Using Web 2.0 for Tracking and Assessing the Impacts of Civic Engagement Activities

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Abstract

The interactive Internet, or Web 2.0, has created opportunities for civic engagement research and information management. This article presents a case describing one university's experience of such research. This article also provides a literature review on the evaluation of civic engagement and a description of the approach used at Widener University. Lastly, the article examines topics related to the use of the interactive web for this process to assist others in structuring their own systems of assessment.

The emergence of two powerful trends in the early twenty-first century—the expansion of the flow of interactive information via the Internet and the increasingly normative opportunities for civic engagement—have created bold new possibilities for a participatory world. Indeed, the potential democratizing and empowering benefits of these two trends, especially when acting synergistically, appear to be a true socio-technological bright spot in a world of increasing environmental and social threat. Yet even here, the benefits are uncertain. The Internet is increasingly often the subject of attempts to control its content (Palfrey 2010), with issues of censorship unknown to earlier generations (Lewis 2009). Furthermore, civic engagement is only viable to the degree that it is supported; thus, the benefits of these trends may evolve only to the degree that the two trends continue to grow and remain reasonably free of cooptation or manipulation.

The scope and movement of these trends is impressive. As recently as 1997, only 36.6 percent of American households had a computer and only 18 percent had the Internet; whereas by 2009, almost 69 percent of households had Internet access (United States Bureau of the Census 2010) and computers were ubiquitous. The use of mobile telecommunications is a truly omnipresent experience, with surveys showing 47 percent of Americans reporting wi-fi connections via laptop computers in 2009 and cell phone ownership rates of 80 percent for whites and 87 percent for African American adults (Smith 2010).

At the same time, the growth of civic engagement (CE) opportunities and participation has been equally dramatic. As a general observation, 62.8 million Americans (26.8 percent) reported volunteering in 2009–2010 (United States Bureau of Labor Statistics 2011) and about 64 percent of the voting age public reported voting in 2008 (File and Crissy 2010). Civic engagement is much more than volunteering and voting; it is a

multidimensional construct that suggests a variety of mechanisms for participating in and affecting the society in which a person lives, or indeed, the larger world. Colleges and universities are increasingly committed to the phenomena. For example, in academic environments in 2005–2006, an excess of 17,000 classes offered a service-learning experience (Campus Compact 2007).

From the standpoint of researchers, institutions, and the public at large, it seems clear that these trends are not only here to stay, but also that they may allow for a significant synergistic benefit in a number of domains. Indeed, the interactive structure of what has been called "Web 2.0," or the participatory and interactive opportunities of the evolving Internet, has potential applications in many aspects of socio-cultural life. At a minimum, research, information sharing, social networking, diagnostic and applied interventions, recruitment, and even political decision-making (or control) are all likely applications.

In the domain of university and community-based CE efforts, the application of Web 2.0 has already found a niche. For example, more than 3,000 organizations use Sweat Monkey as a tool to track opportunities and certain measures of participation among their volunteers and members (Sweat Monkey n.d.). The for-profit business community has recognized such possibilities, with a number of organizations developing software programs for various research interactive activities.

This article presents a case study that describes and examines one university's experience in which the two trends are working synergistically to very positive initial results. Specifically, this is in the application of the interactive Internet to process data collection for Widener University's system of CE assessment and impact measurement. The university in question is in Chester, PA, and is a metropolitan university with an expansive and ubiquitous program of CE activities. Recognized by *Newsweek* and *Washington Monthly* and in the President's Higher Education Community Service Honor Role for its civic mindedness and activities (Widener University 2011), the school offers CE possibilities in essentially every department and across the curriculum. Just a brief illustration includes community-based nursing, physical therapy, social work, psychological assessment and treatment, and legal services programs. Along with these are programs to assist the educational and economic development, and crime problems of the region (Ledoux, Wilhite, and Silver 2011).

