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STRATEGY FOR ACADEMIC-COMMUNITY COLLABORATION: ENABLED AND SUPPORTED BY THE DEVELOPMENT OF AN OPEN-SOURCE WEB SERVICE

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Abstract

To cope with the challenges of economic turbulence in many small communities in U.S. and other parts of the world, this paper aims to propose an academic-community collaboration strategy to improve education, enhance workforce development, foster social community development, and facilitate economic development in a community. Based on the Design Science framework, the proposed academic-community collaboration strategy is presented based on the Asset-Based Community Development (ABCD) approach and value-chain analysis, and supported by our proposed open-source IT infrastructure, including a showcase of web service called Community Development Collaboration Service (CDCS). This web service functions as a central portal that identifies available services and resources, disseminate areas of needs, and then match the resources and the needs appropriately and efficiently within a community, with the support and promotion from local universities that the community can trust. Our preliminary survey findings suggest that most of the potential users find the overall content quality and perceived usefulness of the CDCS good or excellent. Implications, limitations and future improvement of the CDCS are presented in the paper.

Keywords: Academic-Community Collaboration, Open-Source Web Service, Asset-Based Community Development

1   INTRODUCTION

In the last several years, many small communities in the U.S. have gone through some of the toughest economic hardship in the recent history (Florida, 2012), which is in part driven by many factors including globalization, downsizing, financial meltdown, government debts, trade deficit, bank tightening credit, and business stagnation. Many small communities are experiencing steep deterioration marked by crumbling infrastructure, poverty, economic inequality, and racial tension. All of these problems are intensified with the severe cutback from the government at all levels. The consequence is the reduction of resources and the elimination of needed social services that make it almost impossible to revitalize broken communities. This is indeed a challenging time for many small communities to survive and much less to grow and thrive when we are often forced to do more with less. We have to find innovative ways to cope with the challenges.

In order to survive and eventually thrive, members of the small community must come together with a shared vision. They have to believe in a vision for building a better and stronger community. They have to work together toward such a shared vision. To make this happen, it requires a lot of collaborations among various stakeholders. To build and sustain such collaborations, there has to be a clear strategy to guide the effort and an infrastructure upon which information and knowledge could be collected, disseminated, and shared effectively. This motivates us to write this paper with two purposes in mind. The first is to discuss a practical strategy for academic-community collaboration with clearly identified steps to carry out. The second is to present our concept of an information technology infrastructure to support the proposed strategy according to the Design Science framework (Hevner et al., 2004). Based on this overall infrastructure, we have successfully designed and developed a web service called Community Development Collaboration Service (CDCS) that we will showcase later in this paper.

The paper is organized as follow. After the introduction is our proposed strategy for academic-community collaboration based on two distinct frameworks: the Asset-Based Community Development (ABCD) approach and the value-chain analysis. The following section provides an overview of an information technology infrastructure for the support of the proposed academic-community collaboration strategy. It is then followed with the showcase of CDCS that we designed, developed, and currently use. The next section discusses the feedback from potential users of CDCS. The paper is finally concluded with the practical implications, potential contributions, and future direction.

2   BACKGROUND

2.1   Academic-Community Collaboration

Collaborations between academic researchers and community groups are not new. A wide range of research projects has been carried out based on such collaborations. For instance, the article by Stahl and Shdaimah published in 2008 reported a study on home repair problems of low-income homeowners through collaboration with a community group. An article by Tajik and Minkler published in 2007 relied on academic-community collaboration to study environmental injustices on the poor U.S.'s rural South under the expansion of the industrial livestock operations. A study on the topic of teen pregnancy prevention by Pearlman and Bilodeau published in 1999 is another case in point. As observed, academic-community collaborations are becoming popular as evidenced in number of publications in academic journals (e.g. Lennett and Colton, 1999; Viswanathan et al., 2004; Hillier and Koppisch, 2005; Peterson et al., 2006).

Our proposed strategy for community development and an actual system development to support it fits well in the realm of academic-community collaboration. It can be considered as an example of not only doing service to the community but also learning and applying the knowledge, expertise, and

resources from classroom to help resolve issues, fill the gaps, meet the needs, or simply improve the community. We believe a collaborative project like this is an effective way to learn a subject matter in the course and at the same time to develop awareness of the resources and needs within a community. The community groups offer a real world setting and are intimately familiar with their context and issues. The academic researchers lend expertise, knowledge, and legitimacy to solving issues and problems faced by the community groups. Most community organizations, particularly non-profit agencies, often lack the resources and expertise. They might not have the time and knowledge to access needed information and use available technology. Through collaborative projects, academic researchers can align their resources and expertise with the needs of society and offer the local community groups the invaluable practical and intellectual services. Thus, academic-community collaboration is a win-win situation for everyone.

