

# Models of Government Blogging: Design Trade-offs in Civic Engagement

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## 1. Introduction

Some local government officials and staff have been experimenting with emerging technologies as part of a broad suite of media used for informing and communicating with their constituencies. In addition to the typical government website and, for some, email exchange with citizens, some town and municipal governments are using blogs, video streaming, podcasting, and Real Simple Syndication (RSS) to reach constituencies with updates and, in some cases, interaction and discussion between citizens and government.

The primary goal of our study was to place our case study findings of government blogging in the Town of Blacksburg, Virginia, in the context of current blog use by other local governments across the United States. Based on our review of local government blog use, we have attempted to characterize and model current government blog use based on trade-offs between the government's tendency to limit direct public feedback from citizens (i.e., by turning off the 'comments' feature) and the public's desire to know what other citizens are saying to government (i.e., by leaving the 'comments' feature on). We propose that our case study shows a viable alternative model to these two choices and accommodates the preferences of both government and the citizenry.

Some limitations of our study are that we have not attempted to examine the relationship between choice of model and factors such as the type of

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local government body, demographics of the blog constituency, or the content of blogs. Further, we have not investigated the actual usage of these government blogs, such as the number of hits received or the number of comments posted. While it would be very interesting to examine these factors and usage data, these investigations are beyond the scope of this paper. We are, nonetheless, examining these questions in our future research.

User interface design has a long history and many guidelines that blend intuition, experience and consideration of technical issues (Schneiderman, 1987). Design principles for online communities emphasize support for social interaction and cooperation (Smith and Kollock, 1996; Kollock, 1998). Kollock and Smith (1996, 109) note that “At the root of the problem of cooperation is the fact that there is often a tension between individual and collective rationality. That is to say that in many situations, behavior that is reasonable and justifiable for the individual leads to a poorer outcome for all. Such situations are termed *social dilemmas* and underline many of the most serious social problems we face.” In online communities, several conditions have been identified as paramount for cooperation (Axelrod, 1984; Ostrom, 1990); these include: the promotion of ongoing interaction; ability to identify other participants and their past behavior; and rules that match users’ needs and goals.

Design trade-offs occur when in the attempt to meet certain conditions (for example, the ability to identify other participants and their past behavior) the system inhibits desirable behavior (that is, the system works to decrease participation because many people do not want to have to register and log in to a password protected discussion forum). In the case of government blogging, authors generally either require citizens to login to leave a comment (in order to avoid anonymous flaming) or they shut off the comment option altogether (thereby losing the advantage of interactivity which often is part of the attraction for citizens to government blogs in the first place).

Design guidelines also emphasize the importance of mental models or metaphors that users bring to the experience of interacting with a computer system (Carroll et al. 1998; Norman, 2002). Mental models are constructed from users’ current knowledge and prior experience to understand new phenomena and practices. Therefore, a citizen visiting a government website might expect a cyber meeting space or discussion opportunity, as well as links to background documentation and records related to a given issue or policy debate. We suggest in this paper that government blogs can offer commentary and discussion opportunities, along with links to documentation, without having to host the citizens’ commentary on their own blog. This can be accomplished by linking the government blog to a separate

aggregator site, so that citizens can link to the government blog and make comments within their own blogs. This design option takes the burden of interactivity off government, while fostering discussion and open dialogue among citizens and government representatives. The identity of the citizen bloggers and commentators is often revealed in their blog author profiles, along with the record of their past blog entries. This helps participants determine the identity of other discussants.

## **2. Emerging Technologies: Blogs, RSS, Podcasting**

Emerging technologies are increasingly interactive, customizable, and user-centered. Blogs, real simple syndication (RSS) and podcasting are good examples of these capabilities. Fairly easy to set up and manage and typically available online at no charge, these emerging technologies are designed to allow users to produce multimedia content easily and cheaply (e.g., in blogs) and to acquire, manage and share information more easily than has been possible with earlier software (e.g., RSS and podcasting).

