
Rethinking Local Conversations on the Web

SAMEER AHUJA, MANUEL PÉREZ-QUIÑONES, AND ANDREA KAVANAUGH

1 Introduction

Local voluntary groups are crucial to creating awareness and drawing average citizens into dialogue about their communities (Putnam 2000; Verba and Nie 1972). These groups act as intermediaries between the individual and the government (Verba et al. 1995). But many voluntary organizations face challenges of leadership burnout and limited resources. There is growing evidence that information and communication technology aids in resolution of these problems and increases participation among the members of these organizations (Kavanaugh et al. 2007).

While the mainstream Web has seen explosive growth of social software systems in the past few years, local online deliberation systems are still using the traditional discussion forums and email listservs. Online deliberation systems for small groups have unique design challenges that separate them from mainstream systems. Hence mainstream social software systems do not translate very well to the local environment. However, we believe that there is tremendous potential in using technology, in the form of social software and information aggregation tools, to help facilitate citizen-to-citizen and citizen-to-government interactions.

In this chapter, we argue that current social software is not a good fit for local conversations. We then describe a design for Colloki, an online ‘local conversation hub’ that we are designing in close collaboration with several civic organizations in Blacksburg, Virginia, such as the grassroots organization, Citizens First, and the community computer network known as the Blacksburg Electronic Village, which represents the Web presence of many local community groups.¹ This design aims to utilize features and patterns of social software (Web 2.0) in a local setting to provide what we believe is a more effective local conversation medium.

2 Social Software and Web 2.0

Social software can loosely be defined as software that enables people to rendezvous, connect or collaborate through computer-mediated communication. This type of software has existed for years in the forms of listservs, forums, newsgroups, and other online systems. Recently, however, blogs (Tepper 2003), Really Simple Syndication (RSS) feeds, tagging systems, collaborative filters, and other technologies and features collectively referred to as Web 2.0 have made social software very popular, particularly among young computer users. A recent Pew Internet & American Life Project found that 55% of all American youth (ages twelve to seventeen) use some form of social networking site (Lenhart 2007).

Social software today goes beyond email and forums in that it allows social networks to be formed among people who already have something in common. For email and forums, users must know each other’s email address or where to find a forum with a particular topic. Social software, on the other hand, is organized around a particular activity or topic, such as photo sharing. Users often find value in putting their information in a social system. But the biggest value comes from the social network and the ‘sum of the parts’ effect that comes from many people crossing paths online.

One of the most intriguing features of most social software systems is the tagging of resources by the members of the community. We are just beginning to understand how this tagging works, its implications, and its possible uses (Furnas 2006; Marlow et al. 2006). Marlow and colleagues (2006) have proposed a taxonomy that offers two classifications for social networking systems which support tagging. The first refers to user incentives. All social systems have user provided content. Users must have an incentive to contribute information to the site. The incentive can be organizational, such as saving a URL in del.icio.us so that it can be found at a later time, or social, such as uploading pictures to Flickr to share with

¹ See <http://citizensfirstforblacksburg.org> (last accessed November 1, 2008) and <http://bev.net> (last accessed November 1, 2008).

time, or social, such as uploading pictures to Flickr to share with others. In other instances, providing content serves a role of attracting attention, for example uploading video files to YouTube. In addition, social software systems provide ways for users to organize their content in a flexible manner, using folksonomy to minimize predefined categories and structures (Veres 2006).

The second classification focuses on system design and attributes, including connections, commenting capability, and syndication. Social systems find ‘connections’ between users based on the system’s organizational scheme. Finding these connections might not be the primary goal of these systems, but it is nonetheless a feature (boyd and Ellison 2007; Lampe et al. 2006). In general, social software exploits weak ties for added functionality and benefits—or what Marlow et al. (2006) calls ‘social connectivity’. Social systems also provide commenting features that allow some form of community discussion. The discussion, however, varies, from polite social commentary to product reviews to debate. Finally, most social systems provide some form of syndication, permitting the user to ‘subscribe’ to a particular stream of information as it becomes available. Some successful social systems also provide a developer ‘application programming interface’ or API that allows others to build extended services, including importer/exporter tools, offline viewers, editors, and visualizations.

