Original Research

Innovation through Community Partnership Mapping and Analytics

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Abstract

Higher education institutions are increasingly required to provide a measured response to perceptions that challenge institutions' value proposition as assets to their communities. This article focuses on best practices in the campus' efforts to create a pathway to demonstrate community impact. The ability of systematic tracking of partnership and project data is foundational. This article discusses how institutions' research agenda can expand from basic metrics to analyzing leading indicators of partnership success, and how a sophisticated dataset can be ultimately leveraged to measure impact. The article concludes with a reflection of the challenges faced by other higher education institutions and the commonality in institutions' desire to systematically track and visualize community engagement efforts.

Keywords: impact, measurement and assessment, data, strategic planning

Introduction

Metropolitan institutions are extensions of their local, regional, and global communities. Bardo writes, "A metropolitan university is not merely a university *in* a city, it is *of* the city. Its focus is on the total educational needs of its area and the interlinkages of those needs with the changing and shifting conditions in the world at large" (Bardo, 1990, p. 42). The concept of the metropolis is boundless rather than limiting, and institutions' ability to connect their identity to the

metropolis allows them to thrive by bringing relevance to their instruction, research, and service missions.

Several years ago, the University of Nebraska at Omaha (UNO) launched a campaign with the slogan "Welcome to Our Campus, Otherwise Known as Omaha." This campaign reflects UNO's metropolitan identity and intrinsic values of engagement and collaboration. This identity originates in the 1908 founding documents, which identify the purpose of the then University of Omaha as "the promotion of sound learning and citizenship" (as cited in Owen, 2016). Indeed, civic and community engagement are inherently connected to the learning process at UNO.

On an annual basis, UNO offers over 600 community-engaged courses, including service-learning and community-based learning courses. Each year, around 6,000 to 7,000 unique students are involved in some form of community engagement at UNO. Through service-learning, community-based learning, engaged research, and volunteerism, UNO engages hundreds of community partners. UNO is also home to the Barbara Weitz Community Engagement Center (CEC), which houses campus and community organizations. The CEC is a catalyst for community engagement by bridging campus and community and igniting opportunities for collaboration.

In the 1970s the University of Nebraska Board of Regents' vision for UNO as Nebraska's metropolitan institution was to be "an institution aware of its role in the societal mission of achieving a better life for all" and one that is "concerned more with society's welfare than with its own self-preservation" (cited in Owen, 2016).

As profound as this statement is, predominately external forces have changed the higher education landscape. Similar to other institutions, UNO faces increased scrutiny. Higher education institutions must provide a measured response to perceptions that challenge institutions' value proposition as assets to their communities. Metrics and research should be central to this response.

While increased scrutiny highlights the importance of establishing metrics for community engagement, the desire to create engagement metrics largely derives from the campus community. In 2015 and 2016, the UNO Office of Academic Affairs engaged the campus community in a community engagement self-assessment. In this research study, campus leaders, faculty, and community engagement professionals were interviewed to gain a better understanding of unit-specific community engagement conceptualizations and the desired direction for the institution-wide engagement research agenda (Starke, Shenouda, & Smith-Howell, 2017). There was consensus regarding the importance of measuring impact of engagement efforts. The desire to measure impact was two-fold, both internally and externally focused. Internally, the critique was that while UNO tracked student participation in community

engagement, no substantial research was conducted on the impact of the engagement experience on the students (e.g. retention, civic engagement, employment). Externally, interviewees expressed frustration with UNO's inability to demonstrate systematic community impact beyond project-level outcomes and/or anecdotal evidence.

The desire to measure impacts is not unique to UNO. This has been an area of focus for many engaged institutions (Driscoll, Holland, Gelmon, & Kerrigan, 1996, Elder et al., 2008; Flynn, 2015; Holton, Early, & Shaw, 2015; Jenke & Medlin, 2015; and Rosing, 2015). The importance of quality assessments, outcomes, and evidence of impact is widely recognized. Incorporating assessments into institutions' engagement practices increase accountability, data-driven decision making (Gelmon, 2000, Gelmon et al., 2001), and are a characteristic of institutionalized engagement (Furco, 2002). Institutions, such as Portland State University, recognize that measuring impact is important for institutions to "demonstrate their value to the community at large as well as to legislative bodies" (Flynn, 2015, p. 169).

Based on UNO's self-assessment, Engagement Cabinet[1] administrators sanctioned the creation of the UNO Community Engagement Measurement, Assessment, and Evaluation Committee (hereafter Engagement Measurement Committee). The goals of this committee include the creation of a framework for strategic data gathering, analysis, and reporting, and the formalization of an institutional engagement research agenda. Central to UNO's research agenda is the creation of a mechanism that allows for systematic partner-centered tracking, analysis, visualizations, and multi-layer mapping.

