs. International programs may include services for international scholars or a study abroad class. However, these elements go hand in hand in a global institution. Universities have strategic plans that detail how the university integrates the international and the local in exemplary ways. Strategic plans, meticulously generated by the university and responsive to local/global needs serve as guidance for further action. Such strategic plans often include considerations of equity, global/local social justice.

From analyzing the interviews, I found that for local to global development, universities generate research that garners attention from a global audience, which, consequently, generates a global buzz in the form of engagement. Universities collaborate and harness the potential and

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power of multi stakeholder organizational patterns, whereby stakeholders collaborate meaningfully through having shared goals. Universities also have inflows from the global to local. When the university obtains stakeholder and partnership opportunities, it generates new collaborators. Land-grant universities desire goals that are mutually beneficial, longitudinal partnerships around the world. Frameworks from the Offices of Diversity promote inclusion and global access, responsiveness and intercultural development. From a global to local perspective, the university internalizes core global concerns and ideologies, such as climate change, inequalities, and Covid-19, and conducts research, conducts local engagement initiatives, and fosters awareness. The global influences the local and promotes university responsiveness, which leads to the local influencing the global through garnering attention via research initiatives.

Figure 10 represents the global to local and local to global interconnectedness. On the left side, the global assists the local (i.e., considerations about COVID-19). On the right side, local needs and research ultimately generate interest and partnerships with global stakeholders.

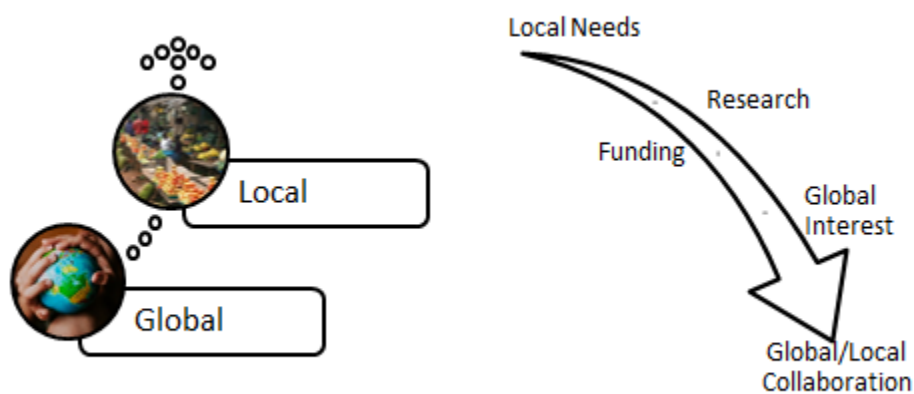


Figure 10: Local/Global interconnectedness

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Universities are becoming more globally connected and engaged than ever, and this is no surprise, given changing demographics, increasing diversity, and the role of international students. Brennan & Cochrane (2019) suggest that modern universities in what we would term 'big cities' serve regional, national and global purposes and are powerhouses of research, knowledge, and communication. "University geographies and topographies are ambiguous" (Brennan & Cochrane, 2019, p. 188), according to the authors, precisely because higher education does not solely disseminate and generate knowledge locally. Higher education institutions do not exist in a "special space, driven by a commitment to generating knowledge for its own sake" (Brennan & Cochrane, 2019, p. 188). Still, they are now part of a dynamic process, often one which integrates the global and local.

Altbach (1998) explains modern universities are akin to globally driven markets, where those who can access knowledge can also pay for it. In addition to this, the knowledge economy is becoming the dominant way of organizing modern economic systems (Altbach, 1998). As a result, universities have a greater capacity and demand for meeting global and local needs. The compounded demands of an increasingly capitalized and neoliberal economy have pressured higher education institutions to adapt. In the Global Engagement Model, universities generate interest from international students through offering a productive/meaningful academic environment, while sending domestic students abroad to learn about different cultures. At the same time, local needs and research initiatives are generating interest from global academic (i.e., higher education institutions), and non-academic stakeholders/leaders.

The semi-structured interviews offered robust data about the integration of local and international engagement processes in the land-grant university and their institutionalization. According to Seeber et al. (2020), European universities looking to globalize will engage in

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collaborative research, develop mobility pathways for students, marketing, mobility for staff members, joint degrees, offer remote learning, and provide services offshore (Seeber et al., 2020). From the perspective of the Global Engagement Model, universities try to foster local knowledge that may build a global buzz, attracting international stakeholders. Simultaneously, the university is a powerhouse of research that exports its evidence and initiatives and imports items from global agendas, such as climate change, Covid-19, migration, etc., converting these into valuable research (generating local from global).

One theme emergent from the grounded theory was that partnerships between local and international community stakeholders generate impact on a global scale. Networks expand as outreach engagement becomes intensive and collaborative. Universities may also work with existing global populations on issues with which they are familiar. The process leads to inclusive exchange with members from international academic communities and researchers. There are connections between local and broader global communities. The Global Engagement Model helps designing a globally oriented education that highlights tackling international challenges. Universities build global networks consisting of regional partnerships on the domestic level (PSU Global, 2022). Faculty at universities leverages their social/intellectual resources, reaching out to other research universities internationally. Simultaneously, students engage in initiatives that boost their sense of leadership and global citizenship. Strategic partnerships ensure that the university diversifies regions by attracting international student populations sending domestic students abroad (PSU Global, 2022).

Student mobility is an example of university partnerships. While land-grant universities send their students overseas for study abroad programs ensuring cultural enrichment and learning experiences, overseas universities send their students to American land-grant universities. The

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symbiotic process ensures partnerships between land-grant universities and overseas universities. In addition to dynamically presenting links between global/local realms, the arrangement contributes to the valuable revenue generation for the university. Universities are integrating local and global realms by offering domestic students concrete and meaningful opportunities, such as participation in extension and outreach programs, while giving them a chance to impact the world.

Global/local engagement dynamically attempts to integrate the global and local to meet the needs of domestic and international student populations while also factoring in external research grants, opportunities, challenges, and collaborative partnerships. Ethical principles like "deep commitment to diversity, inclusion, equity, human rights, and social justice" (UC Davis, 2018, p. 8) frequently emerge as a part of the framework and discussion for global/local engagement. For example, on domestic levels, land-grant universities engage through offering equity hiring initiatives for new faculty members, trauma-informed services, neighborhood and community initiatives, and programs that engage Indigenous, Latinx, or African American students. Simultaneously, the university looks at how it can cater to its international student population by offering a website that international students can visit to obtain information about courses, programs, accommodations, and academic support.

While land-grant universities consider the emerging needs of international and domestic students through equity and diversity initiatives/programs, they also externalize and locate research opportunities to boost international visibility and appeal. The seeking and establishing of research partnerships domestically and around the world, with other global universities, works symbiotically with improving the University's worldwide image and attracting more international students.

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As previously shown in Figure 3, there is a cyclical way in which the University establishes research partnerships with other global universities to achieve visibility through such alliances and attract international students for recruitment and enrollment. Owing to increased enrollment, the university accesses resources and continues to leverage partnerships. Finally, it can then identify new research opportunities. Simultaneously, the university maximizes its synergy with domestic/local populations through community outreach, extension, campus architectural and landscaping initiatives, programs for ethnic minority and underserved populations, medical efforts, medical research that assists the community, childcare provision, and equity initiatives that hire ethnic minority faculty members.

The following are the main components used in the grounded theory for this paper: land-grant university as a connector agent and facilitator, partnerships and their importance (as well as challenges), the creation of community networks, articulation, and stakeholder engagement/participation. Primary concepts for the emergent theory generated during the grounded theory process are the bilateral relationships and collaboration efforts between individuals, their partnerships, and their connection with other partnerships forming networks. The GEM model uncovered that connector agents in the university setting, focus on fostering bilateral relationships and building partnerships, discovering the impact of programs on different areas of the community and globally, as well as factoring in stakeholders.

Figure 11: *Global Engagement Model for Land-Grant Universities* captures all components of the GEM model and their relationships. Following the diagram, there is a definition of GEM elements and a conceptualization of GEM processes.