Yet having such an expansive program creates a number of questions, all of which are associated with the need for a tracking and assessment system. These questions can be summarized by a single (albeit complex) question: "who is doing what, where, in what amounts, and to what effect?" The answers to this question have impacts, both large and small. At a minimum, the answers provide necessary planning information for future implementation. Beyond this, the answers—to the degree they come from a well-structured assessment—may help public relations and enhanced participation in the efforts. Likewise, external funders, community leaders, and even program development constituencies all benefit from comprehensive tracking and analysis.

To help understand how these benefits may be achieved, this article provides a short literature review on the evaluation of CE activities and a description of the approach at Widener University. Following these sections, the article examines topics related to the use of the interactive web for this process, with the goal of assisting others in structuring their own systems of assessment and tracking via the approach offered by Web 2.0.

Civic Engagement Assessment Literature

Understanding the assessment of civic engagement (CE) begins with understanding the phenomena itself. Although connected to historical perspectives on the actualization of democracy and civic responsibility (Erlich 2000), university connections to enhancing civic engagement can be traced in this country at least to the establishment of the Land Grant Colleges through the Morrill Act of 1862 (Jischke 2004). Recently, promoting CE efforts at colleges and universities have found justifications including social caring (Jacoby and Associates 2009), government limitations to solve intractable social problems, governmental policy (Kittredge 2009), funding support, the identification of universities as the locus of valuable knowledge and skill sets, and demands for colleges to positively affect their communities (Ratner and Brumitt 2006). Providing CE opportunities is well on its way to becoming a normative component of the collegiate experience.

Nevertheless, such broad normalization does not imply complete acceptance, conceptual agreement, or unambiguous empirical support. CE efforts cost money, require time, and may confront different values depending upon what the CE effort seeks to affect. One manifestation of these issues coalesces around the question of the CE's impact on its constituents—universities, students, faculty, and the communities served by CE efforts. While these questions can be asked in a variety of ways, perhaps the root of all is bi-dimensional. First, what are the systemic consequences, both as benefits and costs that accrue for communities served by a university's civic engagement efforts? Second, are these impacts sufficient to warrant the huge public and private investment supporting the activities?

Researchers for some time have recognized the importance of answering these questions and often have linked the need for effective evaluation as critical to the success of the CE movement (Gelmon 2000, 2003; Holland 2001). As the general demand of funders for accountable results increases (Frodeman and Holbrook 2011, Rockefeller Foundation 2003), and as major systems of collegiate classification, such as Carnegie's (2010), increasingly expect evaluative research, the importance likewise increases.

How to do the research, however, is an open question. Several complex issues affect the research, and therefore, the types of research that may be undertaken vary greatly. Even the basic research shows a great variety in work to date. These approaches may be classified in different ways.

Literature on Civic Engagement Evaluation

One traditional way of classifying evaluation research organizes it into process, outcome, or impact evaluation. Process evaluation attempts to understand the implementation and/or elements of a project that enhance or limit the likelihood of a successful outcome. Such studies also may focus on particular project's characteristics, such as leadership, satisfaction, and/or quality.

There are a number of examples in the CE world. Usually the intent has been to describe the purposes of program improvement. This approach has been used to examine certain program characteristics, including how the program may best be structured to achieve desired outcomes like cultural relevance (Anderson 2006), or participation and support of internal constituencies, which have included administration, faculty, and students (Poulin, Kauffman, and Silver 2007; Campus Compact 2007), or more broadly, issues of implementation itself (Sellnow and Oster 1997, Hammond 2000). Other dimensions examined have included honesty in relationships (Bringle and Hatcher 2000), degree of partnership service (Leiderman et al. 2002), degree of perceived mutual benefit (Bernal, Sheliman, and Reid 2004), and trust and the quality of communication (Arbuckle and DeHoog 2004).

Overall, process research has yielded important results. Perhaps the most comprehensive benefit has come about through the creation of organizational assessment frameworks, such as the Furco Rubric (Green 2008). This rubric (actually an instrument) has provided a very helpful process for assessing organizational relationships across a number of dimensions—faculty, administration, and community partners, and the quality of partnership arrangements.