This article focuses on UNO's efforts to create this framework for partnership analysis and visualization. The framework illustrates best practices and challenges. The goal of this article is to provide practical insights that could facilitate other institutions' efforts to track partnership engagement.

The article starts with a brief description of the Community Engagement Partnership Initiative framework while focusing on the importance of leveraging service-learning and the agile/scrum methodology. Then the authors address the value of data democratization, which can only occur if the framework is driven by campus input, reflects community voices, is dynamic and inclusive, and tailors information to accommodate various audiences. Finally, the article discusses how a strategic framework must address sustainability concerns and should be integrated into institutions' strategic planning process, which ensures relevance of community engagement and its data collection. While the framework allows institutions to demonstrate and

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[1] The engagement cabinet at UNO consists of the Senior Vice Chancellor for Academic Affairs, the Associate Vice Chancellor for Academic Affairs and Dean for Graduate Studies, the Executive Associate to the Senior Vice Chancellor for Community Engagement and Director of the Community Engagement Center, and the Vice Chancellor for Student Success.

visualize community engagement, it is not the end goal; rather, it is an integral and strategic stepping stone in institutions' roadmap of measuring community impact. The article concludes with a reflection on the challenges faced by other higher education institutions and the commonality in institutions' desire to systematically track and visualize their engagement efforts.

The Community Engagement Partnership Initiative

In 2016 UNO recognized that despite its national recognition for community engagement, including Carnegie Classification, a Presidential Award Recipient in the Honor Roll, and an Excellence in Community Partner Engagement Award, the institution was lacking a comprehensive listing of its community partners. While units across the institution were highly engaged, UNO was unable to answer simple questions about how many community partners it was engaged with, who these community partners were, what the focus was of the engagements, where the engagements took place, and the type of engagement. Without this information, UNO was not positioned to "study the impact both of individual partnerships and across partnerships" (Driscoll, 2014). Similar to other institutions (Flynn, 2015; Holton, Early, & Shaw, 2015, Rosing, 2015), UNO recognized the need to track community partnership data.

As a response to this need, the Engagement Measurement Committee collaborated with multiple graduate-level, service-learning capstone classes in the College of Information Science & Technology to create the Community Engagement Partnership Initiative (CEPI). CEPI is a framework that allows UNO to track, visualize (including through multi-layer mapping), and analyze its community partners and projects.

The CEPI mapping and analytics framework serves multiple levels of utility. On the micro-level, this tool allows UNO to answer questions and provide complete transparency regarding community partnerships and projects, including responses to the 'who, what, where, when, why, and how' questions. The table below provides some of the types of questions UNO can expect to ask and answer.

Table 1. Micro-level utility (illustrative; not comprehensive)

Category	Question
Who	Who are the community partners we are engaged with?
	Who are the campus partners (college and units) involved in community engagement?
What	What organization types do UNO's community partners represents (e.g. nonprofit, government, schools, etc.)?
	What is the focus of the engagement work?
	What are the outcomes associated with the projects?
Where	Where are our community partners located?
	Where or which legislative districts are we engaged in?

When	When have we engaged with our community partners?
Why	Why are we engaged?
How	How long have we engaged with our community partners?
	How many community partners are we engaged with?
	How engaged are we in our community?

While providing transparency and answers to the questions above, CEPI also becomes a powerful mechanism that visualizes the extent of UNO's community collaborations, thus demonstrating how UNO is operationalizing its metropolitan mission.