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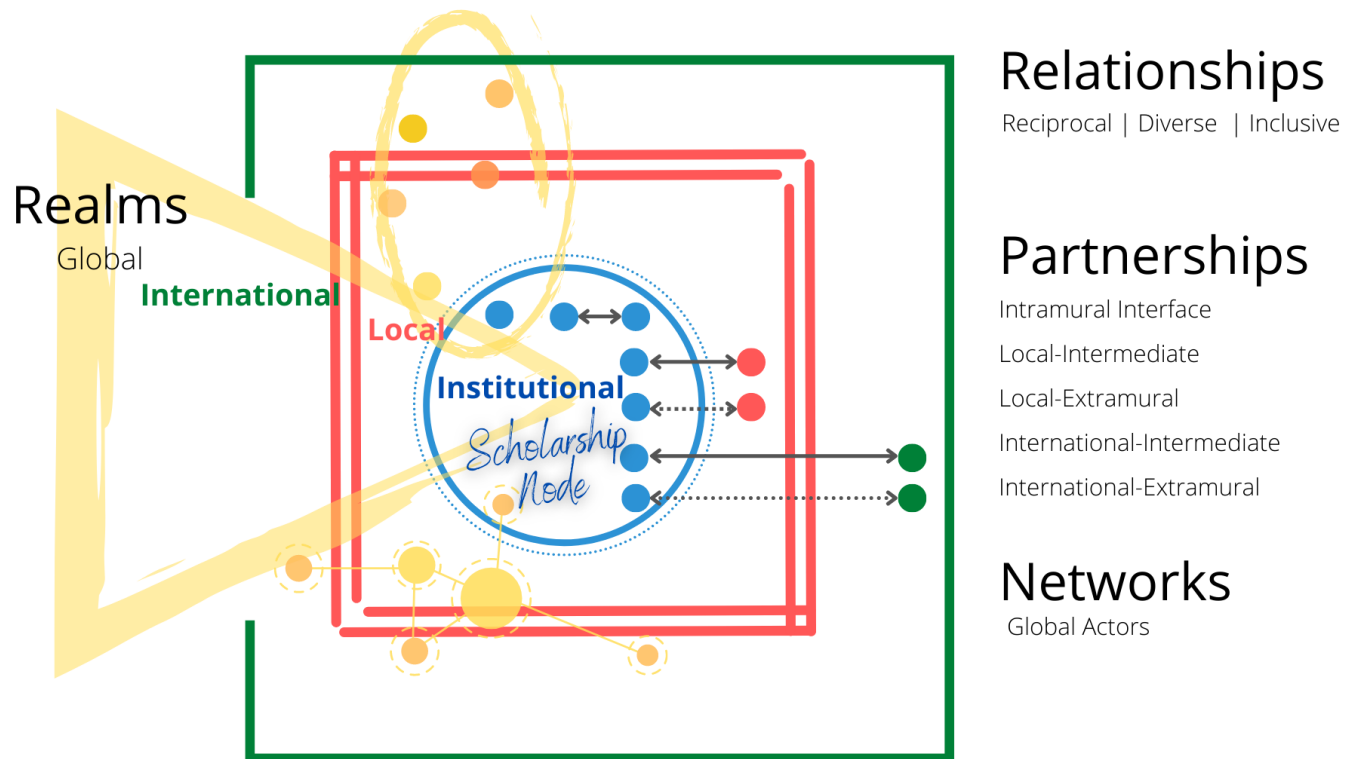


Figure 11: Global Engagement Model for Land-Grant Universities

Global Engagement Model, Components Definitions

Globalization

Globalization emerges as the process by which nations merge, effectively eliminating national sovereignty to make markets more movable and fluid. It operates on the premise of global capitalism, which relies on transnational flows of goods, labor, people and capital.

Globalization is important to remember because it has, to a large extent, emerged from the possibilities and opportunities offered by digital technologies (Castells, 2000).

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Internationalization

Internationalization is a facet or by-product of globalization and is the process of transforming something to become global, or international. Land-grant universities changed their repertoire as globalization became prevalent, beginning particularly in the 1980s and gaining momentum in the 2000s. Various commissions have reviewed the Morrill Act and deemed it unsuitable for modern needs. In other words, globalization has etched itself, perhaps permanently, into the university framework or structure. We can reframe this as universities internationalizing in congruence with the aims and realities of globalization. De Wilt & Altbach (2020) suggest that post-secondary institutions have been rapidly internationalizing, which refers to applying principles of globalization to their operations and functioning.

Network Society

The network society refers to the idea that information and communication takes place, largely in a digital sphere, in comprehensive networks. Internationalization is in-line with massification, the shift from a national to a global knowledge economy, greater autonomy, academic freedom, the value of reputation, and the changing economic and political climate. The networked society is a direct result of globalization and relies on the knowledge economy. As a result of the spread of networked, digital information and communication technologies, network society emerged in 1991 as a term for the social, political, economic, and cultural changes occurring. According to Castells (2000), information technology is driving a new economy. In this society, internationalization and globalization are priorities (Castells, 2000). Globalization came out of a variety of rationales and motivations that changed over time.

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Knowledge Economy

A knowledge economy is an economic system based on production and consumption of knowledge. It refers to the ability to capitalize on scientific discoveries and basic and applied research. This idea has come to represent a large part of all economic activity in most developed countries (Hayes, 2021). Effectively, the ‘capital’ or currency found valuable in the knowledge economy is knowledge itself, which emerges and re-emerges, constantly reproduced, primarily in the digital sphere. The knowledge economy means, for instance, that governments (and arguably higher education) must offer citizens increased access to content and skill-building (Harris & Ormond, 2018).

While labor was predominantly manual in the past, the labor market has experienced a shift with increasing skills-based work. The OECD (2001) suggests that businesses are looking just as much for technical skills as work competencies (OECD, 2001). This is an indicator that the knowledge economy has become a vital concept in the 21st century.

Local Context

Local context refers to systems and organizations located in proximity and often defined by a civic group of town, city, state, or region. In some cases, particularly with discourse on globalization, local can also mean national. According to Johnstone & Proctor (2017), local contexts remain distinct from global contexts (Johnstone & Proctor, 2017), but often provide opportunities to produce knowledge and research.

International Context

International refers to systems and organization outside the national borders. However, an international American institution refers to organizations rooted in the United States and engaging with a broader world community.

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International refers to a global or world context. This concept is different from local and distinguishes itself on this definitional basis. Institutions are international when they engage with a broader world community. Johnstone & Proctor (2017) suggest that universities or organizations may have distinct reasons for engaging within international contexts, including absorbing demand (i.e., from international students), political and social integration, forming alliances, increasing reputation and producing new knowledge.

University Engagement

This research adopts Carnegie Foundation's definition of community engagement: Community engagement describes collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. Engagement can occur locally and globally, through local/global inflows, communication and dissemination of knowledge, research, capital and entrepreneurship.

Reciprocal Relationships

Relationship is the way in which two or more people or groups regard and behave toward each other. Reciprocal relationships are mutually beneficial connections. They tend to be meaningful, based on shared beliefs, respectful and long-lasting. Stakeholders wishing to collaborate should be mindful of maintaining positive relationships, in addition to formal partnerships. "Business relationships, which provide information, training, referrals, intermediate inputs, and other services, are potentially central" (Cai & Szeidl, 2017).

Quality Partnership

Partnerships are informal or formal associations of two or more people or groups. Partners have a relationship based on shared goals, there is a distribution of roles and

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responsibilities, and mutually agreed expectations. Quality partnerships place high value on genuine, collaborative, and inclusive relationships.

An organization and its partners can collaborate in the form of a partnership. By dividing labor as agreed upon between all parties, this relationship aims to reach shared goals. Developing practical solutions to societal and community problems is the goal of partnerships. Partnerships frequently occur either between academic institutions (i.e., two or more education institutions) or between education institutions and other organizations (i.e., community organizations, global organizations, NGOs, etc.). Cai & Szeidl (2017) note organizations experience limits to managerial skills and borrowing. Forming partnerships can be a good way for them to move forward within a complex, globalized higher education system.

Partnership Network

A network is a group of interconnected people or entities. A network can include two or more formal or informal partnerships or relationships between individuals. IT and IMS contributed to an exponential growth of networks world-wide. The link between network units is mainly horizontal.

Networks occur when there are more than two partnerships, and typically involve integration of local and global initiatives, propositions, programs, etc. Integrating local/global means combining these realms in a network, where stakeholders can access databases, resources, tools and can communicate with each other. Land-grant universities engage in networking to help strengthen their global and local reach, promote engagement and tailor to student populations (both international and domestic). Croft (2019) notes extension, research and teaching are at the heart of networks within the post-secondary education environment.

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Extension and research both require comprehensive networks, often involving multiple partnerships within one network, or several networks spanning organizations.

Connector Role

Connector role is the function of linking an individual, academic unit, system, school, and/or organization with another person or entity. Integrating local/global means combining these realms in a network, where stakeholders can access databases, resources, tools and can communicate with each other. Land-grant universities engage in networking to help strengthen their global and local reach, promote engagement and tailor to student populations both international and domestic.

Scholarship Node

A central connecting point across systems or organizations where scholarship is discovered, integrated, applied, taught, and is the main goal.

Hierarchical or Bureaucratic Organization

A bureaucratic organization is composed of multiple departments, each with policy- and decision-making authority. The purpose of any organization is to achieve certain goals and authority figures are charged with aligning people's behaviors to institutional goals. In this type of organizations there is a vertical chain of command. (Bolman and Deal, 2013)

Interfaces (intramural, intermediate, extramural)

The interface is the point at which different systems come together and interact or communicate (Yasseri & Bahai, 2019, Pashby et al., 2020). Intramural refers to the connection between two or more university systems. Correspondingly, articulations across university units are a strategy put in place to interconnect two separate units that are not inherently connected (by its administrative definition or mandate). On the other hand, the intermediate interface means the

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connection between a university system and one or more units or agents belonging to a system located in the university context. Lastly, extramural interface refers to spaces of interaction between two or more units external to the university. (Woodell, 2014)

The interface is the point at which different, often unrelated, systems come together and interact or communicate. Interfaces serve to connect various parts of universities and academic institutions on local, national and even global levels. Donnelly (2007) suggests that partnerships help those who may receive inspiration from acting independently (Donnelly, 2007). In today's complex world, however, independent work is not as effective at securing organizational goals.

Institutionalization

Institutionalization or structuration is used interchangeably following Barley & Tolbert's (1997) theory that emphasizes the degree to which institutions vary in their normative power and their effect on behavior. Barley & Tolbert define institutions "as shared rules and typifications that identify categories of social actors and their appropriate activities or relationships" (p.96) and they expand: "One can think of institutions as abstract algebras of relations among members of social sets. From this perspective, institutions are to social action as grammars are to speech." (p. 96). Thus, institutions (or structures) are both a product of human action and a constraint on behaviors.