Despite the growing literature related to academic-community collaboration, there is no clear strategy in place that could guide this process especially in the area of community development. How should one approach a collaborative project? Is there a step-by-step strategy that guides the development and implementation of academic-community collaboration? In the next section, we will discuss our proposed strategy. It can be used as a practical framework for launching and sustaining a collaborative project for community development.

2.2   Proposed Strategy for Academic-Community Collaboration

Our proposed strategy for academic-community collaboration is based on two conceptual frameworks: The Asset-Based Community Development (ABCD) (Kretzmann and McKnight, 1997) and the value-chain analysis (Porter and Millar, 1985). The first conceptual framework is the ABCD approach, which is first introduced by Kretzmann and McKnight. This approach focuses mainly on assets and capacities within a community rather needs and dependency as a way to launch and lead successful community development. Although there is no "blueprint" for carrying out an ABCD approach, the approach is guided by two key principles: (1) Appreciating and mobilizing individual and community talents, skills and assets (rather than focusing on problems and needs) and (2) Community-driven development rather than development driven by external agencies.

Guided by these principles, one has to decide which combination of tools and methods are appropriate for helping communities to organize themselves to identify, link, and mobilize their assets. The appeal of ABCD approach is drawn from its foundation that communities can drive the development process themselves by identifying and mobilizing existing assets, thereby responding to and creating local economic opportunity (Mathie and Cunningham, 2003). According to the ABCD approach, every single person has capacities, abilities, and gifts. Living a good life depends on whether those capabilities can be used. Each time an individual use his or her capacity, the community is stronger. This is why it is important to identify what and where the capacities of local residents are.

The second framework that we incorporated into our proposed strategy is the idea of value chain analysis (Porter and Millar, 1985). Value chain analysis allows us to achieve the followings: (1) to clearly identify and distinguish core activities from support activities in the ABCD approach, (2) to identify the value associated with each of the key activities, (3) to determine areas where information technology could be used to enhance or add values. Figure 1 illustrates the core and support activities in the ABCD approach as viewed from the perspective of value chain analysis.
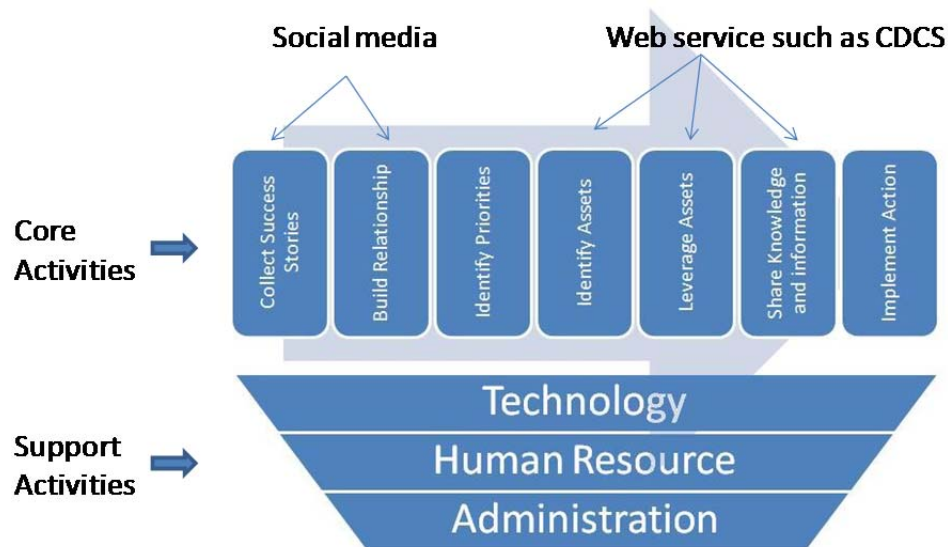
Figure 1.   *The academic-community collaboration strategy based on the framework of the ABCD approach and the value chain analysis*

2.3   Description of Core and Support Activities of the Proposed Academic-Community Collaboration Strategy

According to the value chain analysis based on the current technology trends, the core activities consist of key steps, including some related to social media and web services, that are necessary to carry out the ABCD approach and achieve its desired goals, whereas the support activities are those existed mainly to enable the core activities to take place. Drawn from the work of Kretzmann and McKnight, 1997; Mathie and Cunningham, 2003; and Lindau, et. al. 2011, the following core activities in the ABCD approach are identified as follow:

- Collect stories about community successes. This step helps lay the foundation for the initiative with the focus on the positive perspective that reflects the strength, capacity, and potential resources within the community.
- Engage in relationship building. This step makes use of the previously identified success stories as a way to build relationship among groups in the community. A core group should be formed to carry out the work. Some of the important works involve contacting and initiating potential partnerships.
- Identify the community priorities. In parallel with engaging community in relationship building, this step is needed to search and identify what the community believes to be their priorities. Based on these priorities, a future vision for the community could be articulated. This should solicit input from broadly representative group.
- Identify the community assets. This step is at the heart of the ABCD strategy. The focus is to identify different types of assets that exist in the community and to map the assets of individuals, associations, and local institutions that could be assessed as capacities within the community and turned these capacities into opportunities for community development effort.
- Leverage assets. This step involves actual effort in bringing together the resources/capacities available from different groups to work on more difficult issues and to make bigger impacts on the community than relying on resources/capacities of a single individual or group. In these steps, partnerships for mutually beneficial problem-solving within the community could be formed so that actions could be matched with opportunities.
- Share knowledge and information. In the previous steps, the effort has been collecting useful information such as collecting stories, gathering information on assets, etc. In this step, the focus is to organize the information and share it with appropriate organizations/users. This provides a

crucial link to enable partnerships to be successful. For instance, technology use data could be shared with a local municipal government in charge of technology innovation and investment, or asset maps of retail food outlets could be shared with a company interested in improving nutrition. Information and knowledge sharing could help mobilize the assets for economic and community development.

- Informed action. The final step is to take actions based on the knowledge gained through the ABCD strategy. For instance, investment decision could be made based on the community priorities and assets. Certain infrastructure could be built to accommodate community development and meet the changing needs.

Among the support activities that are needed to carry out steps in the ABCD strategy are identified below:

- Technology development activities consists of selecting appropriate support software and hardware, building necessary infrastructure, identifying and using available technology to support the core activities, designing and developing capabilities to meet the needs and changing requirements, and training people to use systems.
- Human resource activities involve managing various parties involved in the project such as volunteers, experts, managers, leaders, local universities, and churches. Other major human resource activities include recruiting and retaining volunteers, making schedules, providing incentives and rewards, etc.
- Administrative activities involve day-to-day operation. These activities would focus on the financing, operating, and marketing aspects as well as the decision-making process.

3 PROPOSED INFORMATION TECHNOLOGY INFRASTRUCTURE TO SUPPORT THE ACADEMIC-COMMUNITY COLLABORATION STRATEGY

During the economic hard time, many crisis victims are searching for information to help them in their daily activities. It is necessary to have a central place to provide information not only to needy people who look for help but also to local organizations who try to reach out to help those in need. The key is the ability to make information accessible and easy to use so that resources could be indentified and matched to meet the needs within a community in a timely manner. This realization is the key driver for the conceptualization of an overall IT infrastructure that is needed for the support of the academic-community collaboration strategy. One of the distinctive and attractive aspects of the proposed IT infrastructure is that it is based solely on the open-source platform.

Open-source software refers to computer software that is developed and distributed under the open-source license. Such a license allows free access to the source code and imposes no license fee. Anyone can study, change, and improve the software for distribution. In recent years, open-source software has been increasingly recognized and eagerly embraced by businesses and organizations interested in an alternative to proprietary software. Its wide adoption has been in part fueled by the availability of successful and popular software such as Linux, Ubuntu, the Firefox web browser, OpenOffice suite, MySQL, PostgreSQL, etc, and most importantly, the web server software Apache (Conlon and Hulick, 2006; Conlon 2007). Recently, a report from ComputerWorld shows that a growing number of companies are embracing open-source software because of its quality -- not just cost savings. Open-source software shows sign of maturity (Collett, 2010).

The long-term goal in this project is to develop an information portal infrastructure that is based on open-source platform. This infrastructure would be made available and accessible to a large number of individuals, institutions, and communities who are interested in community development activities. Since community-driven development requires extensive collaboration and communication, it often involves many different stakeholders. Today's technology if appropriately developed and integrated could be the key catalyst in bringing various community stakeholders together in a collaborative and