Below is an example of one multi-layer map that demonstrates collaborations with community partners by legislative districts (Figure 1). The visualization is dynamic and allows users to drill down to answer specific questions by using the filters. Each dot on the map represents one community partner and the interactive nature of the data points allows for complete data transparency.
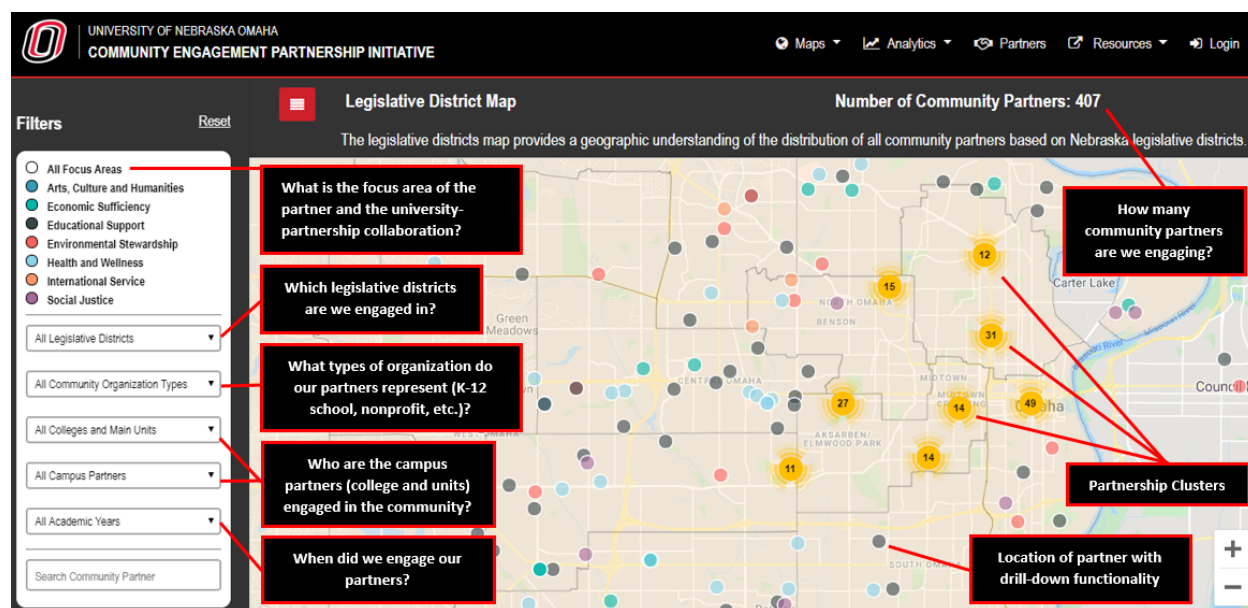

Figure 1. Dynamic and interactive legislative district multi-layer map (based on a limited dataset)

Leveraging Service-learning

Universities today have several important missions, among them advancing student learning, scholarship, and community engagement. A key part of the CEPI innovation was to connect these three important goals by leveraging service-learning. Service-learning is a method of teaching that combines classroom instruction with meaningful, community-identified service. This form of engaged teaching and learning emphasizes critical thinking by using reflection to

connect course context with real-world experiences. Service-learning faculty collaborate with community organizations as co-educators and encourage a heightened sense of civic engagement and personal responsibility for students while building capacity and contributing community impact (UNO SLA, 2019). Figure 2 shows the traditional service-learning model.
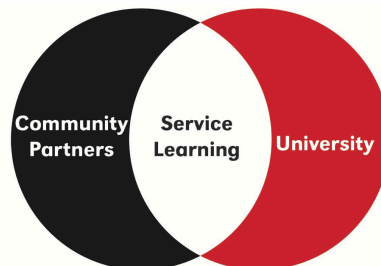

Figure 2: Traditional service-learning model

Developing CEPI through several graduate-level service-learning capstone courses was more challenging than simply engaging the services of professional developers and consultants, or to outsource it to a software development company. Outsourcing the assignment was not an option for the Engagement Measurement Committee, as the committee has no operational dollars or budgetary discretion. By leveraging service-learning classes, UNO was able to create the software without utilizing significant financial resources. More important, however, is that this framework demonstrates UNO's commitment to community engagement. How better to reinforce such a commitment than to connect its creation to student learning outcomes, thus reflecting the ethos of a metropolitan university?

Agile Framework

Students in graduate-level service-learning capstone courses developed the CEPI framework over three semesters. The students were enrolled in the Management Information System program in the College of Information Science and Technology.