Scripts of Global Engagement

Institutions are enacted through 'scripts' that are "observable, recurrent activities and patterns of interaction characteristic of a particular setting." (Barley, 1986, p. 98). In this context, the institutionalization of global engagement is understood as the longitudinal process by which university actors create tangible and tacit structures and act in relation to those structures.

Global Engagement Model, Conceptualization of Processes

Local Realm

The original legal framework for the land-grant system encompasses three legislations: two Morrill Acts, the Hatch Act and the Smith-Lever Act. The utmost goal of this system was the agricultural and economic development of local communities. In this case, local applies to each land-grant university's respective states. Furthermore, the university was considered to have expert knowledge and its function was to transfer it to the community for their betterment. This expert-assistance relational model changed over time as the university open-system adapted to new societal needs. Today's new demands for the land-grant university system were voiced by academics (Boyer, 1990), the Carnegie Foundation, and the Kellogg Commission among others.

Today's local context or proximal context is a part of the network society with a knowledge economy (Castells, 2000) with equitable and inclusive aspirations for each member of the communities (UNSDG, 2015). This new context has brought about a redefinition of community and a new orientation in university-community relationships. This relationship is bilateral, the university moves away from the concept of "helping" the community towards the idea of "engaging" with the community (Campbell & Pendleton, 2019).

The engagement efforts from the 1990s onward emphasize a shift away from the university as an expert (implying the university can serve and reach out to its community) toward a collaborative, two-way model in which many community partners work with universities and play a significant role in creating and sharing knowledge to contribute to the populace (Weerts, 2011). Further, engagement initiatives have expanded from agricultural and economic development focused to sustainable solutions, climate change, and social justice.

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Local engagement initiatives foster mutual partnerships occurring mainly in the intermediate interface of university units (academic or administrative) and various community entities or organizations. From a local perspective, the sample universities in the Global Engagement Model continue to take care of their local public by fostering social justice and working in collaboration with local entities.

International Realm

International refers to systems and organization in other nation-states beyond the national borders. Even so, those nation-states, international communities, and international organizations continue to increase their interdependence and interconnectedness. The land-grant university as an open system is not excluded from these social changes. Land-grant universities, being responsive and adapting to this global context, undergo a series of internationalization activities (Hudzik, 2011): organizational restructuring, pursue of international partnerships, embed global perspectives in the curriculum, continuing with the international student and faculty exchange, and more.

The sample universities in the Global Engagement Model mirror the social trends of the network society. They are increasingly connected to entities in distant locales through partnerships based on shared interests and mutually beneficial goals. The process of internationalization (or incorporating the international realm in the university system) is supported by organizational restructuring, for example, new academic and administrative units emerge: Office of Global Affairs, Global Engagement Office in the College of Agricultural and Environmental Sciences, International Studies & Programs, World Campus, Global. Internationalization of the university is the integration and alignment of university's internationalized goals, programs, curricula, and culture. The university's strategic planning is to

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bring coherence and cohesion to internationalization efforts. Land-grant institutions are motivated by various factors and forces to promote internationalization, from academic to socio-cultural, from economic to political (Hudzik, 2011). Motivations can be maximizing profit or revenue, demand absorption, educational offerings, strategic alliances, professional development, reputation, research, and knowledge production (Johnstone & Proctor, 2017).

The Global Engagement Model represents a land-grant university engaged with international public and in concordance with Kellogg Commission's engagement concept. Moreover, the GEM model advances an engagement model that boosts access to higher education for people from all backgrounds and locales.

Similar to the local partnerships, the international partnerships are occurring in intermediate interfaces since the land-grant university context is the global society. Also, internationalization at home efforts are represented by the white cyclic arrows in Figure 9. These are equitable and inclusive practices for land-grant universities that serve as people's universities.

Global Realm

The Global Engagement Model utilizes the expression "global engagement" to conceptualize the interconnectedness of land-grant universities' local and international engagement.

Engagement initiatives that are globally based depict collaborative relationships, thematic or mutual interest-based partnerships, and networking activities amongst local, state, national, regional, and international stakeholders. According to this model, a network implies the presence of three or more stakeholders or partnership agreements.

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In this case, networks are systems of horizontally interconnected stakeholders traversing the vertical formal structure of the university bureaucratic organization. It is apparent that global networks mainly operate in the midst of horizontal university interfaces rather than in the vertical or hierarchical administrative structure. Global engagement initiatives are integrated local and international partnerships operating in the intramural, intermediate, and/or extramural interfaces.

Institutional Realm

This study's intensity sampling criteria proved to be instrumental to the Global Engagement Model design. The data, in the form of engagement vignettes, unveiled an array of scripts of interconnectedness and integration of the local realm and the international realm. Scripts of Engagement can be grouped in four emergent themes: University as a connector; engagement enablers, partnership challenges, and assessment practices.

University actors drive connections between local to global and global to local processes through partnerships. The partnerships are based on bilateral relationships and thematic collaborations. It was also observed a thorough encoding of global engagement institutional principles in formal organizational documents (strategic plans).

There are formal or informal conditions that promote said partnerships among university units and its actors (faculty, students, staff) with local/international community entities. For example, articulation across university units bridging siloed activities, extensive internal and external communication, multi-stakeholder investment and community ownership, infrastructure support and sufficient funding.

On the contrary, factors that negatively impact the institutionalization of global engagement in these land-grant universities are the pandemic, nationalistic and isolationist politics, lack of intercultural competence, linguistic barriers, institutional silos and funding cuts.

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Universities have various assessment systems in place that are also vehicles for structuring (or institutionalizing) global engagement. Assessments range from institutional research, unit evaluation, promotion and tenure stipulations, to assessment criteria imposed externally such as accreditation systems, rankings, classifications and institutional awards.

Nation-states, moving toward integration rather than isolation, are no longer dependent on geographic proximity for collaboration and partnerships. IT and IMS sparked a communications revolution where knowledge exchange, commerce, leisure, and entertainment cross national borders on a regular basis. The university, in a similar way, mirrors these patterns, with research, teaching, and engagement being practiced and shared beyond the proximate local. Digital technologies help university actors extend their functions beyond their immediate setting. The growth of internationalization in post-secondary education also increases multicultural diversity at-home.

Through these scripts, faculty, administrators, students, and university staff produce formal or tacit structures that in turn will guide future behaviors or actions. The GEM model depicts the institutionalization process of global engagement in land-grant universities.

Institutional Continuity and Change

As an open system, land-grant universities must at once change by adapting to new world features, organizational principles, and modes of communication and retain its fundamental quality as institutions of higher education. Topal (2019) expands on the coexistence of change and continuity in university settings/institutions. Institutional actors become socialized through norms that exist because of continuous maintenance and practice. They have reciprocal and mutual relationships, relevant social roles and knowledge, and goal orientation. Faculty members

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and agentic members in the institution leverage power relationships to disrupt and create the status quo. For instance, they may present as experts on a specific topic (Topal, 2019).

The point is that there is a balance between creation and disruption that occurs on organizational and institutional levels. Higher education's concern is continuing to conduct similar functions in stable, rather than labile, environments. Higher education institutions that want to—at least to some extent—utilize some form of change process while remaining loyal to core ideas and functions—should focus on mutual relationship building. On the other hand, distinct change often requires the assertion of boundaries and power relations (Topal, 2019), likely so that institutions grant one agent or group enough power to enact meaningful change. Institutions are “formal organizations and informal rules and procedures that structure conduct” (Bleich, 2007, p. 221). New policies, court decisions, and laws will frequently intervene on the homogeneity and status quo of institutions of all varieties. Institutions often learn lessons from past experiences and conduct and enact change according to standards of adaptation (Bleich, 2007). In the case of higher education, globalization and the emerging role of international students in the higher education socio-economic and political fabric constitutes a change warranting and even demanding adaptation. The increased influence of technology and digital communication also necessitates transformation.

Simultaneously, the higher education remains committed to fundamental visions and functions. For instance, the higher education institutions will always serve as a knowledge hub, even though the nature and sharing of that knowledge change throughout time because of critically impacting circumstances. Harris & Ormond (2018) note there has been a shift toward understanding the relevance of innovation as a critical marker of possessing knowledge, particularly in an era of mass globalization. Innovation drives economic advantage. In the

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knowledge economy governments (and arguably higher education) must offer citizens increased access to content and skill-building (Harris & Ormond, 2018).

The formulation of continuity and change described in this section is relevant for understanding how universities adapt to new circumstances precipitated by globalization. Land-grant universities strive to meet the foundation mandate of the Morrill Act of 1862, while they adjust to globalization and international interconnectedness, which poses new challenges and demands. The Global Engagement Model accounts for the broadening context and the socio, political, and economic forces that prompt institutional change while simultaneously allowing institutional continuity.

Continuity for these universities involves some of the following features: working with existing staff members and faculty, utilizing information exchange, conducting research, and retaining previous community connections. The fundamental orientation and goal of the university is as a knowledge hub. Universities have always been knowledge hubs where researchers come together to explore social, political, and scientific concepts. The consideration that universities are stable points of information exchange and research is considered on the Global Engagement Model, a sign of continuity. According to the model, universities continue to generate research on local levels, while adding on the global element.

Institutional change for land-grants in the era of globalization is multifaceted, and the GEM aids unveiling these changes e.g., new integrated local/international partnerships amongst multiple stakeholders (engagement in the intermediate interface); new administrative units working in collaboration with academic units (engagement in the intramural interface); increased international student body, increased multiculturalism, development of a global competency.

