

‘Created by everybody’: Engaging participation with mobile interfaces

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ABSTRACT

Cities define themselves through the regions that surround them. Thus, the specific characteristics of “the city” can change dramatically even within one nation. Nevertheless, we can identify key criteria for thriving cities. Healthy cities have governments that fulfill at least citizens’ physical needs; great cities fulfill their emotional and psychological needs as well. With responsiveness to citizens’ needs as a gauge, we can focus on improving struggling cities, and perhaps even make them great. With a study of Chicago ‘edge cities’ as a starting point, we argue for the integration of camera phones and more conventional web-based interfaces. By linking citizens with each other and with municipal planners, such a strategy has the potential to reach across the ‘digital divide,’ mediate between conflicting interests and priorities, and introduce higher standards for accountability in government.

Author Keywords

Urban computing, mobile interfaces, civic engagement

INTRODUCTION

Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody. [13]

Once dominated by debates on urban renewal and the death of the downtown, the American popular conversation around cities has gotten more diverse over the past decade. Moving beyond traditional city limits, it spans edge cities (1991 [5]), “exurbs” (invented in 1950, but popularized by the 2004 election), and the dense urban “technopoles” of Manuel Castells [3]. This year even saw the specter of the ‘feral city.’ As evoked by military historian Richard Norton, a city becomes feral when its government can not provide basic services or assure its residents’ safety [16].

Norton identifies equitable and honest distribution of basic services (i.e., policing, legislation, sanitation) as a condition for civic health. But as Maslow’s hierarchy of human needs [14] reminds us, health and safety are the basis for other, more individual desires that cities also fulfill. Following Jane Jacobs’ oft-quoted praise of cities as places with ‘something for everybody...created by everybody,’ we can think about the engagement of ordinary people in public life as a critical component of functional cities.

The question is: can respectful use of information and communications technologies help them thrive?

THINKING ABOUT CITIES

“City” has no absolute definition. It refers to specific places in specific regions that are relatively larger, relatively denser, and relatively more heterogeneous in population than the surrounding areas [20]. A city is more than a village on steroids; it is at once a “physical structure,” a “system of social organization,” and “a set of attitudes and ideas, and a constellation of personalities [20].” The interaction between these elements creates the distinctive patterns that distinguish one city from another.

Thriving cities have complex ecosystems of industries and interests. Information exchange – what has been called “the movement of people and goods, personal contact and interactions, telecommunications, as well as visual input from the environment” – help them adapt to changing conditions [4]. Improving urban problems starts with affecting the flow of information across various sectors of the population.

These problems take diverse forms around the world and even within regional areas. As Carter et al found in their comparative study of the greater Chicago area, inhabitants (and planners) of the city, the suburbs, and the nearby edge city reported very different priorities and needs [2]. While the planners tried to provide affordable housing for the low wage workers who commuted daily into the ‘edge suburbs,’ many residents told the study leaders that they did not want low income housing in their neighborhoods. Nevertheless, many planners interviewed for the study believed that residents agreed with them. Though seemingly dormant, the fissures uncovered in the study promised later conflict.

The remainder of this paper addresses problems like those reported in the Chicago study. This typical ‘edge city’

conflict results from uniquely North American histories of urban planning, immigration, and economic development. However, the solutions proposed may be useful to other cities and regions.

PARTICIPATION: POWER AND PERIPHERY

The ladder of engagement

Arnstein's ladder of engagement [1] offers a model for negotiating disjunctive agendas like those in Carter et al's edge city. She proposes a ladder metaphor for citizen engagement in civic life, with the lowest rungs representing modes of engagement with little agency for citizens in municipal government, and higher rungs offering more agency. Modes can have both positive and negative effects. For example, "informing" (one of the lowest rungs) sounds positive, but can also represent the substitution of one-way broadcasting in place of a dialogue or conversation.

As Arnstein herself points out, the ladder is a deliberate simplification. Cities are constellations of diverse actors with complex needs and strengths – not opposing monolithic blocks. Nevertheless, the ladder suggests that there may be multiple strategies for giving ordinary people a say in civic life.

How does engagement happen?