The capstone students created a statement of work in collaboration with the Engagement Measurement Committee. The requirements were developed using the agile scrum framework and methodology (Neon Rain Interactive, 2019; Drumond, 2019; James, 2019; Westland, 2018) over several two-week sprints. At the end of each sprint, there was a demo which allowed the committee to provide feedback and iteratively build the software. The iterative process of testing the technology, providing feedback, and having the issues fixed in the following sprint resulted in significant efficiency and responsiveness. Figure 3 demonstrates the agile scrum methodology.
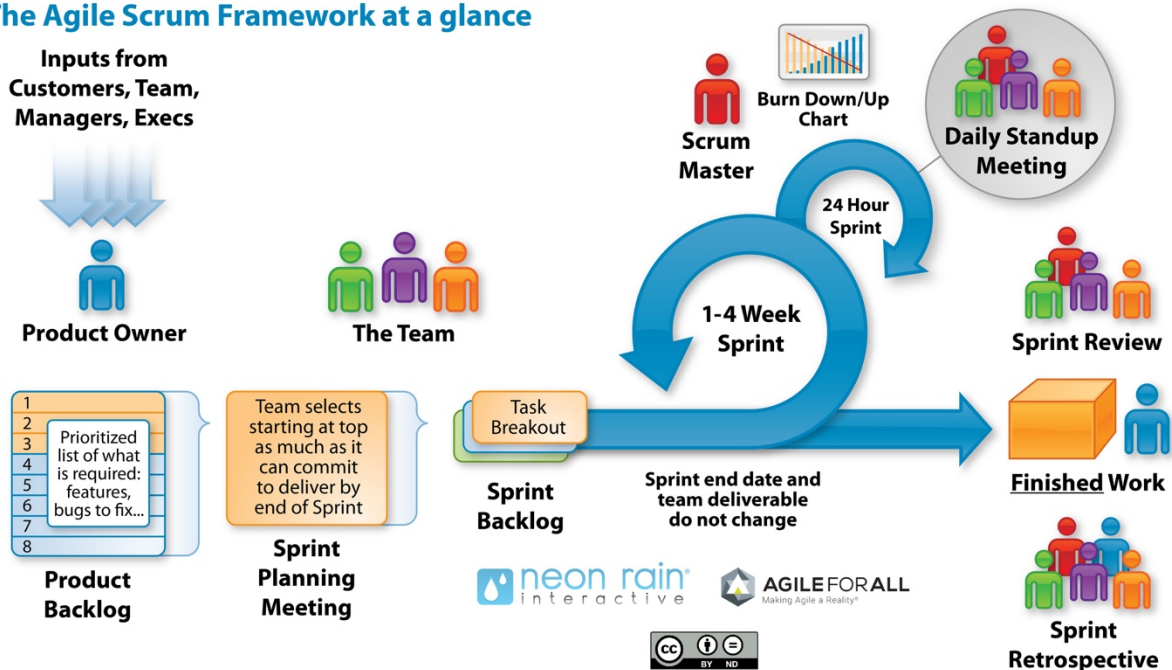
The Agile Scrum Framework at a glance

Figure 3: Agile scrum framework methodology

Data Democratization

Fragments of community partnership data often exist in silos, and non-expert users must be able to exploit it to extract knowledge, gain insights, and make well-informed decisions. The value of the knowledge discovered from big data could be of greater value if it is available for later consumption and reuse (Espinosa, Garriga, Zubcoff & Mazon, 2014; Winter, Wiseman, & Muirhead, 2006; Brown, Bammer, Batliwala, & Kunreuther, 2003; Shalowitz et al., 2009) especially in community groups from low-income neighborhoods. Such community groups have the most to gain from full access to data, yet the least capability to achieve that access or make use of the data once they have it. The gap is often filled by intermediaries who provide access to data and assist with analysis (Sawicki & Craig, 1996). Universities fill in the role of such intermediaries by empowering community groups to participate fully in planning and policy discussions that affect their neighborhoods. Universities, such as UNO, play this role of information providers. Data democratization leads to better transparency, which allows universities, government, and community leaders to work more cohesively by using better data to enhance decision-making capabilities. For those benefits to occur, buy-in is essential.

Community Partner Voices

Since partners are central in the CEPI framework, ensuring community support for this effort was important. After two capstone courses were completed, the Engagement Measurement Committee engaged community partners to solicit feedback. The committee conducted a seminar presentation and six community partner focus groups, reaching more than 50 community organizations.

The Engagement Measurement Committee collaborated with the Service Learning Academy and demonstrated the mapping technology for the partners during the service-learning seminar, an annual week-long opportunity to bring community partners to campus with the goal of facilitating engagement. Based on this, the committee decided that more in depth focus groups would be valuable. Following the seminar, the Service Learning Academy sent out requests for focus group participation to its community partners. The Engagement Measurement Committee doubled the number of scheduled focus groups with the goal of limiting participation to around 10 participants for each focus group. To the extent possible, community feedback was incorporated into the third capstone class' statement of work. Feedback deemed out-of-scope was placed on a roadmap for future development

The community partners' input proved invaluable and provided a refreshing perspective on the framework. While CEPI allows for community partners to access data, UNO is responsible for data entry. Partners confirmed that this was an appropriate approach but wanted to ensure that all collaborations with UNO would be reflected in the framework. Partners were also positive about the creation of CEPI and recognized that it meets an almost universal need, namely the need to demonstrate organizations' partnerships outreach efforts.

Furthermore, partners questioned various aspects of the framework. Some feedback reflected a reaction to how the framework was set up, including how categories were established, whether they were appropriate, and how their respective organization fit into the categorizations. This feedback led to expansions in our categorizations.

Transparency was another interest of the community partners. While partners appreciated the information, they critiqued reports that included aggregated data without the ability to drill-down and get to the underlying data. The latest iteration of the technology provides drill-down functionality to aggregated numbers, thus increasing transparency. In addition, responsive to the partners' feedback, the third capstone class improved the ability for data to be exported to Microsoft Excel and PDF.

