December 2002

ENHANCING THE G2C RELATIONSHIP THROUGH NEW CHANNELS OF COMMUNICATION: WEB-BASED CITIZEN INPUT

Wafa Elgarah
University of Central Florida

James Courtney
University of Central Florida

ENHANCING THE G2C RELATIONSHIP THROUGH NEW CHANNELS OF COMMUNICATION: WEB-BASED CITIZEN INPUT

Wafa Elgarah and James F. Courtney
University of Central Florida
welgarah@bus.ucf.edu jim.courtney@bus.ucf.edu

Abstract

This paper proposes a web-based system to support citizen participation as a new way to facilitate and integrate citizen input into all stages of public decision processes. Citizen participation is vital to a responsive government. It is one way to improve government to citizen relationship and a means to minimize tension and conflict among all concerned. We believe that the proposed system will address many issues and its use will lead to better decisions and more satisfied citizens.

Introduction

Citizen participation in governmental affairs has been defined as:

> "a process by which people are enabled to become actively and genuinely involved in defining the issues of concern to them, in making decisions about factors that affect their lives, in formulating and implementing policies, in planning, developing and delivering services and in taking action to achieve changes." (ESDH, 1999, p.9)

Citizen participation has been the subject of research studies for decades (Arnstein 1969, Webler, et al. 2000, Lowdnes, et al. 2001, Cumming 2001). Many researchers and public agencies have examined the importance and implications of citizen participation in the decision process. Public sector organizations have been exploring new ways in which they can use information technology to improve processes, service delivery and relationships with citizens. The National Performance Review recommended that government agencies should "re-engineer government activities, making full use of computer systems and telecommunication to revolutionize how we deliver services" (NRP, 1993, p.v.).

Citizen input is clearly vital to a responsive government, because it is through communication that the needs, desires and wishes of the citizenry become known. Government agencies have been maintaining a number of mechanisms for communicating with citizens. These mechanisms include public meetings, telephone service, radio and television broadcasts, and complaint forms. As indicated by interviews in an ongoing study with city of Houston officials,

> "If we get feedback (from citizens) that they don't support the project, then we stop….We are not going to go out and force it…if they don't want it, they don't want it."

> "…we want that (citizen's feedback) to happen during design, when they are surveying, and not when the contractors are out there staking for construction and then you hear from the people who are actually affected that they don't want it…"

> "…Who would be against building another ring road? I think that is the single biggest driver. Saying that, I don't think that anything gets done if the public doesn't want it. And the reason the infrastructure gets built is because it sounds ok to the public too."

Thus citizen participation is important to city officials. Citizen participation means involvement in the decision making process by the constituents in matters that affect their communities and the quality of their lives.

- Citizen participation has many benefits. Cogan, et al. (1986, p.284) have identified five benefits of citizen participation in the planning process:
- Information and ideas on public issues
- Public support for planning decisions
- Avoidance of protracted conflict and costly delays
- Reservoir of good will which can carry over to future decisions; and
- Spirit of cooperation and trust between the agency and the public.

These benefits are important to all government agencies but especially to infrastructure decision makers since their decisions directly affect the quality of life of the citizenry.

Currently, there are different methods through which citizen participation is sought. These methods range from public hearings to surveys, polls and focus groups. Even though these methods exist, many citizens do not participate for several reasons. Lowndes, Pratchet and Stoker (2001) found that there are four sets of factors that affect citizen's non-participation; a negative view of the local authority, a lack of awareness about opportunities to participate, a lack of council response, and issues of social exclusion ("it's not for people like me"). They suggest services interfaces "like one stop shops" may be important sites for consultation on different issues.

Our premise is that a web-based citizen participation system should make government more effective by providing for open dialogue between citizens and public officials. This system will allow for the highest level of engagement in Arnstien's (1969) ladder of citizen participation, as described next.

Arnstein's Ladder of Citizen Participation

Figure 1 shows the ladder of citizen participation proposed by Arnstien (1969). This ladder presents the different levels of engagement with citizen participation. Arnstein (1969, p216) defines citizen participation as "the redistribution of power that enables the have not citizens, presently excluded from the political and economic processes to be deliberately included in the future." This ladder represents eight categories raging from non-participation to full citizen control. The top three categories represent the highest level of participation. At the partnership level, citizens share the planning and decision making responsibilities. The delegated power rung represents a level where citizens have authority to ensure accountability of the organization. The top level, citizen control is the level where citizens have complete power and take over the entire planning and managing of programs. Our proposed system will allow at least a partnership level of participation. The challenge is to determine the level of participation that would produce effective decisions to better the quality of life of the citizenry.