Another evaluative approach within this same classification system is the outcome evaluation. This research type examines whether the program has achieved the targets, or more directly the goals and objectives of the program. Formally, it attempts to measure the degree to which the objectives have been met. In this research form, the evaluations focus on specific, pre-determined or pre-selected targets.

Over the past few decades, a large number of outcome studies have been completed. The National Service-Learning Clearinghouse (2009), for example, has compiled an impressive inventory of such research. They generally attempt to examine the benefits or positive changes of CE efforts. The positive changes identified include enhanced student learning (Eby 2001), perceptions (Blanc 2008), changes in values and/or attitudes (Astin and Sax 1998, Dalton and Petrie 1997; Sanders, McFarland, and Bartolli 2003; Toews and Cerny 2005), or other similar outcomes have been examined (Astin and Sax 1998, Driscoll et al. 1996, Hammond 2009, Sellnow and Oster 1997).

The general methodological assumption underlying these outcome studies is the focus on causality, simplistically demonstrated as an **A–B–A** design (baseline–program–outcome). The assumption, if all the rules are followed correctly, is that change is a function of program effort. Certainty is difficult to establish, and trust and any one of

an indeterminate number of variables can intervene and limit that desirable state. Nevertheless, the approach has great value.

A third approach, impact evaluation research, examines the effects of programs beyond those more narrowly defined or selected by the program itself. This encompasses both the types of effects the program desires but does not directly quantify in the program objectives, as well as unexpected or unplanned consequences. As such, these types of studies may be very useful in the context of universities with large numbers of programs, or similarly from across a number institutions. The real strength and value of this approach is that it may be structured to capture cumulative or aggregate effects from large numbers of programs.

Unfortunately, these are the rarest studies in the CE domain, although the results are starting to accumulate. For example, impact studies have looked at the CE impacts on faculty workload (Hammond 2009) across universities, as well as cross-institutional issues such as faculty perceived effects on students learning and skills, faculty reward systems and faculty methods and needed supports.

Although more work is needed (Holland 2001, Anderson 2006), some studies have attempted to look at the CE effects on communities and generalized constituencies. Examples here, however, have looked at the effects on children and families (Chibucos and Lerner 1999; Wahlstrom and Riedel 2004) or the needs of multiple groups in a distressed school district (Thurlow et al. 2007). The effects on communities were the focus in several studies as well, with measures on CE impacts on a disturbed neighborhood (Musewicz et al. 2006) or community organizations in East St. Louis, Illinois. Similarly, the Bonner Foundation (2009) identified a number of Widener University's high visibility projects along three primary impact domains—community engagement, economic engagement, and educational engagement, showing at least the potential for major community impacts.

Literature on Civic Engagement and Computerization

In this body of literature, there exists only a few examples of the application of the Internet to assessment and tracking, even though an increasing number of studies examine the use of the Internet to citizen participation more generally (Bo 2008; Hampton 2010; Harlow-Rosentraub, Wilson, and Swindell 2011; Leung 2009; McNutt 2004, McShane 2011). One of the few examples is an article by Ferber, Foltz, and Pugliese (2006) which suggests that community networks can be a useful tool, but utilization is limited. Thus, the use of Web 2.0 for assessment and tracking is a new approach to an existing need.

Across all studies previously cited, however, is the overarching need to characterize existing projects, as well as, the number and type of constituents. In this context, the interactive web can play a critical role by enabling the greatest reach across problem domains and constituencies, as well as interactive communication that facilitates the best possible chance of identifying impacts, which might be missed by traditional methods. Widener University is attempting to address these issues by such means.

Impact Assessment at Widener

Widener University—a metropolitan university that has a CE and service learning approach fully integrated into its mission (Widener University 2011)—is located in an extremely economically and socially distressed community. Chester, PA, a city with a 2010 population of 33,972 (Unites States Bureau of the Census 2011) has long been identified as a seriously distressed city. Although Chester has had a history of vibrant social and economic culture, the economic changes of the last thirty years have been devastating. For example, the city has a high unemployment and poverty rate, a median household income that is only two-thirds of the state of Pennsylvania (City–Data, 2011), and a severally decaying housing market (American Fact Finder 2010). The city's educational system also is in trouble, and Chester's crime rates and health problems exceed the levels of most of America. To make matters worse, the city's health problems are compounded by the environmental conditions in Chester, a city that serves as the quintessential example of the consequences of environmental injustice.