productive environment where information is easily accessible; plans could be made collectively; needs could be met effectively; resources could be shared; and volunteers could participate and make contribution. The ultimate benefit is a stronger community made up of civically responsible citizens for the betterment of the society as a whole. Figure 2 is the overall information technology infrastructure for the support of the academic-community collaboration strategy.
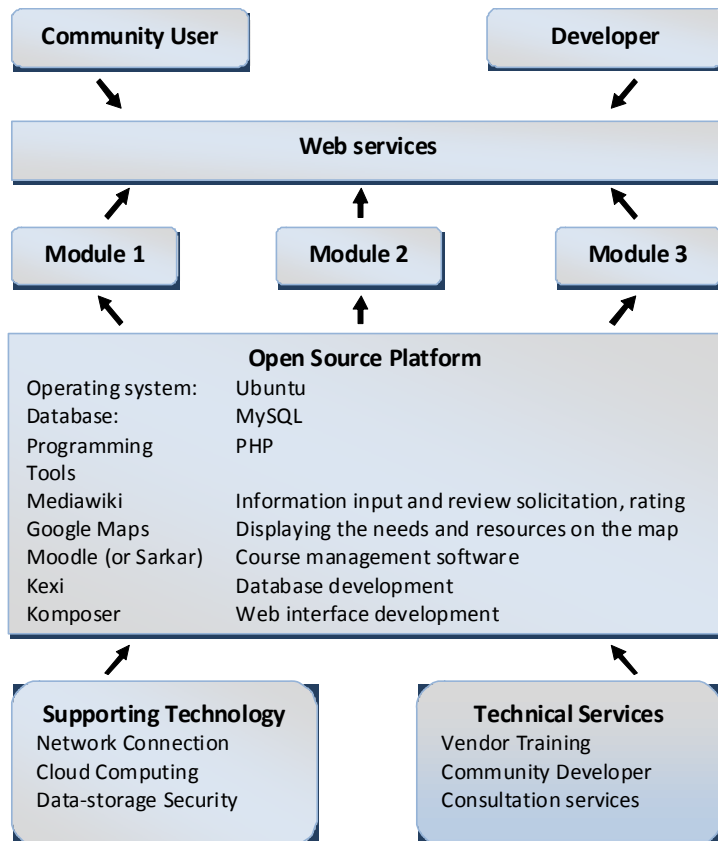

Figure 2.   *The overall information technology infrastructure for the support of the academic-community collaboration strategy.*

4   DEVELOPMENT OF WEB SERVICE TO SUPPORT THE ACADEMIC-COMMUNITY COLLABORATION STRATEGY

To examine the effectiveness of the overall IT architecture, we rely on the Design Science framework (Hevner et a., 2004) by designing and developing one particular Web service to support the academic-community collaboration strategy. This Web service is called Community Development Collaboration Service (CDCS). This section focuses on the description of what CDCS is and the illustration of what features or capabilities it provides.

As described in the introduction, collaboration is needed to drive the vision and the work among various stakeholders. The previous section presents our proposed strategy for academic-community collaboration in which core activities in the ABCD approach are identified and potential technology could be used to support these activities. Specifically, Figure 1 includes some of the appropriate technology that could be designed and deployed to facilitate and enhance the three key steps in the over academic-community collaboration strategy. These three steps are: (1) identify the community assets, (2) leverage assets, and share knowledge and information. Based on the guidance from our conceptual framework, we have developed CDCS. Our hardware consists of a Dell Server with a connection to the Internet. The operating system is the Ubuntu Server edition with Mediawiki and

other supporting software such as Apache, PhP, and MySQL installed. CDCS provides a web service to support key steps in our proposed academic-community collaboration Strategy. Essentially, CDCS is a web-based database designed to provide relevant information about the resources and needs from the community as shown in Figure 3.
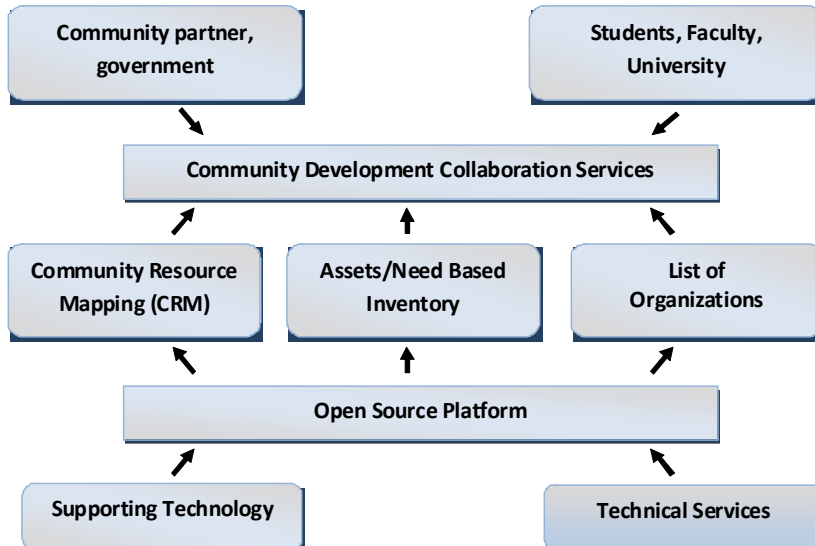

Figure 3.   Architecture for the development of CDCS

To support effective academic-community collaboration, we developed CDCS as an IT Service with modules that keep track of the following: (1) asset-based inventory, (2) need-based inventory, (3) map of community resources, and (4) Compiled list of organizations.