3 Social Software and Local Conversations

Often finding local news sources and local online discussions is difficult. First, news agencies devote fewer and fewer resources to local issues. Second, online deliberation at the local level often occurs in particular groups, deterring broad citizen participation. Third, conventional social software systems (e.g., Digg, Slashdot, and similar sites) work in part due to the large number of people participating and are not as effective when the social network is small.

In addition, for local participation, the number of participants will always be low when compared to national opportunities for discussion, as only people with local concerns would be participating. Automated solutions and aggregators are not sensitive enough to pick up material that is truly relevant. Either the service is too simplistic, doing mostly ‘surface’ checks (e.g., matching ‘Blacksburg’ to identify local news), or it requires specialized programming to do ‘smart’ aggregation.

A solution is needed that: (1) does not depend on thousands of users participating in the social networking sites, (2) does not depend on automated ways of identifying relevant information, (3) provides support for opinion leaders, politically active citizens, and lurkers, and (4) makes use of

Web 2.0 concepts (content syndication, tagging, user-provided content, and organization).

4 Colloki

Our goals for Colloki are to support local discussion and information discovery. Colloki is a replicable social networking system that aggregates news and local information in such a way that it becomes the ‘hub’ of local deliberation. The goal of aggregating information is to have a combination of automated plus human provided content. In addition, the Colloki site will include blogs, citizen commenting, links to town and county information, links to other relevant online information, aggregation of new feeds, and other online mechanisms to support citizen-to-citizen interaction. In the remainder of the paper, we present the design of Colloki as it stands at the time of this writing. We have developed this design using low fidelity paper prototypes (Snyder 2003). These prototypes provide a visual understanding of the concepts being discussed and help us gather feedback on our design from local citizens before we commit resources to building the system.

User Contributed Content: Citizen Opinions

The design of Colloki allows multiple ways for users to express their opinions. For example, opinions can be typed text, video postings, or even audio postings. We will support doing so from mobile devices as well.

Opinions are organized in sections of interest called ‘Hot Topics’ (see figure below). Hot topics are usually a small number of significant issues that a local community is facing, such as ‘Upcoming Town Elections’, ‘Revisions to Comprehensive Plan’, and ‘Downtown Revitalization’. Community leaders have a significant role in defining these sections. We are organizing Colloki in a manner similar to the organizational logic of local civic groups who put a community leader in charge of an issue or issues that concerns them.

Browsing one of these topics is like browsing a subsection of the newspaper. Each section will have a different type of content depending on how it is defined and used by participating citizens.

With collaboration from the local town government, officials could use appropriate tags for communications and town council agendas so that information is automatically classified into the appropriate section of Colloki. Our aggregator will pick up content from local town and community group websites and listservs, and automatically classify it in Colloki.

User Contributed Content: Local Deliberation

Beyond the top level organization around ‘Hot Topics’, all online participants are allowed to comment on each other’s contributions, in a manner

similar to blog comments. This supports discussion and deliberation by citizens as a response to the postings of community leaders. We will develop an easy cross-referencing system, allowing people to link their comments to other stories/comments within the site.

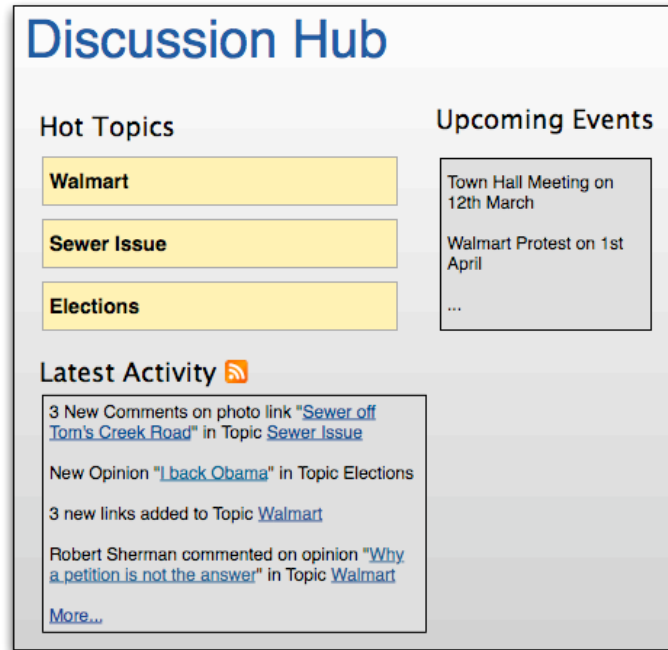


Figure 1. Opinions are organized in sections of interest called 'Hot Topics'

5 Reuse

Colloki is being designed with reuse in mind. The software would be built on open systems and would be available as an open source project when complete. Other local communities across the world would be able to host the software on their own servers or build over it. Colloki is being designed to use technology platforms that are easily available and economically viable.