Widener University's commitment to address the needs of Chester and surrounding areas in the region and beyond make it an ideal site for the development of a comprehensive CE impacts study. In terms of CE activities, the university has programs targeted at legal assistance, medical and nursing care, education for a variety of age groups, social services, engineering services, environmental education and remediation, criminal justice, and business and economic development. The university also has a service-learning support and training structure for faculty and a dedicated administrative unit—the Office of University Engagement—to help oversee many of the activities. Similarly, its connections to the national movement are impressive, with affiliations to projects like Project Pericles, Campus Compact, and the Coalition of Urban and Metropolitan Universities. While some of these programs have existed for several decades, many are relatively new.

What the university does not have, however, is a formal mechanism for identifying, tracking, and assessing these and other projects, which has had consequences. For example, the university administration has sought funding from several external foundations to expand its activities, and although in several cases the university has been quite successful, in other instances foundations have been tentative about funding within this realm. This is largely because the entire CE movement lacks a full body of research literature on the social benefits and impacts of the programs. Thus, while the problem of assessing impact exists nationally, it clearly exists at Widener University as well.

The project of tracking and assessment on which this article centers began in late 2008. The need for a comprehensive system of data collection was recognized across the campus, with special attention from the president and the provost. The project's goals and purposes were developed in consultation with several university constituencies and included:

Project Goals

- To assess the scope and impact of Widener University's civic engagement projects
- To develop and implement a system for tracking the CE projects of Widener University and its faculty members and students
- To disseminate the Tracking and Impact Assessment Model widely, through publications and other means, for the use by and benefit of the larger institutional community

Purposes of the Project

- To develop knowledge about civic engagement
- To identify effective practices, and to provide empirical justification for undertaking certain projects
- To identify and help publicize campus and community opportunities
- To provide information about what works for all constituencies (university administration, staff, students, funders, community partners, and others)
- To enhance the involvement of these constituencies in planning and implementation

Three major goals or components comprised the project. First, the model would need a systematic process to identify and track CE efforts. Second, a model of impact assessment would need to be developed and tested. Lastly, a process to involve and disseminate information to as many groups as possible would need to be created.

Of course, with such diverse purposes, multiple methods of data collection targeting multiple constituencies were likely outcomes. The heart of the project—the component absolutely necessary for any of the other elements to have value—was a system designed simply to identify and track what Widener was doing. As stated, the university's diverse programs and CE opportunities were only partially identified.

As such, primary attention initially focused on the development of a tracking system. In this context, following multiple meetings with various constituents, it was decided that the system would need to be comprehensive, user friendly, and adaptable to changes as CE program question arose about where to seat/locate the system. The three immediate possibilities were with a faculty researcher, in the office of university/community relations or in the department of institutional research.

The decision was made to locate the system with the faculty researcher who was developing the system, but then to move the system to institutional research (or even to a different unit) after the system was fully implemented. In part, this was simply a matter of resources and interest. The resource needs were initially small, but expertise

needs were great; therefore, the choice to leave it with the faculty made sense. Then later, after the system was operational and the resource maintenance needs greater, the location would probably change to institutional research.

The next issue was one of method. An online web-based approach was always at least a part of the process, but the initial structure for data collection used a paper survey instrument. This approach involved e-mailing a survey as an attachment to all faculty, administration, staff, and student leaders previously identified as leaders in one or more CE activities, and is ongoing as of July 1, 2008. Subsequently, the survey was e-mailed to all administrators, program directors, faculty, and student leaders on all three of Widener University's campuses.