Much of the feedback was analytical and resulted in discussions on how to recognize complex issues such as partnership sustainability, intensity, and networks. This led to a variety of

innovative analyses within the application. The community partners pushed the committee's way of thinking by discussing how engagement is becoming more holistic and connects to multiple topics rather one overarching focus area. This resulted in a significant change in the data model and allowed for projects and partnerships to connect to a variety of subcategories and a creation of a holistic score.

Importantly, the focus groups provided insights on how partners envisioned using the technology to advance their own goals. Understanding this vision allows the committee to make development decisions to benefit UNO and its community partners.

The Engagement Measurement Committee was surprised to learn that despite its primitive stage, community partners were aware of the framework and were utilizing it to some extent. For example, during community partner focus groups, two organizations that are part of the same coalition to advance access to the arts in K-12 schools, discussed how they reviewed the CEPI data during a coalition board meeting. The data demonstrated how both organizations were collaborating with UNO and the same K-12 school to offer arts programming to that school. Based on this, the coalition made the informed decision to expand access to other schools.

Campus Buy-In

Community engagement breaks down silos. The tracking of community engagement, and the potential design of a systematic framework for visualizing engagement, cannot happen in a silo. Campus buy-in is essential in the ability to do institution-wide engagement tracking and analysis. UNO's movement towards systematic partnership data tracking, analysis, and visualizations was based on campus input. First, the initial effort to move towards community partnership tracking was a direct result of the feedback received in the engagement self-assessment. Indeed, the basis for tracking partnerships was laid by the assessment participants, which included administrators, college deans, faculty members, and engagement professionals.

Wilhite and Silver (2004) warn that stakeholders can become disengaged if an atmosphere of "pseudo-consultation" exists. In this instance, the campus community believes that although their feedback is solicited, it will not affect decision-making. Therefore, it is essential that in each feedback instance input is analyzed and incorporated. The campus community systematically and consistency provided feedback on the CEPI framework which was essential to the decision-making process. A few efforts of campus input are worth highlighting:

First, the engagement mapping efforts were presented at several campus-wide Strategic Planning Forums. In one of the 2017 forums, the audience representing faculty, staff, and students were asked to evaluate a prototype and provide feedback. This resulted in over 100 suggestions and comments. The overwhelming support resulted in the Engagement Measurement Committee's

efforts in advancing its prototype by working with the capstone students. Improvements, based on the suggestions, included: (1) the expansion of dataset with a variety of metrics, including project-level details, student involvement, engagement types, cascading campus partners, and organization types; and (2) incorporating legislative districts as a core component of all maps, visualizations, and reports.

Additionally, campus participants asked important questions about the equity of partnerships and alluded to potential gaps in partnerships and sustainability of partnerships. While these questions did not have an immediate response, they were placed on a roadmap for further analysis and have been, to some extent, addressed in future iterations of the technology.

Secondly, the Engagement Measurement Committee was essential in providing strategic input. This committee consisted of representatives from the Divisions of Academic Affairs and Student Success, and included the Community Engagement Center, Service Learning Academy, and the Office of Civic and Social Responsibility, as well as representatives of units with expertise in assessment and evaluation. These units regularly collaborate with campus and community partners, and therefore are well positioned to provide feedback. Before every capstone, this committee decided on its primary goals and identified stretch goals for the capstone. After each capstone class was completed, the committee had an opportunity to test the technology, provide user experience feedback, and reassess the various components of the framework. The feedback varied from technological fixes to data model changes, and from implementing logic-based forms to expanding the captured metrics.

Finally, engaging faculty members for input was non-negotiable. Faculty teach service-learning and community-based learning classes, lead engaged research efforts, and mentor students through many curricular and co-curricular engagement opportunities. In partnership with the Center for Faculty Excellence, focus groups and small meetings were scheduled to solicit feedback. The feedback from faculty members provided a unique perspective of the framework. Feedback included incorporation of definitions of all metrics, clarification of what should be included and what should be excluded from the database, and the request for faculty recognition within the framework. Faculty were also critical of the prospect of adding another reporting layer to their workload and stressed the importance of connecting the framework to faculty activity systems.

Whereas previous iterations of the framework provided recognition to the units involved in the collaboration, there was no way to capture the faculty and/or staff involved in the project; the newest iteration incorporates this important component. In addition, a user guide was created with expectations on what to include in the application, and definitions were embedded throughout the technology. While we were unable to respond to concerns related to additional reporting requirements immediately, this advancement has been discussed with university

leadership and is recognized as a top priority for future development, as discussed in the sustainability section.

The process of allowing stakeholders, whether internal or external, to voice their opinion results in buy-in and commitment. Lencioni (2002) explains that the process of creating buy-in through creating opportunity to allow stakeholders to voice their opinions should not be mistaken for a desire for consensus. Buy-in grows, in part, when feedback is genuinely solicited in an iterative process and when this feedback is systematically incorporated in the decision-making process, where appropriate.