Though it may be in citizens' best interest to act more aggressively in municipal life, most people find it difficult to maintain a commitment to doing so. Community technologist David Wilcox points out that "Participation is peripheral to the way most people lead their lives. They/we are mostly concerned with relationships – with friends, family, workmates.... Public officials, politicians [sic] and their facilitator helpers are at the edge of vision, unless there is a big threat or opportunity..... new airport planned, neighbourhood renewal proposed, school threatened with closure. Then we get interested." [19]

Since what motivates participation is a perception of crisis, democratic civic politics are usually messy and contentious. Political theorist Chantal Mouffe calls this kind of civic participation an "agonistic pluralism," in which diverse interest groups constantly struggle with themselves and each other to articulate their needs and achieve change [15]. This kind of democratic dynamism is sustained not only by rational debate, but also by the emotional reactions of individuals to the world around them.

CURRENT TECHNOLOGICAL INTERVENTIONS

We can map Arnstein's ladder, created in 1969, to some current technologies that engage citizens with the work of municipal government. Many municipal governments around the world have their own websites and email addresses, which correspond to Arnstein's information and consultation stages. As well, activist online tools such as the BBC's iCan [8] helps assemble coalitions online, while Meetup.com helps activists around organize in-person meetings [11]. More recently, mobile phone applications

like txtmobs.com [12] allow groups of mobile activists coordinate activities during public protests. Britain's FaxYourMP.com [7] does what it says: it uses a web interface to send faxes from constituents to representatives who cannot be reached by email. FaxYourMP, in particular, reports significant success: 67% of their participants had never contacted their elected representatives before using the service [7].

All of these applications are designed to move citizens 'up the ladder.' Yet many of them are crucially inaccessible to citizens where and when they might significantly improve rates of civic participation– to those who do not have easy access to the world. Often, those likeliest to have significant problems with city services are also unlikely to have access to a computer or to have computing skills. As well, desktop-based applications are often not accessible during times of stress or other stimulus: on the road, while shopping, on public transportation, or at work.

NEW MODELS FOR CLIMBING THE LADDER

If, as Wilcox suggests, "daily visibility" inspires the kind of engaged participation that can create responsive government, it makes sense to look at the most commonly used technologies in daily use around the world.

Mobile phones are stunningly popular internationally, especially in developing nations. The International Telecommunications Union, a wing of the United Nations, reported in December that mobile phone subscriptions have doubled internationally since 2000 to almost 1.5 billion [17]. That's about a fifth of the world population.

Internationally, mobile phones with cameras are the fastest-growing consumer technology ever [6]. Combined with photograph-based communities like Flickr [9] and Fotolog [10], camera phones enable information exchange and the forming of social bonds through shared visual experiences.

Communal meta data creation makes Flickr an especially interesting model. Users themselves (or members of their social networks) tag their own photos. The Flickr web service can then offer a communally generated ontology – sometimes called a "folksonomy" [18] – of aggregated descriptions and comments linking photographs and people. Because social interaction generates folksonomies over time, they reflect the priorities and norms of the communities producing them.

Visible and accessible engagement

Given the success of mobile blogging and online communities such as Flickr, integrating phone-based and web-based interaction seem to be one way to improve upon current systems that support civic participation. Let's return to the edge cities described in Carter et al's study.

Inclusion Using camera phones as an interface to civic initiatives could make the planning process more inclusive,

opening up participation to the lower wage workers whose long commutes are currently invisible to the residents.

Evidence Photographs from mobile phones, tagged with the id of the nearest cell tower and time stamped on entrance into the system, can provide proof to support complaints or campaigns. As well, publicly available "before" and "after" shots could help residents hold their representatives accountable for basic services.

Community Shared reference points, such as photographs and discussions, can help facilitate the emergence of plural communities of interest. These communities can then use those reference points as the foundation for negotiating and articulating shared – or disjunctive – goals and values.

CONCLUSION

Cities remain healthy when they listen to – and meet – their inhabitants' needs. But in order to do so, citizens must take agency within the political and planning process. This paper has explored one way to help citizens enter the political sphere. There are many others. But by bringing the means of participation to spaces unreachable through the desktop – the commute, the supermarket, the coffee break – we can promote the conditions under which cities and civic dialogue can thrive.

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