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Change involves adapting to circumstances of globalization through things like initiatives for international students, collaborative partnerships between domestic and international academics/professors, generating local research with global impact, and adapting to new modes of information sharing. Universities have been undergoing massive shifts in orientation, structure, and functioning. According to Jacobs (2022), universities are becoming more homogenous and diverse, with standardized global curricula delivered across the board. Universities shift toward models congruent with global capitalism (Jacobs, 2022), marked by boundlessness, deterritorialization, the international movement of people and ideas, and free-market capitalism. Competition is no longer from domestic faculty and students, and curriculum converges globally in terms of accreditation systems, research partnerships, themes, ranking systems, increased enrollment of international students, and policies on immigration.

The university is experiencing an unprecedented shift in consciousness, with market forces largely driving enrollment, curriculum, engagement, and research projects. These factors make up the 'change' aspect in 'change and continuity.' Key features of the University, such as the university as a knowledge hub, remain. Most universities are also fixed in geographical space, even if faculty members and researchers generate knowledge applied in local and global situations. However, universities now face the task of global cooperation, producing and disseminating research to other institutions, which are not always other higher education institutions.

Global ranking systems indirectly place some students before others (usually on an economic and social class basis) and bring top international talent to the center from the periphery. As such, license and credential transfer does not always happen uniformly or consistently (Jacobs, 2022). The movement from the global edge to the core—typically involving

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the movement of international students from the global south to the global north, where there are more renowned universities—necessitates a shift in consciousness and orientation. Another trend is international students moving from the Eastern to the Western hemisphere e.g., students from Eastern European countries moving to Germany, England, or America to pursue their studies.

Universities must now be providers of education and providers of services that are on par and congruent with the needs of students emerging from all parts of the world. In this realm, America's universities continue to be some of the most prestigious and influential globally, a point of sustained and ever-present continuity. These intensive research institutions have never stopped representing the pinnacle of global post-secondary education. According to Lovett (2020), the phenomenon of globalization has revolutionized the way institutions and organizations exert power over external agents and stakeholders. Joseph Nye, a key leader at Harvard University, said, "Soft power is the ability to get what you want through attraction rather than coercion or payments" (Lovett, 2020, p. 15). WWII saw the collapse of devastating totalitarian regimes in Europe and revitalized talks about a more globally cooperative world. "American-style" (Lovett, 2020, p. 17) universities and colleges have always been internationally prestigious.

The point of continuity includes the fact that these land-grant universities are knowledge hubs of research engagement and exchange and remain as prestigious as they ever were. From the Global Engagement Model, it means that universities can internally generate their own research and community-based/local initiatives, which can spark interest from global stakeholders overseas.

GEM Differentiation from Other Engagement Models

The Global Engagement Model for Land-Grant Universities uniquely relays the social phenomena that facilitate universities' adaptation to globalization. The GEM model posits, integrating global processes in the land-grant university honors the very same local root of people's college's foundational mandate. On the grounds of serving the American public, ensuring a global education in the twenty-first century is a right and a public good.

One of the strengths of the Global Engagement Model is the theoretical and empirical underpinnings beyond the practical applications derived from the framework. The GEM model suggests universities aim to integrate both local and global concerns in a fluid, dynamic and robust way. The GEM model remarks the reciprocal and integrative way the global/local function. In other words, it suggests that the global and local are not necessarily entirely separate realms but derive meaning from each other, it identifies the primary elements and the fundamental processes.

Comparing to the McMaster University Model for Global Engagement (2017), there is a similarity on the undergirding theme that of internationalization/globalization serve to enhance the university, while reciprocal ties ensure that stakeholders work together for consolidating and establishing mutual goals. Their global engagement model, similarly to GEM model for land-grant universities, targets this need for reciprocation between global/local realms in a more comprehensive way. However, the McMaster model (2017) suggests the core features of its model include enhancing internal coordination and communication, strategically approaching global cooperation, establishing a "global identity" (McMaster, 2017) and supporting intercultural dimensions for local and international students. While the GEM model concurs with McMaster's four core features, the GEM model identifies one seminal element: relationships and

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includes the conceptualization of other new core components. Therefore, GEM is a more thorough framework for understanding university's global engagement.

On the other hand, Stockton University's global engagement model's distinctive feature is its comprehensive approach to internationalization activities ongoing at the university. Figure 3 illustrates the five areas of comprehensive internationalization. The formal definition for comprehensive is 'including all or nearly all elements or aspects of something.' Stockton's global engagement model offers readers the opportunity to interact with some of the different components of the global framework, and it includes professional development and engagement, global partnerships, education abroad, international student services and global learning through curriculum (Stockton University, 2022). Nevertheless, Stockton's model lacks attention to the interconnectedness of elements, individuals, units, and systems inherent to the global world. In contrast to Stockton's model, the GEM model deems relationships and partnerships the core concepts of globalization of higher education. Understanding what the most primary component of university's global engagement is, it is possible to accurately assess the institutional engagement and propose improvements.



Figure 12: Stockton University (2022)

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What differentiates the GEM model is that it uniquely considers the global and regional/local as fundamental to the land-grant university's success. In other words, land-grant universities need both elements to fully integrate into a 21st-century digital landscape, offering learning opportunities for international students while serving domestic populations through equity provisions. The model's basic premise is that universities remain embedded in local communities and environments, expanding into the global realm depending on motivation, momentum, and external stakeholder interest.

While the models offered here are certainly interesting and tackle the university's need to engage in global 21st century environments, they do not outline or highlight global/local interaction and are thus not sufficiently comprehensive. The models focus on employability and offering hybrid technological solutions to learning challenges. The Global Engagement Model is significantly more robust to understanding university engagement today.

Conclusion

The Global Engagement Model of Land-Grant Universities (GEM) explains how the land-grant university engages with the global context as a response to the new social order. Its seminal component is Bilateral Relationships, which are the basis for Quality Partnerships and Engagement Networks. GEM accounts for social processes occurring at the macro level and how they relate to the local- and institutional-level processes. This model includes definitions of main components and conceptualization of processes according to the local realm, international realm, global realm, and back to the institutional realm.

The chapter includes a comparison to other university-community engagement models. We can see GEM's contextualization of the land-grant university in its socio, economic, political, and historical conditions makes the model comprehensive. Moreover, the identification

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of seminal components and their interconnectedness with the entirety allows explaining a complex phenomenon in simple terms.

The GEM model is a theoretical tool that can be instrumental on explaining change and continuity in the land-grant university of the twenty-first century: On one hand, the land-grant university founded after the Morrill Act along the Hatch Act and Smith-Lever Act is known as the People's College. Its mission was to build a nation for the democratic society. During the time of an agricultural economy and industrial society, the land-grant university system focused its operations in producing agricultural knowledge and technology transfer. It related to the community through the expert model with unilateral relationships via its extension agents. The community entity was mainly in a subordinate position to agricultural extension units which in turn were part of a highly hierarchical organizational structure. On the other hand, in the era of globalization with a knowledge economy and network society, the land-grant university is adapting to remain relevant. Today, its mission incorporates educating a global citizen and developing scholarship in a comprehensive approach (discovery, integration, application, teaching, engagement). The modern land-grant university links to the global community in bilateral and collaborative ways via its connector agents or connector units. These partnerships and networks expand the organizational structure laterally rather than vertically. It is apparent that the land-grant university has redefined its role over time. In the global society the land-grant university has become a *scholarship node*.

The next chapter outlines some methodological limitations, offers direction for future research, and expands on implications for scholarship.

CHAPTER 6: IMPLICATIONS FOR SCHOLARSHIP & CONCLUSION

Implications for Scholarship

The Global Engagement Model for Land-Grant Universities (GEM) is a starting point for other scholarship aiming at unveiling and explaining land-grant universities' modern engagement processes. Nevertheless, it is understood that a single study has limitations and is insufficient to explain on itself the broad and complex topic of land-grant global engagement.

In alignment with my epistemological foundation, I consider that research studies are not all-encompassing, stand-alone and finished pieces as is a poem. Rather, research studies are meant to be in a discursive relation to the body of knowledge, similarly to a real conversational agent (not a virtual chatbot). This dissertation study is no exception.

In chapter 1 and chapter 2, I explored existing discourse about land-grant colleges and internationalization of American higher education and identified a literature gap on land-grant universities' global engagement. In chapter 3, I explained the research design and detailed my plan for investigating this phenomenon. Chapter 4 is a dialogue between theory, data, and interpretation. Chapter 5 contains my original contribution to the field of higher education. And in this last chapter, I point out the limitations of my research and invite others to join in the conversation and continue deepening our collective understanding of land-grant universities and their role in the global society.

Utilizing Boyer's (1990, 1996) framework of scholarship, I point out potential limitations of the research design and suggest directions for future research under the scholarship of discovery. Then, I propose ideas to continue the scholarship of integration, scholarship of application, scholarship of teaching, and the scholarship of engagement. Then, I present ideas for the Center for the Future of Land-Grant Education housed in the College of Education and

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Human Services at West Virginia University, my alma mater. Lastly, I present concluding remarks.

Scholarship of Discovery

Assessing Methodological Limitations

The purpose of using intensity sampling was to identify universities with an established record of policies and practices surrounding local and international community engagement. This criterion proved to be advantageous to locate cases containing rich scripts of engagement. However, this sampling criterion hid narratives of unsuccessful engagement initiatives. In other words, scripts of challenges and barriers were not fully explored.

In a similar fashion, the pool of interview participants had high levels of knowledge and experience in local/international engagement. Their expertise and commitment to the scholarship of engagement may have overshadowed those scripts of struggle that are also a part of global engagement institutionalization.

Selecting only three exemplary cases, UC Davis, MSU, and Penn State, was deemed sufficient to achieve category saturation. Arguably, a larger sample can assist in furthering triangulation and theoretical sampling.