Although data was intriguing from this first attempt, and the number and diversity of identified programs far exceeded everyone's predictions, the return rate was low. It was determined that the survey process itself was ineffective. The instrument's length and inflexibility bothered a number of subjects.

At this point, the interactive web approach was considered. The advisory committee began to determine alternatives. Among these were two proprietary systems, both of which were contacted about the use and cost of their systems. In addition, a free online system, quite widely used called Sweat Monkey was examined. Finally, an in-house modification of the existing survey was placed on an interactive online platform. This last approach included a modification using Google Docs, which served as the data collection platform, and Campus Cruiser (a commonly used academic intranet portal similar to Blackboard), which was used as the access portal for the campus community. Over the next several months, the four systems were tested by members of the advisory committee, with the charge of testing the systems by using their own CE projects as examples for data entry.

During this time, the committee met several times to discuss their findings. Critical issues were identified, many of which are discussed below. Among them, what appeared to be the most important for us were (1) a high degrees of complexity among the proprietary systems (including lack of clarity), (2) limited variables and/or types of information collected among the free systems, and (3) very limited data-reporting functions, with necessary intermediate steps between the programs and others used for advanced analysis.

With this in mind, the decision was made that the in-house system comprised of a free data collection tool located on the Internet, and therefore accessible to any computer, provided us with the best possibilities and would best meet our needs. This free tool was connected to Widener University's web site, which provides a platform for both the (primarily) quantitative data collection and the (primarily) qualitative narrative interaction. The quantitative component is discussed first.

Quantitative Measures

The instrument for the tracking research contains thirty-four questions, both open-ended and identified response. This instrument is the primary mechanism for measurement of the independent variable measures and generally includes the number, type, and location of CE activity, along with participant information (both identification and activity tracking) and service measures. Further questions include the names of community partners and organizations, project purposes, and impact domains. In list form, the variables include:

- Activity type
- Service learning
- Community research
- Outreach
- Experiential education
- Problem domain
- Activity location
- Structure of services
- Duration and starting/ending points of activities
- Types of university participants
- Numbers of university participants
- Project purposes and goals
- Funding sources
- Types of intra-organizational collaboration
- Organizational partners

Degree/Intensity of contact

- Expenditures
- Person hours
- Physical plant/space used

All CE projects at all campuses are included, yet using a system of prompts and skips, respondents only answer questions relevant to them. Furthermore, geography is irrelevant, as the university has a number of projects that operate in China and the Brazilian rain forest. Thus, to the degree that satellite connection exists, no limits exist.

Likewise, the platform enables non-university members (the community and external organizational partners) to participate. This enables impact measures to be included, although many of the impact measures—particularly those associated with specific program outcomes—have not yet been included in the collection process.

Qualitative Information

A further exciting component of the project to date is the web-based interactivity, or wiki possibilities engendered by the project. A wiki format is a forum that enables interactive presentation and information modification on the Internet. In the present case, the large number of participants and programs offer a variety of mechanisms for which this tool is useful. The mechanisms that were employed in support of the quantitative data collection included:

- Narrative course discussions: many of the service-learning classes include interactive, real-time discussions of experiences gained through the service-learning experience. Faculty encourages these discussions and several faculty members track the discussions for the purposes of course evaluation and/or experiences with the partner organization.

- E-portfolios: many instructors require the development and application of e-portfolios as tools to assess student performance. E-portfolios are student document and information repositories kept online ("e" represents electronically), but made accessible to faculty and others. The use of this tool for CE measurement has just begun, although it is likely that it will be an effective tool considering that e-portfolios also are used to assess and track various aspects of program characteristics for accreditation or similar purposes.

- Wiki narratives: using the electronic platform, students and community members are able to describe and share their experiences through open and expanded narratives of the organizations involved, participant groups, or other elements of the experience. As these are open to all, faculty, students, and community members are able to make better selections of desirable service possibilities.