Figure 4.   Major modules in the CDCS web database: Map of local organizations, List of agencies, Opportunities/Needs, Student organizations by College, Type, and Fraternity and Sorority.

The first module is an asset-based inventory. This module is designed to solicit information about community success and collect data on available resources/assets identified by communities and

universities. Identifying resources/assets is not necessarily regarded as identifying ways to find money. While money is an important resource, resource/asset mapping includes more than just funding. Resource identification also covers human resources such as individuals' capabilities, abilities, gifts, skills, technical assistance, in-kind resources, voluntary services, academic expertise, along with for-profit organizations with shared goals and objectives, non-profit organizations, faith-based initiatives, business enterprises, community agencies' goals, and governmental (city, county, state, and federal) resources. At its core are associations of community members, both formal and informal. These are the engines of community action (Mathie and Cunningham, 2003). After the information is captured, the module will display the inventory information and make this information available to the communities.

Since deficiencies always exist in communities, almost all communities have a "need survey." The second module is a need-based inventory that collects data from the "need survey." In this module, these needs are translated into descriptions of problems, shortcoming, maladies, and dilemmas of people. As suggested by the ABCD strategy, these deficiencies alone should not be used as a basis to drive community development. In this project, the need-based inventory is used to provide pointers to where the resources/assets identified by communities should be directed and channeled for better utilization. The purpose of this module is to solicit needs posted by individuals and authorized agencies/organizations within a community, with the support and promotion from local universities that the community can trust and is willing to post their needs to the information portal of CDCS.

Description of opportunity/needs	Responsibilities include tutoring/mentoring high school students at any of the three program locations (near east side, south side, and West High School), helping create a welcoming and supportive atmosphere for the LIGHT participants, possibly facilitating various academic enrichment activities/sessions, possibly developing curriculum to assist the students in advancing academically and in life, and if volunteering during the summer, there are summer school tutoring opportunities.
Social group related to the needs	Children (5-12)
Category of interests	Children & Youth
Type of opportunity	On-going opportunity
This opportunity is sponsored by	Child Advocacy Services
This volunteer opportunity is available to the following types of volunteers	Adult (18+) Large Group (11+)
What hours and days of the week are you able to use volunteers?	Monday, Tuesday, Thursday
Volunteer site location	
Skills needed	Tutoring
Contact Person	Rob Carlisle
Address	Hammond Regional Office 1504 West Church Street Hammond, LA 70401
Website	www.childadv.net
Phone number	985-902-9583
E-mail	rcarlisle@childadv.net

Figure 5.   Data solicited in the needed-based inventory

The third module is a map of community resources. After the asset-based inventory is compiled, the information is then organized for accessing, viewing, and analyzing. One of the methods that this proposal uses to organize the asset-based inventory information is geotargeting, where the resources identified will be linked to the actual location and the result will be displayed on a map. This way, users can search for resources according to a specific location. Drill-down capability is also built in to provide more detailed information from each point on the map. Now, researchers can have access to data presented in multilayers including not only the location of the resource, the type of resources, but also the cluster and distribution of various resources available in a given area as well as their detailed information. In our proposed service of mapping the community resources, Google map extension is

used to map an area. The data are linked to points on the map and the details are shown from a Mediawiki page.

Figure 6.   Map of community resources filtered by type of organizations

The next module is a compiled list of community members. It is designed to solicit and display more detailed information about all users who post on either the asset-based or the need-based inventory. Information such as organization's name, address, phone, contact person, mission, history, type along with other relevant specific details is solicited in this module. The module is set up with a registration process. Hence, only an authorized user will be able to log in, access his/her own information, make changes, and update the content. Therefore, the module would be self-maintained by those who are the owner or creator of the content on their page. This is a unique feature and is made possible with the use of the open-source Mediawiki development tool.

Figure 7.   Data displayed in the listing of community members

CDCS functions as a central portal that identifies what resources are available and what needs are to be met. Its focus is to make the information on the community easily accessed, updated, and used, and hence to facilitate the matching of resources with needs in an effective manner. The information on CDCS can be used by students, faculty, community organizations, as well as local residents to work together in building a stronger and better community for all.

The actual CDCS web database is currently hosted at: http://cob.cdcs.selu.edu

As identified in Table 1, among the potential users of CDCS are: community organizations, general public, governmental and administrative entities, students, faculty members of a university.