Interview participants' current affiliation with each of the sample universities may have prevented them from sharing or expanding on internal divisive issues or other contentious matters.

In this grounded theory, the element *Relationships* is the foundation for the *Partnerships* element which in turn, is the foundation for the *Network* element. Quality Relationships was conceptualized through the interview participants' stories on good practices rather than on my

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direct observation of these relationships. Moreover, in this town-gown relationship (Kemp 2013, Gavazzi 2015) town representatives were not interviewed.

Meetings with interview participants were online through Zoom videoconferencing software mainly to reduce exposure and health risks during the Covid-19 pandemic. While using this online platform has advantages, technical difficulties are one of the main disadvantages (Gray et al., 2020). In this case, as a result of connectivity issues, the duration of one of the interviews was involuntarily reduced.

Moreover, the loss of proximity between the interviewer and interviewees can result in a loss of opportunity for the researcher to know the participant's emotional cues, gestures, and body language; besides, unanticipated distractions may emerge during the interview (Gray et al., 2020).

Ameliorating videoconferencing limitations, Zoom allowed me to choose a university-sample independently from their location. Travel related funds were not needed in this study with a geographically dispersed sample. Lastly, the study did not depend highly on interview contextual features such as facial movements and gestures because much of the data generated by participants in the form of interview transcripts were fact-based or event-based. In addition, the topic of global/local engagement in land-grant universities has less emotional resonance than issues such as social justice, meaning that not gauging facial and other gestures was not a severe limitation during interviewing. If anything, I could see that participants were enthusiastic about global engagement efforts.

Augmenting the Depth and Breadth of the Global Engagement Model

Subsequent research studies can address the methodological limitations of the Global Engagement Model for Land-Grant Universities. For example: increase the university sample

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number and interview participant's number; include interview participants from offices of Diversity, Equity and Inclusion, as well as community entities; modify the intensity sampling criteria (e.g., select universities that have no awards for engagement activities); include universities founded under the second Morrill Act or Tribal Colleges; and, conduct in-person interviews.

Studying the university's engagement with communities is a complex phenomenon (Koekkoek et al., 2021). A multimethod research approach can increase the overall robustness of the GEM model. Qualitative methods can use narrative analysis, phenomenology, ethnography, and case study designs. Ethnography looks at how culture shapes values, language, beliefs, and behaviors. Case studies use one or several cases to highlight a specific point about a phenomenon (Elkatawneh, 2016). Narrative analysis can study how domestic students involved in community work view global engagement. Phenomenological methodology can be conducive to study the subjective experiences of local students studying abroad. An ethnographic approach might, for instance, investigate how increasing internationalization and the international student body have transformed campus culture in higher education institutions or examine international students' sense of belonging in local communities.

I am personally interested in conducting a single-case study on engagement initiatives that resulted in the development of extramural networks. A multi-case study seems adequate to study tenure and promotion practices in a globally engaged land-grant college. Koekkoek et al. (2021) say that, for instance, universities tend not to offer faculty members and researchers incentives for local community engagement so far as these do not directly impact university rankings. Criteria for tenure, a highly regarded position for the professoriate, emphasizes scholarly research and activities, such as publishing work in an academic journal or receiving

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funding from grants over working with and for local communities (Koekkoek et al., 2021).

Following the multi-case study a correlation study between P&T and engagement activities would be a powerful empirical tool to shape policy.

While the internationalization of higher education is not precisely a new phenomenon, further research can discover success metrics for outreach engagement in a global sense e.g., international student success, equity and social justice initiatives, international collaboration in faculty research. Quantifying the phenomenon of global engagement in land-grant universities can help understanding the context (local, international, and global realms) and impact of partnerships and networks. Lastly, future research can use the GEM model as a theoretical framework to conduct empirical research about land-grant universities' global engagement.

Scholarship of Integration

The scholarship of integration focuses on making interconnections across disciplines. It encompasses the interpretation of scientific discoveries across disciplinary boundaries so it can be integrated into a larger body of knowledge. Boyer (1997) stresses that the rapid pace of societal change in a global economy has elevated the importance of this form of scholarship.

The phenomenon of global engagement in land-grant universities can be examined across a wide variety of disciplines. Researchers in the field of higher education can collaborate with faculty in the fields of social psychology and organizational theory. These fields examine interactions between beliefs, behavior, emotions, and thoughts on a group and individual levels, targeting discrimination and prejudice.

Stangor (2022) discusses social psychology as “the study of the dynamic relationship between individuals and the people around them” (Stangor, 2022). Each person has desires, motivations, and drives that are unique. Social situations exert pressure on people to adapt

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(Stangor, 2022). Social psychologists would provide helpful information on how to examine issues surrounding globalization processes in higher education. Organizational theory refers to broader theories that explain the foundations of human interaction within organizations. Research can use organizational theory as background to help explain corporate restructuring that occurs in higher education after increased globalization, and the need to integrate global/local concerns.

Jones (2013) notes organizations create value, transforming inputs and turning them into valuable outputs (Jones, 2013). In the case of this research, higher education serves as an organization that generate value for multiple stakeholders, including university CEOs, management and marketing teams, faculty and staff members, international and domestic students, as well as local and global communities that benefit from research.

Scholarship of Application

The Global Engagement Model for Land-Grant universities made visible that communication infrastructure, institutional research, and policy issues are some relevant application areas as expanded below.

Communication Infrastructure

IT and IMS fields can assist land-grant universities to effectively integrate local and international partnerships by designing comprehensive and accessible databases. A wide-ranging and user-friendly database facilitates networking opportunities. It can assist new faculty members, incoming students, and staff and allow staff to acquaint themselves with existing partnership opportunities. Partners can also share research, network, and enter new projects, in other words, there is increased access to the engagement network.

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Concrete databases make work more efficient and convenient for all stakeholders. Online databases are convenient and flexible. They offer users the capacity to login to the database at any point across any space, which is a significant advantage. Land-grant universities' databases could offer users opportunities to login from anywhere in the world, and users can consist of stakeholders, faculty, and students. Maintaining databases and tracking partnerships is important also to ensure a cohesive approach to university global engagement and facilitate assessment. Software industry and programming schools can come together and design a database to suit the goals of community groups, students, faculty members, global universities, research institutions, universities/colleges, public schools, and knowledge hubs such as libraries, etc. Stakeholders who entered the database could share knowledge and resources meaningfully, utilizing the database as an accessible and valuable central hub. It can also include a communication feature, such as a forum, chat room, message board, or instant messaging/email capacity.

Institutional Research

SWOT analysis is a tool that organizations use to measure strengths, weaknesses, opportunities, and threats to success, often considered the pinnacle of strategic management. Land-grant universities can use the GEM model to guide a SWOT analysis of their current global engagement efforts and design a plan to move forward.

Namugenyi et al. (2019) suggest SWOT analysis can help determine an organization's external and internal threats, resources, and capacities, particularly in complex entrepreneurial ecosystems. Weaknesses and strengths are internal categories, while threats and opportunities are external (Namugenyi et al., 2019). Internal refers to institutional capacities that serve to leverage and bolster the organization's success or that weaken it. In contrast, external refers to outside factors not immediately under the organization's sphere of control or influence.

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Researchers have effectively utilized SWOT as an evaluative/assessment tool for post-secondary institutions. For instance, Shahijan et al. (2016) examined an internationalization framework in a Malaysian higher education, drawing on this tool to guide institutional decision-making processes. Recommendations for institutional research include conducting a SWOT analysis guided by the GEM model to gauge whether the university is meeting its global goals. In a different but relevant way, the land grant university can use SWOT to measure the local engagement and whether global and regional intersect or merge meaningfully. Local initiatives differ from global ones, but they emphasize participatory and equitable approaches. For example, local engagement initiatives can include programs for the inclusion of Indigenous and ethnic minority students and policies that seek to hire more diverse faculty members who represent student bodies.

Promotion & Tenure and Strategic Planning

The recommendation is to continue to adjust P&T or promotion and tenure practices that meaningfully promote faculty engagement in global initiatives, again, global meaning local processes integrated with international processes. Initiatives can include outreach engagements, teaching, or research. Rice et al. (2021) note, P&T is so important in the modern higher education landscape that it requires calibration, evaluation metrics, and analysis. Currently, some universities prioritize the number of research articles over quality, which may compromise P&T practices or make them less transparent. One suggestion is incentivizing research through promotions and rewards that follow the best rules in publication and generate meaningful and socially impactful research and collaboration (Rice et al., 2021).

Higher education should employ P&T congruent with the pressing need for colleges and universities to integrate a global dimension and navigate potentially challenging and unknown

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landscapes. Strunk (2020) notes that there is a need to eliminate confusion and vague qualifications for promotion and tenure. Changes to the P&T process will drive changes in strategic planning and most importantly, engagement actions.

State Policy

The mission and purpose of the land-grant universities as people's colleges can be summarized in the following items: increase access to higher education for people of all backgrounds; expand academic programs to all fields of study; remain relevant to the modern context; and most importantly be inclusive and equitable. In contrast to private schools more over for-profit schools, public universities should defend and uphold global citizen education as, in essence, a public good.

The state legislature, therefore, needs to secure tax appropriations to support financing land-grant institutions. Although state governments consider land-grant universities as the servant of their respective states, legislators and policymakers often perceive a disconnect between the teaching function of the university and their intensive research activities plus their outreach engagement. Hence, the state government is reluctant to increase appropriations for research and extension purposes (Gee & Gavazzi, 2018). This disconnect, Gee & Gavazzi (2018) argue is fixed on an obsolete interpretation of society and macro context of higher education.