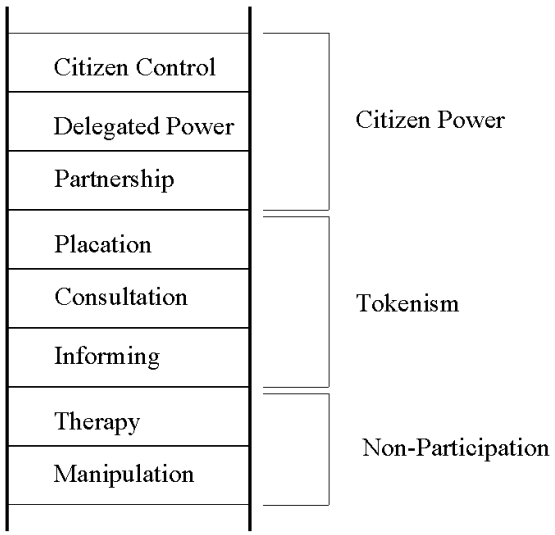

Figure 1. Eight Rungs on a Ladder of Citizen Participation (Arnstein, 1969, p.217)

The Research Approach

Our Thesis: A web-based citizen input system can help city officials improve planning, budgeting and management processes, and enable more effective, efficient, and responsive decisions, thereby advancing up Arenstein's ladder and improving the quality of life of all the citizenry.

Research Questions

Our research will specifically address the following questions:

1. What level of engagement on Arnstein's ladder can a web-based system support, and will it yield better results than the current approach?

2. What are the major components of a web based citizen input system and what is an appropriate architecture for the processes and data underlying such a system?

3. What are the perceived implications of such systems on the quality of life in general and the decision process in particular?

4. In what way might we expect a web based citizen input system to affect the roles of the government officials?

5. What kind of demands do we expect such system to make upon the government officials?

6. What can be done to assure that all citizens have access to the system, given that many do not have readily available internet access?

We will address these questions by extending work done in a previous project. In our previous research, based on a case study of the City of Houston, we have begun developing a prototype for an integrated decision support system to streamline aspects of Houston's decision-making process related to infrastructure, including streets, roads, bridges, water supply, waste water treatment and drainage. Providing an effective infrastructure that integrates seamlessly with private sector processes is one of the most important functions of city government, and infrastructure development and maintenance constitutes a vast portion of a city's budget.

Citizens are a major stakeholder group in the infrastructure decision process. Their participation and input in selecting, prioritizing and implementing projects is crucial to the success of the projects. The proposed web-based system will help streamline citizen's participation and provide for a dynamic new way to engage citizens in the decision process.

Open Dialogue System

The system will support a true and equal dialogue, in the sense of Habermas "ideal speech situation", between the agencies and the citizens. Habermas calls for free and totally uncoerced discussion among all interested and affected parties (Webler et al. 2001, p. 568). The 'ideal speech situation' concept was the first key concept in his thoughts on rethoric. The 'ideal speech situation' requires that all participants must have equal opportunity to participate. Every participant is allowed to express his/her ideas openly and question any assertion. The participation must *not* be constrained by activated role or status differences or "one-sidedly binding norms" (Stickle, online). That is the influence of force and power is eliminated, allowing participants of all status to contribute equally. And, very importantly, "the participants in an ideal speech situation [must] be motivated solely by the desire to reach a consensus about the truth of statements and the validity of norms." (Bernstein, 1995 p.50-51, quoted from Stickle - online)

In summary, the proposed system will present the following benefits:

- Allow continuous citizen participation throughout all phases of the decision making process.
- One stop shop where all citizens can voice their opinions and post their concerns.
- Provide equal opportunities for participation.
- Reduce cost of citizen participation – the current participation methods are very costly and time consuming.
- Increase the level of citizen participation to higher levels thus reducing the probability of unethical conduct and improving support to government decisions.
- Assure multiple perspectives in the decision making process.
- Provide an open forum for all citizens to take part of the "ideal speech situation."

With today's advanced technologies developing such a system is very feasible. The proposed system promises an integrated access point where individuals can share relevant information and input their opinions and feedback on projects the city is planning. This system will open up new channels of communication between citizens and the government. The purpose is to make it more convenient for the public to provide feedback, so decision makers will know what projects are supported by the citizenry. Such a system will give individuals and civic groups the opportunity to participate in decisions affecting the quality

of their own lives. A participatory decision process is important because it develops a sense of ownership and partnership and also allows for better understandings and commitments, which are necessary to implement the final decision.

The Web will facilitate the integration of technical information, values and concerns. The mobility of the web facilitates communication, and stakeholders can have access to information and exchange information and even attend meetings remotely thus reducing some of the barriers of the current situation and open a new window to better communication. The proposed system promises an integrated access point where all stakeholders can share relevant information. Citizens can view council meetings online and participate by voting and presenting their worldviews without having to be physically present at the meeting. Additionally, a web-based system will eliminate some the barriers to citizen non-participation mentioned earlier. It will provide equal opportunities for participation to citizens. It presents incentives to contribution through availability and ease of accessibility. It will bring new meaning to the concept of citizen participation by allowing for higher levels of participation and therefore a positive attitude toward the local authorities.