USERS	SUGGESTIVE USES
Community organizations (profit and non-profit)	_ Post their organization's information on the web for publicity and public relations _ Input their contact information and services and resources that they offer _ Communicate their opportunities/needs
General public	_ Learn about available community development programs _ Engage and participate in such programs _ Volunteer to help _ Provide feedback and do the rating on the information
Governmental and administrative entities	_ Manage and promote community development initiatives _ Guide community development efforts by matching the right resources to the right opportunity/need. _ Assess and track community development programs
Students	_ Look at the information available and make a choice about getting involved _ Know what opportunities/needs are available and identify relevant ones _ Determine which opportunity/need fit their qualifications
Faculty	_ Match the community needs with their courses _ Place students in relevant projects _ Track the progress of the projects

Table 1.   List of potential users and suggestive uses for CDCS

5   PRELIMINARY FEEDBACK FROM USERS AND FUTURE PLAN

Driven by the Design Science framework (Hevner et al., 2004), the CDCS was evaluated in terms of, content quality, usefulness, functionality completeness, consistency and reliability of the CDCS. As a preliminary evaluation of the CDCS after it was tested and implemented online, it was made available to a limited audience. We conducted a preliminary survey to solicit feedback from users before a full launch of the system. The purpose of this preliminary survey was to solicit mainly students' opinions, perceptions, and feedback after viewing CDCS. Twenty one students consisted of seventeen undergraduates and four graduates with prior involvement in community services were invited to participate in this survey. Here are the results from our preliminary survey with the focus on the content of CDCS.
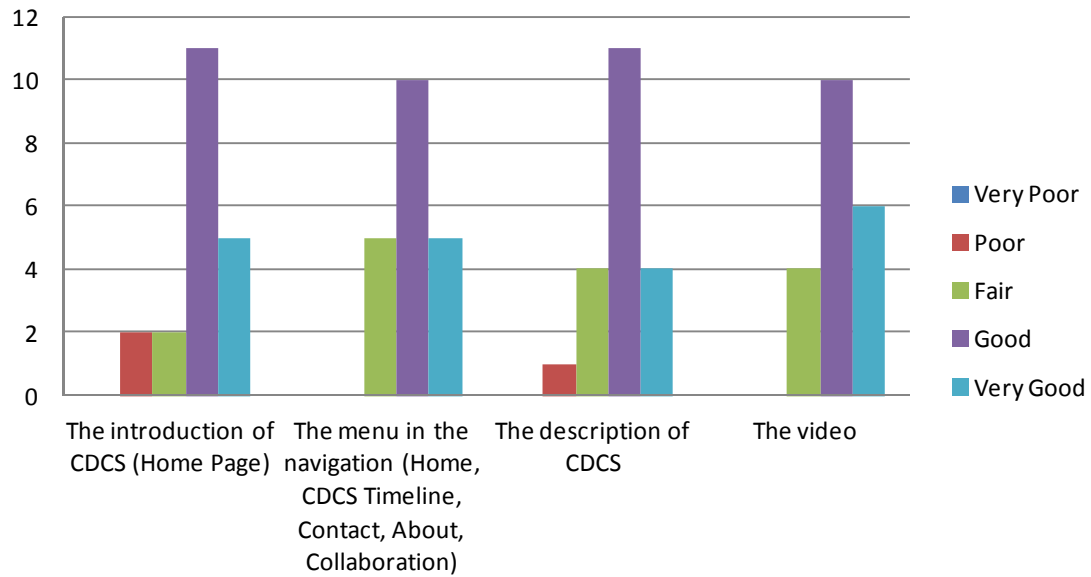
Rating on the content of CDCS

Table 2.   Users' responses with regard to the quality of the content presented on CDCS
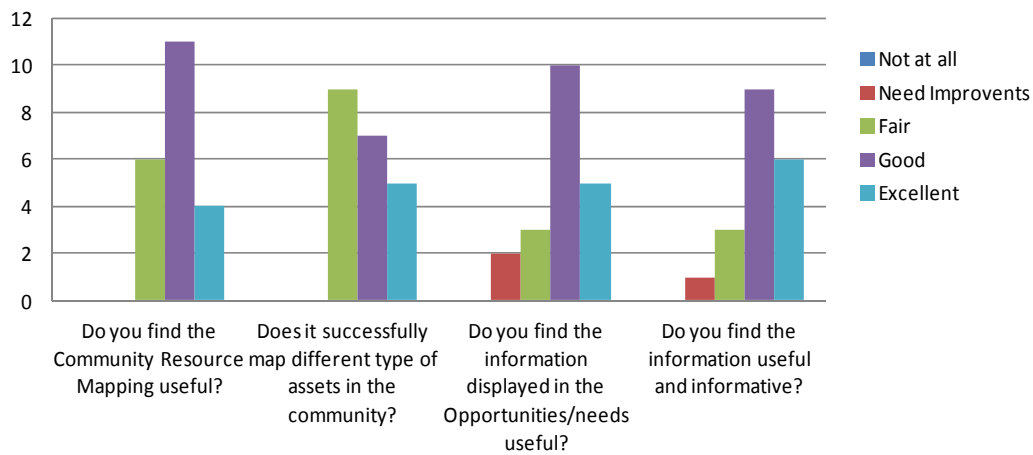
Usefulness of CDCS