As explained in the Global Engagement Model for Land-grant Universities, American higher education is a part of the global village and cannot afford to withdraw from global networks. Quite opposite, states should increase funding to their land-grant universities proportionally to enrollment, research, teaching, and global engagement. Moreover, the funding formula of one-to-one matching should be fulfilled by states (Lee & Keys, 2013). Thus, 1862s and 1890s land-grant universities should receive matching funds for teaching, research, and

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global engagement. If anything, states should stop using higher education as the budget balancing wheel and should incentivize their flagship land-grant colleges to engage globally.

Federal Policy

The knowledge economy requires a vital and modern higher education system. Hence, public and land grant universities must develop such capacity. The role of land-grant universities is critical to meeting the educational requirements of the global society. Thus, higher education is a shared public good and it promotes nation building and community development.

As supported by the GEM model, the legislature can write a law framing global engagement of land-grant colleges and universities and include provisions for its funding. On the other hand, the federal government should ensure that states meet their obligations to provide one-to-one matching requirements. Furthermore, states must also equalize the same percentage of match funding formula for both 1862s and 1890s universities (Lee & Keys, 2013). The equal distribution of funds to land-grant universities must ensure global engagement, understanding by global engagement the integration of local and international partnerships.

Scholarship of Teaching

The GEM model proposed that relationships and partnerships are seminal components for universities' global engagement in the network society. Tisch & Weber (2004) suggest that partnerships have the power to transform events. Still, they often require putting differences aside for collaboration and co-creation. Tisch & Weber (2004) believe that "every man for himself" is a debunked theory. When given a choice, people will choose to collaborate over being competitive. Today's world is complex, and organizations cannot secure resources and leverage capacities on their own. Today, organizations like civic societies, law, and education interconnect to provide meaningful services (Tisch & Weber, 2004).

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Both, the GEM model and Tisch & Weber's (2004) framework illuminate the need to exercise extraordinary powers of collaboration and partnership to survive in a 21st century, globalized environment. The university classroom, defined as any open or enclosed space where teaching and learning takes place, offers an ideal space to teach and develop soft-skills and networking skills coupled with social justice principles. Positive leadership, collaborative frameworks, fairness, responsibility, and trust are only some of the qualities industries will be looking for when partnering with higher education (Evers & Lokhoff, 2012).

Simon (2009) notes, universities will need to participate in alliances "at home and abroad" (p. 9), which means sustaining and building relationships with groups and individuals from other cultures and ethnic backgrounds. As noted earlier, multicultural competence and multilingual education become highly regarded skills in the global society.

Scholarship of Engagement

The scholarship of engagement consists of (1) discovery, integration, application, and/or teaching that (2) incorporate reciprocal practices of civic engagement into the production of knowledge. The scholarship of engagement in this frame is a reciprocal and collaborative relationship between the university and the community and it cuts across disciplinary boundaries and teaching, research, and outreach functions. (Boyer, 1996)

The GEM model emerged from studying community engagement initiatives in three land-grant universities. It is a theoretical model to possibly design, describe, and assess the scholarship of engagement. Paradoxically, this model was not achieved through scholarship of engagement, rather, through scholarship of discovery. I believe the GEM model has contributed to understanding the diversity, equity, and inclusion efforts from an international lens and making international cultures and Native cultures more visible. Consequently, scholarship of

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engagement will hopefully include initiatives with underrepresented communities at a global level, e.g., Native or Indigenous Peoples, refugee populations, displaced communities, and Diasporas.

Center for the Future of Land-Grant Education, WVU

The Center for the Future of Land-Grant Education (Center) is a recent unit in the College of Education and Human Services at West Virginia University. The goal of the Center, as noted on its website, is

to be a national leader in the advancement of knowledge within the following areas: Land-Grant and Public Higher Education Policy and Practice; Student Access, Retention, and Success; Higher Education Engagement, Community Outreach, and Economic Development; Land-Grant Leadership and Institutional Effectiveness” (WVU, 2022)

In the context of the GEM model, I see an opportunity for the Center to become a connection node for American land-grant universities as well as community entities. This event in turn, will help its positioning as a leader in the advancement of said areas.

The Center has affiliations with several education programs in the field of higher education and educational leadership. The point of these programs is to understand systemic and emerging issues in higher education and equip interested students with the tools for problem-solving (WVU, 2022). These programs are an excellent resource to teach the importance of partnership and engagement on both local and global levels as well as soft-skills to develop and foster a relational approach.

The GEM model may also be instrumental to the Center’s study on land-grant universities’ contributions to community and economic development based on the Innovation

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and Economic Prosperity (IEP) data. IEP is a self-assessment study headed by the Commission on Economic and Community Engagement of the Association of Public and Land-Grant Universities.

The Center can pilot an Information Management System that will collect information on partnerships. Land-grant universities, specifically, can receive special privileges and free access to the software. Markova et al. (2021) features of modern systems include fluctuations and adaptations to environmental factors, socio-economic factors, cooperation, and interdependence (Markova et al., 2021). Since higher education operates in global environments that undergo constant change (i.e., the appearance of new stakeholders on the market, fluctuating student body, increased demands to offer international services and programs, reconciling global/local interests), a comprehensive IMS would be necessary.

Inviting faculty and administrators to a ‘Think Tank’ session is a productive way to share ideas and find innovative solutions. Think tank meetings are also good networking opportunities. Jones et al. (2019) conducted a study that described the effects of a think tank session on innovative programming deliberations in an educational institution, noting the technique helped promote knowledge sharing. Conceptually, think tanks emerge from policy and business. Those with high-value expertise and knowledge assemble and collaborate to offer advice, information, and ideas on a specific subject or policy decision. Industries and sectors like public health, education, and the military have used this method to generate strategies and reform ideas (Jones et al., 2019). Once again, soft-skills, e.g., conversation, flexibility and open-mindedness collaboration is the basis for successful sessions.

I have presented the suggestions above in relation to the GEM model, positioning this dissertation research in a discursive relation with the Center’s ongoing work. The Center for the

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Future of Land-Grant Education at West Virginia University is doing remarkable work in promoting and facilitating dialogue and policy decisions in higher education that target global and local needs. Ultimately, the Center's research and actions contribute to the legitimation and institutionalization of land-grant universities' global engagement.

Conclusion

The global society is an interconnected net of partnerships across nation-states borders. The effect of globalization in open systems is unquestionable. However, the change pace of higher education institutions, a highly vertical organization, usually does not keep up with changes occurring in their encompassing context (Bolman & Deal, 2013). For example, the redefinition of democratic and inclusive society contests university admission criteria; administrative units become obsolete; new university missions call for engagement but reward systems favor the scholarship of discovery.

Change and continuity are concomitant processes in a dialectic relationship. Global engagement is an inflection point conceptualizing the modern land-grant university. A slow and complex internationalization process was set in motion in mid-nineteenth century and fifty or seventy years later, we can see much restructuring. However, conversations about land-grant global engagement are not ubiquitous. Thus, I argue that land-grant global engagement is not yet an institution, meaning "shared rules and typifications that identify categories of social actors and their appropriate activities or relationships" (Barley & Tolbert , 1997, p.96).

The ultimate goal of the Global Engagement Model for Land-Grant Universities is to join the conversation around individuals' interconnectedness and contribute, from my own interconnected global and local perspective, to the institutionalization and cognitive legitimacy of land-grant universities' global engagement.

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Cognitive legitimacy refers to the organizational legitimacy that an institution or organization establishes and maintains to present in front of stakeholders. In Cruz-Suarez's (2014) view, a strong voice of support from critical constituencies is dependent on the desirability and acceptance of an organization's activities. Legitimacy facilitates access to other resources that are necessary for survival and growth. Cognitive legitimacy is one of the most extensive and durable types.

Organizations must preserve legitimacy in the face of (often tedious and strenuous) changes (Cruz-Suarez, 2014), which may occur on social or socio-political levels. We can also differentiate cognitive from sociopolitical legitimacy, where the former refers to knowledge about the organization, while the latter refers to how well the company adheres to norms (Cruz-Suarez, 2014).

There is an aspect of both cognitive and sociopolitical legitimacy concerning the current study. Land-grant universities need to appear globally and locally connected to stakeholders to receive international funding, grants, increased access to ranking systems, and global visibility. In other words, land-grant universities must show that they can adapt to globalization while holding onto some of the basic elements of the 1862 Morrill Act, which made them possible in the first place. Global/local engagement is a good way for higher education to formally and informally document interest in, knowledge and action in local/global initiatives, programs, collaboration, academia, and research.

Another way of increasing cognitive legitimacy would be for institutions to receive public recognition for their globalization efforts through awards. For example, the NAFSA's Senator Paul Simon Award for Campus Internationalization. This award recognizes "US colleges and universities that are making significant, well-planned, well-executed, and well-documented

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progress toward comprehensive internationalization.” (NAFSA, 2022) Or, APLU’s Institutional Award for Global Learning, Research & Engagement. The award honors universities with inclusive global research, learning, and engagement approaches. APLU aims to bring together all land-grant universities and ensure they are offering high-quality education that is global and globally oriented. Some of the categories in APLU award are equity, diversity, and inclusivity. Others are internationalization of research and engagement, leadership and pervasiveness, and assessment or how well the university measures the progress of initiatives (APLU, 2022).

Universities that want to participate in APLU’s framework gain legitimacy, acknowledging that while globalization has changed the nature of higher education, how they function, and the populations they now serve, the universities still have fundamental responsibilities to honor the state-federal partnership that have found them.