Assessing the Assessment: Issues for Consideration

As with all data collection methodological choices, there are strengths and limitations to the web-based approach, as well as a number of issues that require consideration. The following narrative examines some of these from not only a conceptual standpoint, but also from the perspective of its implementation at Widener University for the tracking of CE efforts, which has tried to create as comprehensive of a system

as possible. Yet the system has uncovered both flaws and significant issues for consideration that must be addressed for both Widener and for other universities/institutions that are seeking to create a system for themselves. The next sections address the issues and provide some guidance for institutional choices.

Comprehensiveness Versus Ease of Use

First, the very level of completeness that Widener has selected comes into a direct collision with ease of use. The wide variety of programs at Widener, along with the large number of different constituencies that may provide useful data and the various types of questions and information sought, may provide a serious conflict, or at least a problem of balance that must be addressed, in the process of determining the best system for the institution. Each element is discussed in the following sections.

Number and Type of Programs

Exactly which programs should be included in the tracking system is problematic. By almost any standard, CE is an elastic concept and overlaps with a number of other concepts including citizen participation, volunteerism, philanthropy, and even democracy itself. The term has been linked with such phenomena as citizenship, democratic participation, community building, social capital, and public work (Jacoby 2009). Furthermore, just a sampling of the types of activities that may qualify as curricular engagement, outreach, and partnerships in the commonly used Carnegie Classification system includes service-learning, research, internships and cooperatives, action research studies, conference presentations, pedagogy workshops, publications, as well as community-targeted cultural, athletic, library, and technological services (Carnegie Foundation 2010).

Perhaps the best overall definition of CE is that of Erlich (2000), "civic engagement means working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes" (vi).

Yet as suggested from the previous statements, CE is potentially quite broad in its manifestations, with service-learning, experiential education, internships, community-based research, and community service (Leiderman et al. 2002) included. So where does the institution draw the line? What programs and activities are necessary, which programs are possible, and which programs should be excluded? The answer to these questions, as with most of the research issues presented later, remains with the implementing institution itself. There are no universal solutions.

Number and Type of Constituents

Following the problem of what programs to target and include, is the problem of which constituent groups to consider. These groups potentially include both intra- and extra-mural individuals, families, groups, community (ies), and/or organizations. Even a small program is likely to involve several of these groups, and the larger the

institution or the greater the number of programs, the larger this number may be with many students, faculty, administration, and a broad spectrum of others from the non-university community.

Who may be included? In general, data may be appropriate from those who offer or co-offer the service or program, the provider groups, and both internal (administration, faculty, staff, and students) and external (community organizational partners). Then there are the service recipients, who are the targets of the CE effort. These may include program-specific, direct impact groups—university-based beneficiaries, including administration, faculty, staff, students, and any number of extra-mural program beneficiaries. Next, there are community components, indirect impact groups, who are at least affected indirectly by the service and may include residents, organizations, and local government. Finally, there are ancillary groups (funders, non-local government) who care about the program in different ways and degrees (Kauffman 2009, 2011). Each group may provide different kinds of information about different aspects of the institution's efforts.

Type of Data Collected

The data types that may be collected are virtually limitless and therein lays a major problem. What data are essential, what data are desirable, and what data can be left out? One approach toward answering this question is by understanding what kind of information exists. For example, data can be typified into several categories. These categories include program description, participation and program outputs, and program effects (outcomes and impacts).

Briefly, program description includes data about goals, intentions, service domains, and problems to be addressed. For example, variables like the Carnegie classification, the desired program outcomes, the university unit, and/or the community partner providing the service might all be useful. On the other hand, participation and program outputs address the amounts of services provided and the numbers of participants involved; this includes both the constituents who offer the service and the constituents served by the programs. Finally, program effects address the large number of variables measuring the activity's consequences. These may include a degree of change in problem status, community or systems level impacts, and perceptions about these variables.

Differential Access and Control

Of course, as previously discussed, one of the purposes for and strengths of the web approach to data collection is the ease of accessing data collection tools across geo-spatial domains. This very issue of access raises issues of its own, including questions of who provides what data under which conditions. In addition, this raises its own serious issue, that of data reliability. In this framework, the issues to be examined can be defined as levels of access and control.