The Threat of The Digital Divide

While we believe a web-based system can greatly enhance citizen participation, the fact that some citizens do not have ready access to the Internet may pose problems. In that regard, the city of Houston has pioneered a revolutionary new service to bridge the "digital divide." This service is composed of a suite of virtual desktop software applications that will allow every citizen of Houston to have access to the Internet. Mayor Brown stated that "this system truly bridges the digital divide that has kept some of our citizens from participating in the information technology explosion." This service will be available at public libraries and government offices.

The digital divide presents a challenge for the success and implementation of a system such as the proposed one. However, with the dropping cost of Internet access and the increasing number of citizens using computers and the Internet, the phenomenon does not present a huge threat. According to the National Telecommunication and Information administration, 174 million people or 65.6 percent of the U.S. population were computer users as of September 2001. One hundred forty three million people or 53.9 percent of the population used the Internet. Moreover, government agencies are implementing policy measures to improve information communication technology in an attempt to closing the digital divide. These measures include, making internet access in schools and other public institutions, developing a robust infrastructure, developing regulatory initiatives to improve network competition (OEDC, 2001). Concomitantly, the diffusion of new technologies such as Web TV and digital TV will accelerate the closing of the gap. Nevertheless unequal access to web-based systems is a factor to be considered in assessing input from the system.

Methodology

We will use a prototyping approach to develop the system. First, a small-scale project will be chosen for an initial implementation. This will likely be a system to input requests for service, such as water line or sewer maintenance or to a system to enter complaints or suggestions about current service. Another alternative would be a system to input requests for major capital improvement projects, such as road overlays or water line replacement. A small prototype system will be deployed for the types of projects selected. Various techniques will be used to advertise the availability of the system. A link to providing input will be made available on the city's website, notices will be placed in relevant public buildings and on computers that the city is providing in its digital divide program. Consideration will be given to including notices in utility bills and in contacting the local media, whose assistance may be instrumental in gaining support for the project. The number of suggestions, complaints and requests will be logged and compared to the amount of such input in the old, manual system.

Also, suggestions concerning modifications to the system itself will also be solicited from users, including public officials. The system will be redesigned and redeployed on the basis of these suggestions. This will be done on an on-going basis, with the intent of continual improvement in both the system and the quality and quantity of the interaction it provides. We will take an object-oriented approach to the development process with intent that this will enable effective plan - build – deploy – elaborate cycles, as described by Larman (1998). The software product Together (tm) from Together Soft Corporation supports this approach and the Unified Modeling Language, and will be used to develop the system.

Conclusion

The integrated web-based citizen input system will bring together the diverse parameters and factors that contribute to urban infrastructure planning. There is considerable evidence that individual input will enhance the decision making process and provide government officials with valuable information to better serve the needs of citizenry. We expect that our framework would be applicable to other urban development contexts not only infrastructure. Our analysis will provide valuable information to government officials who wish to create a better environment for their constituents.

References

Arnstein, S.R."A ladder of citizen participation". *American Institute of Planners*, July 1969, p.216-224.

Cogan, Arnold, Sumner Sharpe, Joe Hertzberg. 1986. "Citizen Participation." The Practice of State and Regional Planning. American Planning Association. Chicago, Illinois.

Cumming, J.F. "Engaging Stakeholders in Corporate Accountability Programmes: A Cross-Sectoral Analysis of UK and Transnational Experience," Business Ethics: A European Review, 2001.

ESDH, "Community participation in local health and sustainable development: a working document on approaches and techniques," World Health Organization, 1999, Series 4. http://www.makingcitieswork.org/urbanws/Guide/Key%20Resources/book4.pdf

Larman, Craig "Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design," Prentice Hall, 1998.

Lowndes, V., Pratchett, L., and Stoker, G. "Trends in Public Participation: Part 2 – Citizen's Perspectives," Public Administration, Vol. 79 No.2, 2001, p. 445-455.

National Telecommunication and Information Administration, *A NATION ONLINE: How Americans Are Expanding Their Use of the Internet*, US Department of Commerce, 2002.

Organization for Economic Cooperation and Development (OEDC), *Understanding the Digital Divide*, 2001. p.23.

Stickle, S. "Introduction to J.Habermas," www.hu.mtu.edu/~dsulliva/rn/pe/hbrms.htm, accessed on March 2002.

Webler, T., and Tuler S. "Fairness and Competence in Citizen Participation – Theoretical Reflections From a Case Study," Administration & Society, Vol. 32 No. 5, November 2000, p. 566-595.