In her essay, Simon (2009) drew insights from working at MSU to conceptualize a World Grant, which moves beyond nations' borders to tackle global issues and communicate with a range of populations. According to Simon, globalization involves a multidirectional flow of information as knowledge proliferates from different places and disciplines. World grants rely on the idea that issues across nations interconnect. Simon talked about the goals of the world grant ideal, which includes focusing on both present and future-oriented education and producing, disseminating, and applying knowledge for economic development.

The World Grant also presents opportunities for land-grant universities to ascertain and maintain cognitive legitimacy. A trend toward global and local communication and interconnectedness may mean securing collaborative research opportunities with overseas educational institutions, working with community outreach partners, such as libraries, academic

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centers, hospitals, or healthcare institutions, and offering students chances to do hands-on research outside of the university classroom context.

Cognitive legitimacy includes any actions that land-grant universities and other entities, e.g. NAFSA, APLU and the Center for the Future of Land-Grant Education could take to bolster their presentation to stakeholders including industry, entrepreneurs, policy makers and state legislators, who are likely investing time, effort, and money into the higher education with the expectation of returns.

By maintaining cognitive legitimacy, land-grant universities can continue to receive funding from students, state and federal government, foundations, industry, and other sources. More than that, they can show that they are working toward more diverse and integrated community, engagement on the local, international, and global realm.

One of the ultimate goals of the higher education system is the public good, for which they have been striving. Land-grant universities play a special role in educating engaged citizens from a local and global perspective. Land-grant universities offer a central hub interconnected with partners nationally and internationally. Local and international actors can utilize the engaged land-grant space to produce, integrate, apply and disseminate research to produce solutions for the world's pressing problems affecting everyone regardless of location. The United Nation's (2015) Sustainable Development Goals is an encompassing list of grand world-problems worth repeating:

no poverty, zero hunger, good health & wellbeing, gender equality, quality education, clean water/sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduced inequality, sustainable communities and cities, responsible consumption/production, climate

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change action, life below water, life on land, strong institutions and building partnerships. (UN, 2015)

At last, there is no more vivid sense about the world's interconnectedness than Covid-19 pandemic. Personally, it has been three years since I have seen my family in Argentina. The world's health crisis, border closings, and travel restrictions have prevented me from sharing a physical space with my family but, I feel as close to them as ever. Likewise, my soul sister Claudia and I spent four years sharing a space during college and spent 20 years living 5,000 miles away from each other. Yet, her passing has impacted my life in such way that no other event besides the birth of my children has. This idea is important since it is a testament to how locale is in a subordinate position to time and interconnection. A world telling us '*stop traveling*' can never limit our engagement with the other. After all, time invested precedes space in reciprocal *relationships*.

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APPENDIX

Appendix B: Semi-Structured Interview Guide

1. How would you describe the land-grant university engagement in your institution?
2. How does the land-grant university engage with the public in today's context? What specific strategies have you observed in your institutions?
3. How does your land-grant university engage at the local level within the era of globalization?
4. How do land-grant universities engage at the international level in the era of globalization?
5. What is the impact of the university's engagement? (impact on the community and on the university)
6. If you have been involved in the integration of local and global engagements, what specific strategies did you find beneficial?
7. If you have been involved in the integration of local and global engagements, what specific strategies did you find challenging?
8. What barriers have you encountered in the integration of local and international engagement?
9. To what extent are community networks being created, if any, as a result of initiatives undertaking through land grant universities' global and local engagement collaboration?
10. What any other relevant information can you share that we have not yet discussed?

Appendix C: IRB Cover Letter



[Date]

[Participant Information]

How does the land-grant University of the twenty-first century conciliate its local engagement model with the new imperative of international engagement? This question has sparked my dissertation research and your experience and insights in the field of local/international engagement processes would be most beneficial for this study.

The purpose of this letter is to request your participation in an interview for my dissertation titled “Internationalization of Land-Grant Universities: Toward and Engagement Model that Conciliates Local and Global Interest”. My name is Lorena Ballester and I am a PhD candidate in Higher Education at West Virginia University. My Committee Chair is Dr. Erin McHenry-Sorber, Associate Professor in Higher Education at West Virginia University.

My dissertation research examines land-grant universities’ institutional responses to the global context. I analyze exemplary cases of land-grant universities that have embraced and engaged with the global context while remaining committed to their local publics.

The interview will last approximately 30 min. Your participation is voluntary and your involvement in this project will be kept as confidential as legally possible. The interview will be conducted via videoconference software (Zoom, Skype, or Teams) and will be recorded and transcribed. The raw data will be kept in a locked computer with access restricted to the researcher. The recording and transcript will be permanently deleted three years after the study is concluded.

I hope that you will participate in this research study as it will help me understand how land-grant universities adapt their engagement model over time. Please note WVU’s Institutional Review Board acknowledgement of this project is on file. Thank you very much for your time! If you would like to participate in the interview, or should you have any questions about this letter or the study, please contact me by email lballest@mix.wvu.edu or at 304-680-4070 or contact my dissertation chair Dr. McHenry-Sorber by email ecmchenry.sorber@mail.wvu.edu or at 304-293-2090

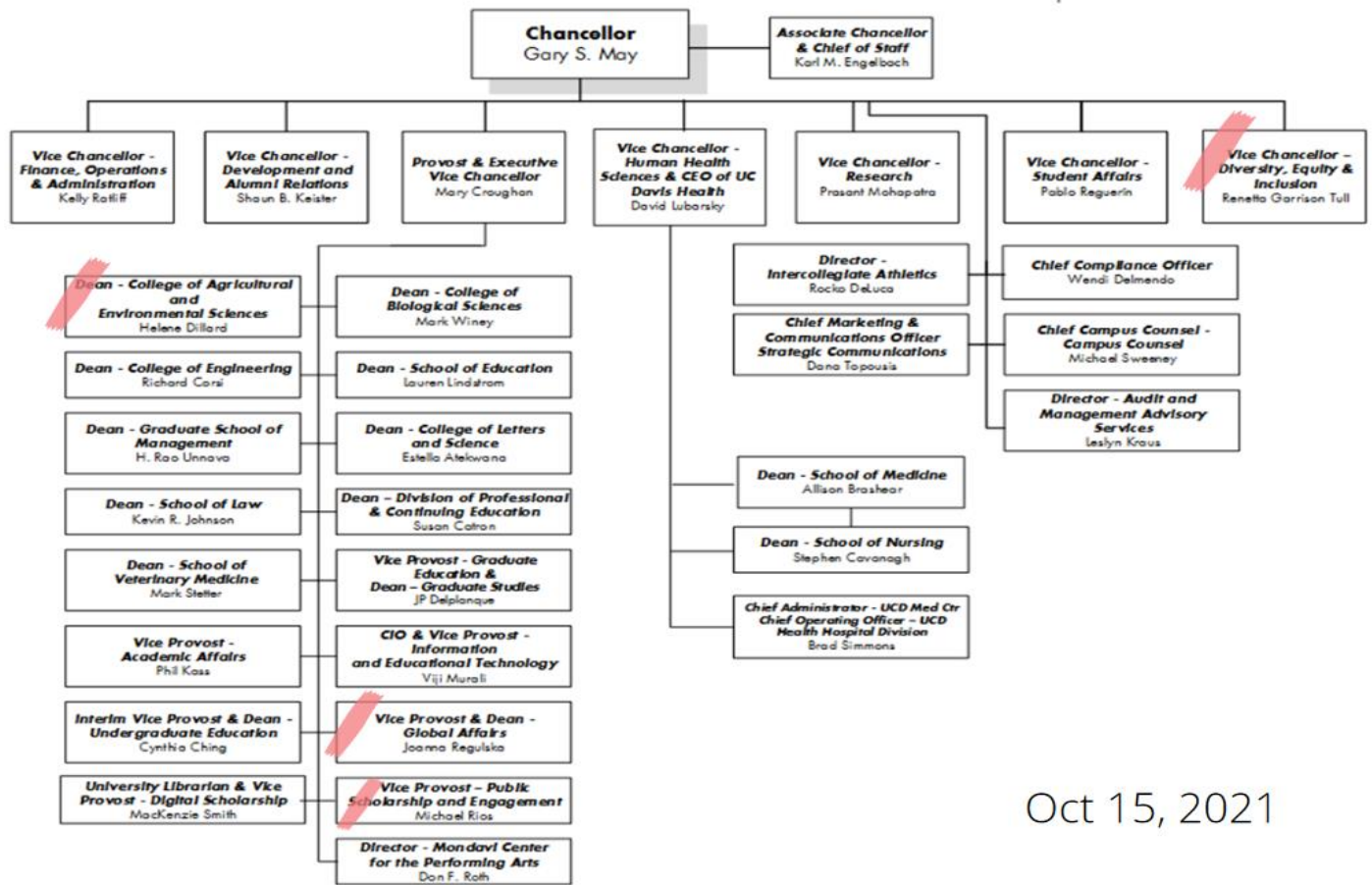
Thank you, again, for your kind consideration of this request. I look forward to speaking with you soon.