Levels of Access

Thinking about the variables presented in the section immediately preceding this one, it is clear that not all users necessarily need access to all elements of data collection. For example, the students in a service-learning course do not need to access information about a university neighborhood development project or the initial data collection matrix set up for the service-learning class. In addition, the university development project requires information about the program (the program's description) that once entered, need not be entered again. In these cases, the course and project goals and service descriptions are consistent over time, and unless there are changes, no additional data entry is needed for these variables.

On the other hand, some information needs to be collected on an ongoing basis, albeit by different persons and at different times. Again, consider variables from previous sections, such as participation and program outputs that need to be entered often, perhaps several times a day from several different persons. With such variable access, unless appropriate pathways are established the data collection process may quickly become overwhelming and unwieldy due to the length of the documentation.

Control

Similarly, even though one of the core principles of the web approach is the desire to broaden the data collection process as wide as possible, some degree of control is necessary on several counts. First, the concern about data needs is not spread equally across the institution. Persons who provide a service, volunteer, or contribute money may not have the same interest in tracking and reporting information as does the administration or faculty who research the phenomena. Secondly, knowing what kinds of information are needed or is important may be a rather specialized knowledge set or at least of variable interest.

Finally, wiki approaches are inevitably affected by different levels of knowledge, honesty, and quality. For example, it is unfortunate, but true, that cheating has become far too common and acceptable among some groups of students in the world today. In the Widener case, it is a constant point of discussion as to the veracity of information provided in both the quantitative and qualitative domains. In part, this problem has been corrected by the use of participant identification (e-mail addresses) or faculty time to verify response. This is not always possible, though, and perhaps not even always desirable. Yet it is sometimes necessary.

Furthermore, all knowledge has value, and although this value is indeterminate, the question of who owns, structures, and/or is able to access the data is an extremely important and delicate question. For example, a researcher may choose to use the information for developing knowledge and may hope to keep access as broad as possible; others may see the data as a commodity that can be used for the purposes of trade or barter. Consider, as a simple example, how both for-profit and nonprofit organizations often trade or sell membership sets. Various components of this may likewise have such value.

Thus, the question of critical importance becomes who should have what level of control over which parts of the system. Of course, this comes close to the heart of Web 2.0 issues and indeed the relationship of Web 2.0 to civic engagement—the problem of democratization, interactivity, information empowerment, and the need for confidentiality and control. By design and intent, Web 2.0 processes encourage access and openness. Some have even gone so far (somewhat tongue in cheek) as to suggest that Web 2.0 can save democracy (Granick 2006). Perhaps, but the processes that are available within this domain offer new and exciting ways of presenting and sharing information that avoid many of the past difficulties. Money, power, and access have always affected information, but this new modality removes many of these impediments, as long as a person has a computer and web access.

Systems Purpose

The final question, although perhaps the question that should be addressed first, is what is the purpose of the system, or rather why bother. Although this appears to be a simple question, it is in fact quite complex and may embody a number of issues. Among these issues, are questions of what the project seeks to find out and who benefits? How these questions are answered affect the ultimate utility, costs and benefits, and perhaps even the integrity of the project.

In previous work (Kauffman 2009, 2011), three conceptual dimensions where identified as affecting purpose, to which a fourth is added here. The three previous dimensions were as follows. First is traditional research classification or the typology of a project based on what the research seeks to understand. These categories include exploration, description, or explanation (Grinnell and Unrau 2008). The second of the previously identified dimensions were evaluative intent, or classification of the evaluative purpose as the examination of process, the examination of outcome, and the determination of impact. Finally, the third of these dimensions was audience, or the structuring of purpose based upon the needs of the informational consumer.

Despite the overt intent of researchers, as well as beliefs about the ideological assumptions of positivistic science, knowledge has consequences. Not only do the findings of a study have consequences, even the ultimate audience of a study often determines the questions asked. In the case of the actions of large, expensive, and some would say ideologically driven institutions like colleges, the questions asked and the findings from those studies are the subject of close scrutiny.