6 Conclusion and Future Work

Our work on Colloki has just begun. We have designed the prototype and expect to have it in operation soon. We work closely in the Blacksburg and New River Valley areas with several civic organizations committed to help-

ing us in the design and evaluation. Colloki is a part of our vision for the Virtual Town Square (Kavanaugh et al. forthcoming), a central online space for local information from government and citizen sources and for conversations between government and citizen entities around topics of local interest.

The main challenges we face include making the system easy to use and getting people to use it regularly. By collaborating with local civic organizations and local town government staff and officials, we hope to have the initial support to get this service off the ground.

7 Acknowledgements

We would like to express our gratitude to our colleagues, Byoung Joon Kim and Candida Tauro who contributed to earlier versions of this paper. We would like to thank William Sanders, John Tedesco, and Dave Britt for their extended collaboration. We are grateful for support from the National Science Foundation Digital Government Program (IIS-0429274) that supported underlying research and development of ideas described in this paper.

References

- boyd, d. m. and N. B. Ellison 2007. Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication* 13(1): Article 11. Available at <http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html> (last accessed August 18, 2008)
- Furnas, G. W., C. Fake, L. von Ahn, J. Schachter, S. Golder, K. Fox, M. Davis, C. Marlow, and M. Naaman. 2006. Why Do Tagging System Work? *CHI 2006 Extended Abstracts on Human Factors in Computing Systems (Montreal, Canada, April 22-27)*, 36-39. New York: ACM.
- Kavanaugh, A., M. Pérez-Quñones, J. Tedesco, and W. Sanders. forthcoming. Toward a Virtual Town Square in the Era of Web 2.0. *Handbook of Internet Research*, eds. J. Hunsinger, L. Klastrop, and M. Allen. Surrey, UK: Springer.
- Kavanaugh, A., T. T. Zin, M. B. Rosson, J. M. Carroll, J. Schmitz, and B. J. Kim. 2007. Local Groups Online: Political Learning and Participation. *Journal of Computer Supported Cooperative Work* 16(September): 375-395.
- Lampe, C., N. Ellison, and C. Steinfield. 2006. A Face(book) in the Crowd: Social Searching vs. Social Browsing. *Proceedings of the 2006 20th Anniversary Conference on Computer Supported Cooperative Work (Banff, Alberta, Canada, November 4-8)*, 167-170. New York: ACM Press.
- Lenhart, A. and M. Madden. 2007. *Social Networking Websites and Teens: An Overview*. Washington, DC: Pew Internet & American Life Project. Available at http://www.pewinternet.org/ppf/r/198/report_display.asp (last accessed November 1, 2008)

- Marlow, C., M. Naaman, d. boyd, and M. Davis. 2006. HT06, Tagging Paper, Taxonomy, Flickr, Academic Article, to Read. *Proceedings of the Seventeenth Conference on Hypertext and Hypermedia (Odense, Denmark, August 22-25)*, 31-40. New York: ACM.
- Putnam, R. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.
- Snyder, C. 2003. *Paper Prototyping: The Fast and Easy Way to Design and Refine User Interfaces*. San Francisco: Morgan Kaufmann, Elsevier Science.
- Tepper, M. 2003. The Rise of Social Software. *netWorker* 7(3): 18-23.
- Verba, S. and N. H. Nie. 1972. *Participation in America: Political Democracy and Social Equality*. New York: Harper & Row.
- Verba, S., K. Schlozman, and H. Brady. 1995. *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge, MA: Harvard University Press.
- Veres, C. 2006. The Language of Folksonomies: What Tags Reveal About User Classification. *Natural Language Processing and Information Systems* 3999(2006): 58-69.