Dynamic and Inclusive

To facilitate campus buy-in, it is important that any data presentation is relevant to specific units. While campus leaders may be interested with the institutional community engagement data, college deans and unit chairs/directors are primarily interested in engagement data relevant to specific units. This means that each map, visualization, chart, table has to be dynamic by incorporating drill-down capabilities to colleges and main units, as well as departments, schools, and campus programs. The ability for each unit to be recognized for its partnerships and collaborations in the framework, in addition to the buy-in process, resulted in various units requesting to enter their data into the CEPI framework.

Further, it is important to recognize the different needs of various internal stakeholders. UNO is a decentralized campus in which units conceptualize community engagement in different ways (Dodge, Starke, Smith-Howell, & Woods, 2019). The engagement dataset should be inclusive and flexible to avoid disengagement from specific campus units. For example, while the majority of the community engagement efforts occurs with nonprofit community partners, there are specific colleges that have expressed the importance of including small businesses as part of the community partnership definition. These colleges facilitate community-based learning for the public good with micro-businesses.

By implementing an organization type dimension to the dataset, UNO is able to include community engagement efforts with these colleges' business partners, while still allowing end-users to differentiate (and possibly exclude) specific organization types from the data presentations. Therefore, the dataset should be inclusive enough to allow for relevance to all units, while providing data integrity through clear definitions, labeling, and user interactions.

Audiences

It is important to recognize the myriad audiences that could have interest in community engagement and partnership data. The key is to reframe the same information into slightly different presentations relevant to different audiences. For example, filters allow users to drill

down to answer specific questions. Each data representation is dynamic and allows for unit-specific drill-down functionality, making the data presentations relevant. In addition, UNO has developed specific presentations tailored towards different audiences. For instance, the application embeds legislative districts in reports. The ability to ask questions at the legislative district level is a question most often asked of university leadership and is critical to win support from state and local government officials.

Data-Informed Strategic Direction

Once the metrics are institutionalized, the dataset is developed and the basic data representations are visible, with the strategic importance of such frameworks becoming visible (macro-level utility). The analytical structure allows UNO to address strategic questions, including the ability to identify strategic alliances, discuss equity in resources and issues addressed, and provide an innovative framework for measuring impact.

With the CEPI framework, questions that were previously difficult to conceptualize, let alone answer, became attainable, including the ability to analyze social networks and partnership intensity. The issue of partnership intensity has been a point of discussion in the Engagement Measurement Committee, faculty input, and community focus groups. All stakeholders recognize the need to differentiate between low touch vs. high touch and/or sustainable partnerships. For example, if an institution engages with Partner X during a one-day volunteer event, that is a different relationship, with different outcomes and impacts, than the relationship with Partner Y that includes multiple projects, over a longer timeframe, engaging a larger number of different campus units, addressing a multitude of societal issues, and through multiple different types of engagement. Analyzing and weighing the importance of these variables is essential to advance from basic metrics to leading indicators of success.

Strategic questions include the ability to recognize that there are certain societal focuses that the university is more engaged in than others focus areas. This information does not necessarily warrant action or correction; it could be that a particular focus area is of strategic interest to the institution. However, without the data representation and transparency, there cannot be an informed decision. Other macro-level questions include gaps in community partners (who is the institution not engaging), equity, and saturation of engagement.

Sustainability

One of the greatest challenges facing engagement-tracking systems is sustainability. While there will be individuals on campus willing to enter data, many will refuse or lose interest in the technology. It is essential that a plan is created to ensure sustainability. Application Program

Interfaces (APIs) provide unique opportunities to increase sustainability by connecting the framework with existing systems that may already capture engagement data.

Mol (2016) warns about survey fatigue amongst university students, a phenomenon reflected in the self-assessment interviews and faculty focus groups. This reinforces the importance of leveraging existing data sources and demonstrating their use prior to requesting new data input. To address this concern, UNO created an engagement data inventory that identified engagement data points, definitions, sources, timeframes, and limitations.

Higher education institutions often require faculty members to enter data into faculty activity technology. While faculty activity software contains important engagement data, it is often underutilized, leading to frustration with faculty members. Holton, Early, and Shaw (2015) reinforce the importance of leveraging faculty activity data. The next step for the Engagement Measurement Committee is to develop data APIs that will allow for integration with campus systems, starting with UNO's faculty activity software. Not only will such an integration lead to valuable data and increased sustainability, it is also responsive to faculty focus group feedback, which could facilitate buy-in.