Table 3:   Users' responses on the usefulness of the information presented on CDCS

Rating on how CDCS helps in facilitating the academic-community collaboration strategy
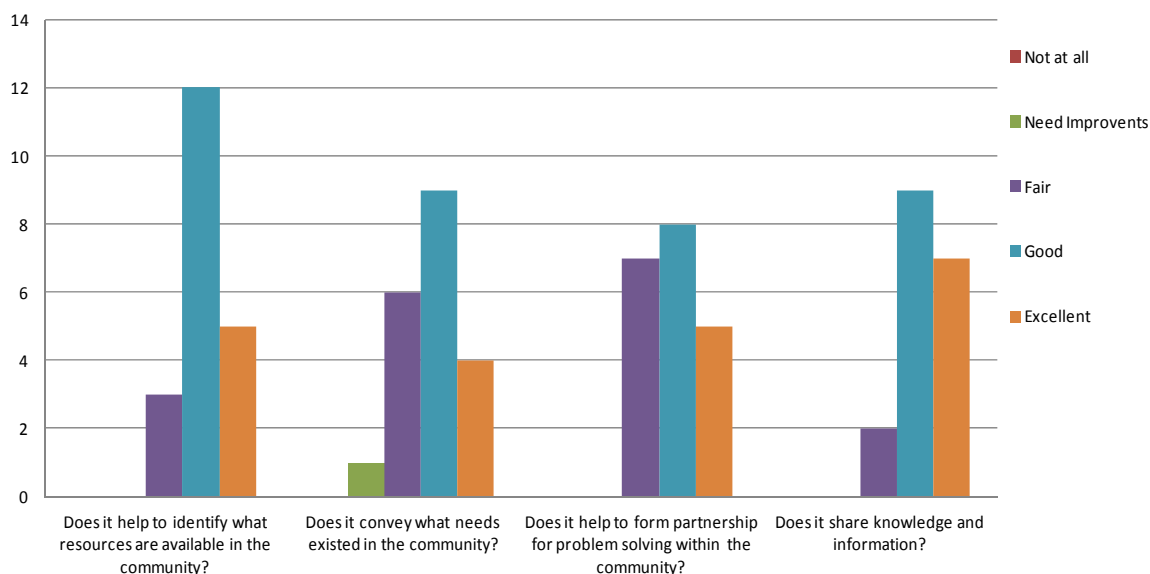

Table 4:   Users' rating on how CDCS contributes to key steps in the academic-community collaboration strategy

Overall, the users' responses have been quite positive. With regard to the content quality of CDCS, over 75% of users perceived that it is either good or very good. In term of how useful the information on CDCS is, about 70% of users indicated that it is either good or excellent. Finally, over 60% or more of users rated that CDCS is either good or excellent in facilitating the key steps in the academic-community collaboration strategy.

Also based on the preliminary survey, we identify some limitations of the CDCS related to the content quality and perceived usefulness of the CDCS. Therefore, our future plan will be firstly focused on the introduction and description of CDCS (see Table 2) that may be new to the potential users. Secondly, we will improve the usefulness of the CDCS information by enhancing the visualization of the information on opportunities and needs of the community (see Table 3) using a variety of graphical methods like drill-down and thermatic map method etc.

6   CONCLUSION

In this paper, we presented a proposed strategy for academic-community collaboration based on two frameworks: the ABCD approach and the value chain analysis. This strategy is particularly useful in the area of community development where collaborations from various stakeholders are critical. We identified the core and support activities that one could easily follow in launching a community development initiative. By applying value chain analysis, we identified key areas where information technology could be used to support, facilitate and enhance the collaboration process. Based on this, we proposed an overall IT infrastructure for the support of academic-community collaboration. This overall roadmap helps guide us successfully in developing CDCS based on an open-source platform. CDCS offers not only modules to facilitate and support asset-based community development activities, community resource mapping work and activities, but more importantly it provides an important linkage to integrate different modules into a coherent system where data are shared and information is made accessible to the public.

One of the unique potentials of CDCS is to lay the groundwork for the collection and organization of data related to community assets, locations, and needs that currently are not available from

government or commercial sources and where, if the data/information exist, they are fragmented and often outdated. These data when integrated with the existing data from government and commercial sources would be a valuable social database for research purposes. This kind of rich, in-depth, and multi-layer data on resources and needs in small communities would serve not just one research group but also cross disciplines and locations.