Clearly affecting all of these possibilities are the reasons the university establishes a CE program at all. A range of often overlapping alternatives exists here, and as it is rarely the case that all CE efforts are coordinated within the university, these alternative causes are likely to expand and change over time. Nevertheless, some sense of why the university is involved in such an effort will go a long way toward clarifying the purpose of the evaluation itself.

One other element where audience and research purpose overlap is associated with a near ubiquitous aspect of many engagement activities, and one that can offer substantial benefits to the project through various manifestations, is participation and the potential sense of empowerment for projects' participants. Achieving a sense of empowerment is often best served with an early and ongoing integration of target constituencies into the research process. It is important for educational institutions to remember that the community residents are the experts concerning their needs (Kisker 2007). As such, before a program is started within a community, a needs assessment should be done to determine what the residents feel is needed. The demands of the community should remain the primary focus of any new program that is developed, but they also may serve as valuable informants as to the types of impacts that should be examined. Part of this is being clear and honest about the purpose of the effort. Bringle and Hatcher (2000) claim, "Institutional changes that support the scholarship of engagement include intentionally clarifying mission in a manner that produces increased congruence between mission and practice."

Just so there is no confusion, this applies to the impact assessment as well as to the development of the university's CE programs. Differences are often found between experts and the public over a variety of issues: for example, differences about which problems are most important (Ansley and Gaventa 1997; Darling et al. 2002; Morrow-Howell, Proctor, and Rozario 2001; Walters, Iliffe, and Tai 2000), how a problem should be defined (Culp et al. 2001; Weischeit and Wells 2002; Hudson and Carlson 1998), or which factors will affect successful program outcomes (Koons et al. 1997). Researching the effects and impacts of programs is no different.

Again, in the Widener case, the most comprehensive response to this dimension was the one selected. Widener University has a variety of constituencies, both inside and outside of the university that are interested in the university's activities. Developing a research approach that can provide answers to the range of constituent questions may serve the university and the community best over the long-term.

Recommendations

Based on our experience and the critical role of the issues previously identified, several recommendations can be made for the application of an interactive web-based system. The first of these involves communication and training. All desired participants, even those with high degrees of knowledge and skills, face both special and generalized problems in the use of a system. Even the most expert of experts will need some clarification about the processes of a system; moreover, the terms. Even systems that are, apparently, not complex, are complex, and some of these are of critical value. For example, the concept of CE means different things to different people. As previously discussed, many phenomena may be included within it, and as such some people may have a very specific (and potentially limited) view of the meaning. If, for example, you wish to include certain types of research within your definition, you will want to make sure that people understand that their research should be included; otherwise, they may not complete the data collection process.

Thus, training is a very useful process. Fortunately, the interactive web provides numerous approaches for providing such training (webcasts, webinars, etc.).

Secondly, you should develop and apply your system only at the speed at which the various constituent groups absorb it. This does not mean you cannot fully develop the system prior to application, but remember that computer literacy and comfort, while great, is not yet total. Some groups from which you might need information may lack connection to the system or may otherwise have adaptive limitations. Further, integrating one constituency at a time into the system, while potentially collecting some data, will enable you to work out the "bugs" and to identify the unique needs of these different groups.

Conclusion

In conclusion, the interactive web provides new and exciting alternatives to the process of data tracking. The process by which the tools employed at Widener University enables participants to enter, modify, and edit information, has greatly encouraged improved comprehensiveness of the data available to the University. At the same time, by the use of these tools (in particular the qualitative data sharing and wiki-based narratives), individuals who previously had no voice may now contribute to a range of topical considerations. While these considerations are currently limited by the degree of application, it is likely that the systems will expand to more and more of the campus community.

As previously stated, the real value of the approach is the empowerment that the system provides. This is a perfect fit for many CE efforts. If one of the goals of civic engagement is empowerment, any tool that enhances that goal attainment is a desirable tool. Universities and the communities in which they exist can reach new heights together, rather than as independent entities, which is a most worthwhile goal.

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