It is important to recognize that integrating two disparate systems via APIs takes work and can be challenging, especially since it requires some technical expertise, but more importantly, it needs buy-in from different levels within an organization. From a technical perspective, integrating different institutional processes and technology systems that have different data frameworks might seem problematic at first glance, but APIs have been created precisely to solve this problem and allow multiple systems using different technology stacks and frameworks to work in concert. The latter is more difficult, because it requires organizations to overcome existing culture and behavior challenges, which often have silo mentality; overcoming these requires buy-in at the highest levels within an organization.

The architecture of disparate software systems becomes a tangled web of inefficient processes and standalone applications with siloed data points (Think Automation, 2020). Within higher education, there is near universal recognition that insights connected to the toughest challenges are buried in data housed in multiple siloed systems. Overcoming this challenge requires a fundamental change in the way an institution thinks about, manages, shares, and applies data to achieve its strategic goals. It takes a sustained investment, strong leadership, and campus-wide buy-in. The key for universities to building something sustainable is to work on "Thinking of Data as an Institutional Asset, Not a Departmental One" (Ellucian, 2020). Early discussions with the institutions' information technology departments are advisable to ensure that all stakeholders can place system integration on their respective development roadmaps.

APIs are driving a new wave of innovation centered on sharing services. Industries want to learn more about APIs and their potential to transform business processes. In general, APIs offer institutions the opportunity to scale and foster innovation while reaching a wider audience (Glowtouch, 2016; Readwrite, 2008; Chomko, 2010; Iyer & Subramaniam, 2015; Little, 2015). Furthermore, much of the higher education information technology already incorporates APIs. APIs are worth the investment if institutions are truly concerned about the sustainability of their framework. Institutions should not be asking individuals to enter engagement data in one system and re-enter similar information in another system, as this is a recipe for disengagement.

Strategic Plan Integration

Strategic plans of metropolitan institutions often emphasize community engagement which is a sign of commitment. When designing a framework for tracking community engagement, alignment with the strategic plan and planning process is advisable. The Engagement Measurement Committee conceptualizes this in the following ways: 1) by institutionalizing metrics and targets, and 2) by elevating the relevance of the engagement work through alignments with strategic priorities.

Depending on the institution, there may or may not be metrics, targets, and benchmarks tied to the community engagement objectives and strategies. Most institutions do an abysmal job of monitoring whether they are progressing toward their goals, and many struggle to know if they are on track for a given year.

At UNO, leadership implemented technology that ties metrics to all strategic planning initiatives. In effect, the technology (UNePlan) allows units to align initiatives with the strategic plan and operationalize audacious goals by creating (multi-year) roadmaps with metrics/targets. The desire to institutionalize metrics makes data-driven frameworks (for example CEPI) more relevant, as they provide a mechanism to monitor progress, thus increasing accountability.

Another way of aligning the framework to the strategic plan is by integrating it with campus priorities (Holton, Early, & Shaw, 2015). As indicated by Furco (2002), an alignment of engagement to campus priorities demonstrates 'sustained institutionalization.' While sustainable commitment to engagement is reflected in mission statements and strategic plans, the role of community engagement should advance as a method for achieving institutional priorities.

For example, through the strategic planning process, UNO identifies topics to bolster its strategic goals. In 2019, the entire campus rallied behind the Completion Imperative with the goal of implementing a multitude of initiatives to support students' pathway towards graduation. In 2020, UNO announced six interdisciplinary Big Ideas of strategic importance to the campus.

Incorporating these strategic priorities within the framework adds another level of relevance to the Community Engagement Partnership Initiative as it allows UNO to track its partnership data based on the new priorities.

Critical Reflection

UNO is not unique in its approach to track and assess partnerships. Critical questions may arise regarding the process of creating the technology and its effectiveness. For instance, one might wonder if the creation of such platforms is a good use of university resources. One way of reflecting on this question is by recognizing that universities are at the forefront of technology innovation and have been incubators of many products used in everyday life (e.g. the internet, Google). One of the goals of academia is to provide opportunities to explore creating new products, technologies, and platforms that benefit the community at large. Furthermore, as reflected in the best practices, the pathway utilized was in fact efficient, cost-effective, and meets a significant institutional need.

Others may wonder why institutions would build their own platform instead of using a commercial product. For UNO, it was important that the creation reflected the best practices described in this article. This includes responsiveness to campus and partner input, data model sustainability and flexibility, and adaptability to support dynamically changing priorities. Furthermore, the creation of CEPI was grounded in service-learning. One of the considerations with Commercial Off-the-Shelf (COTS) products is that they are in either early stages of development or do not meet all the nuanced needs of specific universities and communities. Each university has different and specific engagement goals, understandings, and frameworks; building a platform that can meet such a level of customization is a challenge. However, the authors recognize that the creation of a standalone platform can be a significant undertaking and advise institutions to reflect on the efforts done by others, including marketplace products.