We used the Design Science framework (Hevner et a., 2004) to examine the effectiveness of the CDCS. Our preliminary survey findings suggest that most of the potential users find the overall content quality and perceived usefulness of the CDCS good or excellent. However, some limitations of the CDCS, e.g. visualization and content quality of certain CDCS information, are also identified. Future improvement is required as projected.

Anyhow, the successful development of CDCS shows that it is feasible to create useful web service from open-source platform. As a result, such web service could be made available widely and freely to the public. This success may strengthen the claim that it is possible to do more with less through the use of open-source technology. In the midst of the economic upheaval, this may be a welcome news because now it is feasible to build needed information technology infrastructure and develop useful web services and make them available at no cost to any users who are doing community development and civic engagement activities. System such as CDCS could be used to improve education, enhance workforce development, foster social community development, and facilitate economic development in a community by identifying available services and resources, disseminating areas of needs, and then matching the resources and the needs appropriately and efficiently.

References

Collett, S. (2010, Nov 22). Open-Source software grows up. *Computerworld*. Retrieved from http://www.computerworld.com/s/article/9197420/Open_source_grows_up

Conlon, M.P. (2007). An examination of initiation, organization, participation, leadership, and control of successful open-source software development projects. *Information Systems Education Journal, 5*(38), 3-13.

Conlon, M.P. and Hulick, F.W. (2006). Is there a role for open source software in systems analysis? *Information Systems Education Journal, 4*(88), 3-9.

Florida, R. (2012, Mar 30). *Why Some Cities Lose When Others Win*. Retrieved May 23, 2012, from http://www.theatlanticcities.com/jobs-and-economy/2012/03/why-some-cities-lose-when-others-win/1611/

Hevner, A.R., March, S.T., Park, J. and Ram, S. (2004). Design Science in Information Systems Research. *MIS Quarterly*, 28(1), 75-105.

Hillier, A. and Koppisch, D. (2005). Community activists and university researchers collaborating for affordable housing: Dual perspectives on the experience. *Journal of Poverty*, 9(4), 27–48.

Kretzmann, J.P. and McKnight, J.L. (1997). *Building Communities from the Inside Out: A Path Toward Finding and Mobilizing a Community's Assets*. ACTA Publications, Illinois.

Lennett, J. and Colton, M. E. (1999). A winning alliance: Collaboration of advocates and researchers on the Massachusetts Mothers Survey. *Violence Against Women*, 5(10), 1118–1139.

Lindau, S.T., Makelarski, J.A., Chin, M.H, Desautels, S., Johnson, D, Johnson, W.E. Jr, Miller, D., Peters, S., Robinson, C., Schneider, J., Thicklin, F., Watson, N.P., Wolfe, M. and Whitaker, E. (2011, Mar-Apr). Building community-engaged health research and discovery infrastructure on the South Side of Chicago: science in service to community priorities. *Prev Med.* 52(3-4), 200-207.

Mathie, A. and Cunningham, G. (2003). From Clients to Citizens: Asset-based Community Development as a strategy for community-driven development. *Development in Practice*, 13(5), 474-486.

Pearlman, S.F. and Bilodeau, R.A. (1999). Academic-community collaboration in teen pregnancy prevention: New roles for professional psychologists. *Professional Psychology: Research and Practice*, 30(1), 92-98.

Peterson, D., Minkler, M., Vásquez, V.B. and Baden, A.C. (2006). 'Community-based participatory research as a tool for policy change: A case study of the Southern California Environmental Justice Collaborative', *Review of Policy Research*, 23(2), 339–353.

Porter, M.E. and Millar, V.E. (1985). How information gives you competitive advantage. *Harvard Business Review*, 63(4), 149-174

Stahl, R. and Shdaimah, C. (2008). Collaboration between community advocates and academic researchers: Scientific advocacy or political research? *British Journal of Social Work*, 38, 1610-1629.

Tajik, M. and Minkler, M. (2007). Environmental justice research and action: A case study in political economy and community-academic collaboration. *Int'l Quanterly of Community Health Education*. 26(3) 213-231.

Viswanathan, M., Ammerman, A., Eng, E., Gartlehner, G., Lohr, K.N., Griffith, D., Rhodes, S., Samuel-Hodge, C., Maty, S., Lux, L., Webb, L., Sutton, S. F., Swinson, T., Jackman, A. and Whitener, L. (2004). *Community-Based Participatory Research: Assessing the Evidence*. Evidence Report/Technology Assessment No. 99 (prepared by RTI University of North Carolina Evidence-Based Practice Center under Contract No. 290–02–0016), AHRQ Publication 04-E022–2, Rockville, MD, Agency for Healthcare Research and Quality.