Best regards,

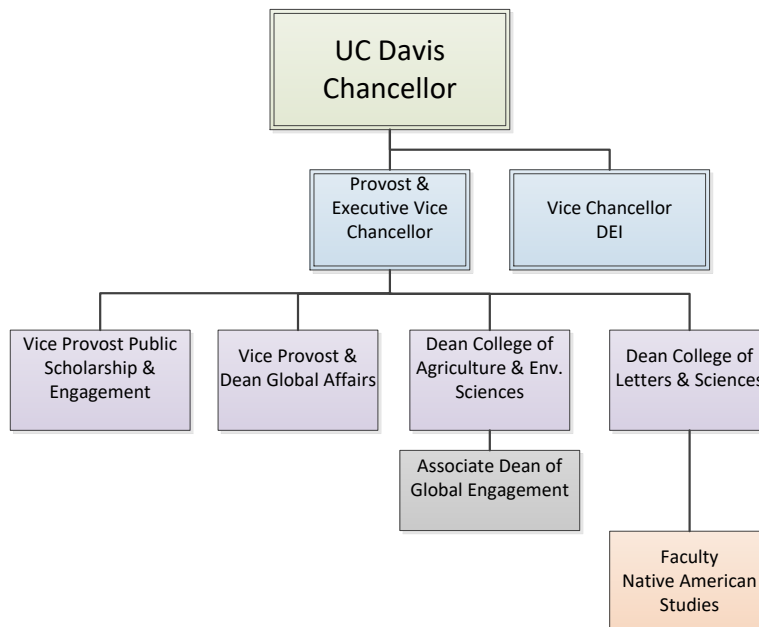
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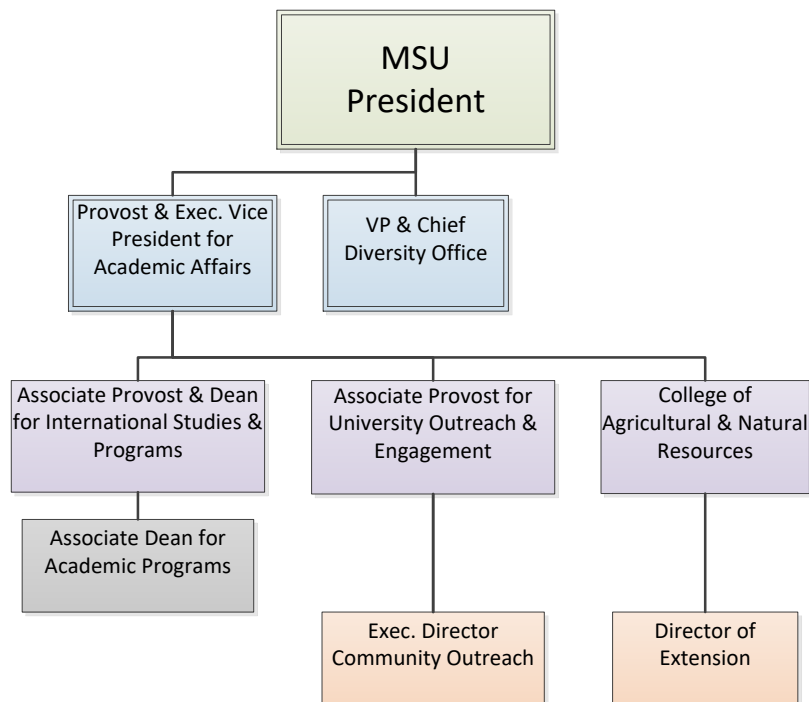
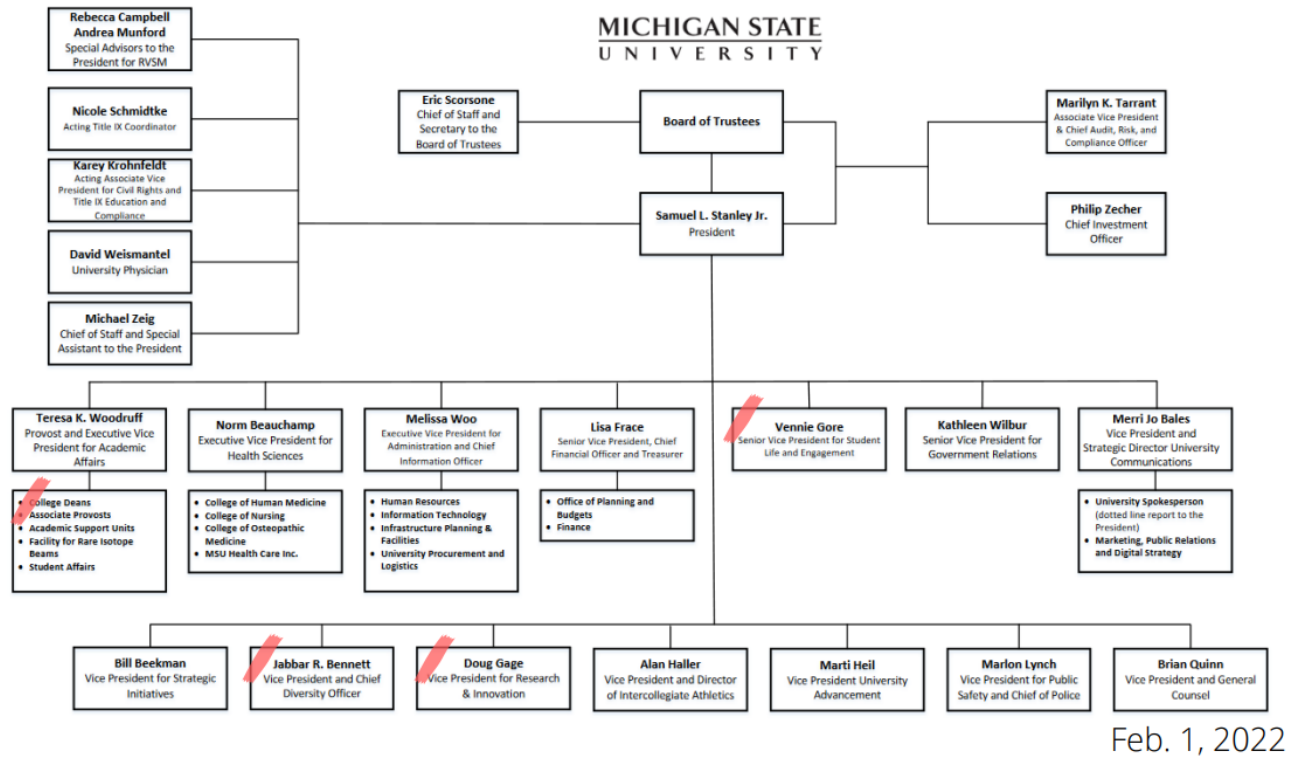
Appendix D: UC Davis Organizational Structure



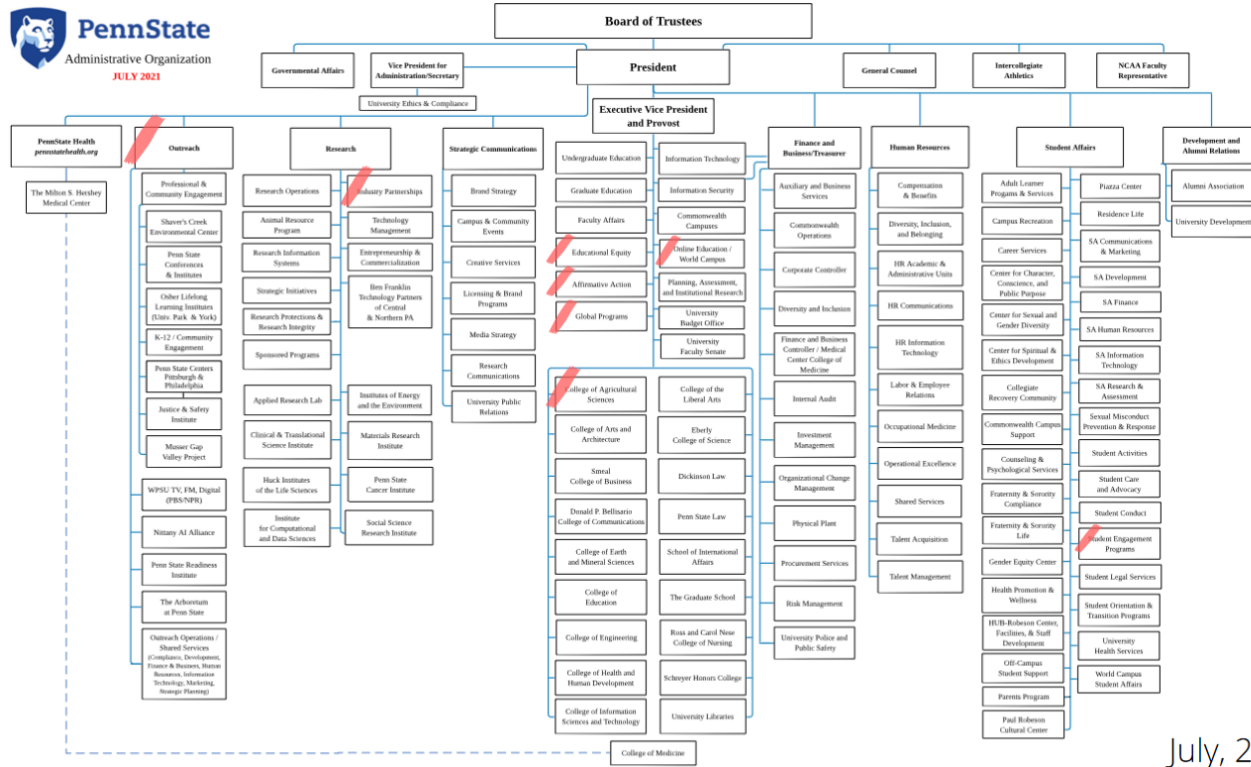
Oct 15, 2021



Appendix E: MSU Organizational Structure



Appendix F: Penn State Organizational Structure



July, 2021