The most important questions relate to whether the creation of the partnership framework results in behavior changes, either related to data entry or informed decision-making. Taking a conservative approach, the answers are unknown at this point, although there are certainly positive indications. From a data entry perspective, community engagement units have entered data resulting in over 400 active partnerships and 1,000 engaged projects. Furthermore, other units on campus have expressed interest in entering the data. However, in the absence a full campus-wide rollout and API implementation, the database reflects a limited dataset.

From an information consumption perspective, the data has been used in a variety of situations to respond to basic partnership questions (list of partners, number of partners, specific projects by

partners, etc.). More recently, UNO started efforts to expand local/regional international experiences. CEPI was used to gain a better understanding of existing efforts, including:

- What projects (local and beyond) connect to international topics?
- Who are UNO's international partners?
- Who are UNO's local and regional community partners that have collaborated on topics related to international engagement?
- Who are the key campus stakeholders interested in topics related to international engagement?

The example referenced earlier in this article of community partners reviewing CEPI in board meetings, recognizing duplication of efforts, and changing strategy to collaborate with different partners is an example of strategic, data-driven decision-making. While there are certainly indications that the framework is leading to a desire for data entry, information consumption, and data-driven decisions, in recognition of challenges ahead, it is premature to declare success.

Conclusion, Strategic Vision, and Next Steps

Implementing a framework for understanding community partnerships provides institutions the ability to move beyond basic metrics into leading indicators of success, while simultaneously visualizing the scope of community engagement. The vision for the Community Engagement Partnership Initiative, however, goes beyond basic partnership and project metrics. While tracking partnership/project data is essential, CEPI is only a starting point in UNO's ability to measure societal impact. Partner interviews and focus groups will be important to assess the roles, process, decision-making, perceptions, and partnership outcomes (Driscoll et al., 1996; Gelmon et al., 2001).

The Engagement Measurement Committee has identified a research agenda that would leverage the existing CEPI dataset. The goal is to connect qualitative research methods to the existing CEPI dataset leading to quantifiable outcomes by dataset dimensions, including geographical location, legislative district, focus area, types of engagement, and others. Community partners have expressed interest in participating in interviews and/or focus groups to facilitate this process.

Higher education institutions should move towards the systematic and strategic tracking and visualization of their community engagement. The incentive to do this might differ by institution, although it will often be a combination of several factors, including: 1) the urge to demonstrate the value proposition of higher education, or respond to allegations or the lack thereof; 2) the curiosity to understand the impact is of the institution's community engagement efforts, for example on a particular societal issue, location and/or district, or partner; and 3) the desire to be

strategic about community engagement through informed decision-making for example related to gaps, avoidance of duplication, saturation, and alliances.

At the 2019 Philadelphia Coalition of Urban and Metropolitan Universities (CUMU), three institutions presented homegrown systems that allow for community engagement tracking and reporting. The three institutions, the University of Nebraska at Omaha, the University of Pittsburgh, and Georgetown University, recognized the need and the existing gaps in institutions' ability to systematically track and visualize community engagement. The support expressed by the audiences indicates that other institutions struggle with similar questions.

The authors recognize that the approach and solutions outlined in this article is one among many. Every institution has its own processes and systems, which have several unique facets, and no one solution can address all of these. The challenge faced today is the lack of an agreed upon common framework and ontology as it relates to data for community engagement and service-learning. The authors encourage institutions to explore other approaches and solutions, including available options in the marketspace or potentially creating a homegrown solution that fits the institution's needs. An institution's data journey should be one that engages a variety of stakeholders at various stages and recognizes that priorities may shift; systems, therefore, must be flexible and easily adaptable.

UNO's roadmap to the CEPI framework was not without challenges. Many of the best practices described were in response to those challenges. CEPI started as a signature initiative of the Engagement Measurement Committee and developed into a formalized framework based on campus input, buy-in, and desired new features. CEPI's progression from a prototype to a formalized framework took deliberate effort and time, and scaling it up further can only be sustained with institutional investments.

While UNO, the University of Pittsburgh, and Georgetown University have moved towards a formalized framework of tracking and visualizing community engagement, institutions should start their own journey. Though formal structures are advantageous, they are not a prerequisite to engagement tracking. UNO built multiple prototypes and relied on informal data collection mechanisms, including Excel spreadsheets and ad-hoc data requests, before creating this structure. Informal mechanisms are an appropriate starting point and require few investments.

Whether formal or informal, institutions should recognize that tracking partnership data is an essential step towards measuring community impact. Higher education institutions are hubs for innovation, collaborations, and positive societal impacts. It is, indeed, part of our social contract and our collective ability to demonstrate these outcomes is in our strategic interest.

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