### **2.1 Really Simple Syndication (RSS) and Podcasting**

Web users typically need to visit websites to obtain desired information; a website with “Really Simple Syndication” (RSS), on the other hand, automatically delivers desired information to subscribers. RSS publishes lists of updates (called feeds) that notifies subscribers when new content has been posted to the website. Subscribers receive the RSS feeds through software called an RSS reader (e.g., Sage in Firefox, Internet Explorer version 7, Google Reader, Thunderbird mail reader, FeedReader, and BlogExpress) many of which are available at no charge online. RSS is similar to email in terms of automatically sending information. However, in the RSS environment subscribers do not need to provide any personal information such as private email address to the relevant website. Instead they copy & paste the address of an RSS feed into their RSS reader. An added benefit is that by using an RSS reader, a subscriber avoids spam emails since they did not use their email address to receive the information.

The term of “Podcasting” is a compound word that combines iPod and broadcasting (Crofts, Dilley, Fox, Retsema, & Williams, 2005). Podcasting enables Internet users to download audio files and play on a personal computer or a portable media player (such as the iPod or mp3 players). While RSS was originally intended to provide update notification of text-based

Web page contents (such as, blog entries or other Internet contents), audio-based files were later considered as well (Crofts et al., 2005). Podcasting allows listeners to listen to the audio files at any place with their audio players when convenient. Today politicians actively employ the podcasting to deliver their speeches to the public. For example, Governor of Virginia, Tim Kaine and Senator of Illinois, Barack Obama (<http://www.governor.virginia.gov/MediaRelations/MediaLibrary/podcast.cfm> and <http://obama.senate.gov/podcast/>, respectively) have embedded a series of audio files in reverse chronological order into their websites. Their speeches were recorded at local radio stations or in public meetings (such as a conference or town hall meeting).

We focus in this study on government blogging and discuss RSS and podcasting in the context of their use within such blogs. A full treatment of RSS and podcasting by government apart from blogs is beyond the scope of this paper.

## **2.2 Blogs**

Blogs are defined as frequently updated web pages in which dated entries are listed in reverse chronological order (Herring et al. 2005b). In many cases blog entries contain links to other blogs or websites and aim to discuss the contents of these linked blogs or simply to provide information about them (Bar-Ilan, 2005). Some blogs have no links at all and are merely personal diaries on the web, which is defined by Blood (2002) as nothing more than an outbreak of self-expression. We have argued that even personal diary-style blogs often have expressions of political opinions or concerns of collective interest. As such, they are a potential point of interaction among others interested in the same issue or problem (Kavanaugh et al., 2006a).

Blogs contain new capabilities which enable users (especially non technical users) to publish content and to communicate easily (Du & Wagner, 2006). For instance, most blogs include a list of other blogs that the author is interested in (called a “blogroll”). In addition, permalinks allow each entry to contain a unique URL and to be linked to a page outside a blog. A comment system in a blog allows bloggers to post a comment on each entry that is chronologically ordered. Furthermore, multimedia features such as video and audio components are often embedded as a podcast. As such, blogs can act as a platform or host for multimedia content, such as images, video, RSS and podcasting.

### 3. Who Is Blogging and Why

An estimated 39% (or about 57 million) American adult internet users reported in mid-2006 that they read blogs (Lenhart & Fox, 2006). This is a significant increase over the 17% who reported in the previous year that they read blogs (Rainie, 2005). Most bloggers write about their thoughts and experiences in a kind of online diary (Nardi et al. 2004; Rainie 2006; Lenhart 2006). They are declaring their presence and affirming that their own thoughts are worth hearing, according to Coleman (2005).

For a smaller number of blog writers and readers, however, Coleman notes that blogs are becoming an important channel of information and analysis for people who do not depend upon the traditional media's spin, censorship, and narrow agenda. Furthermore, according to Johnson and Kaye's survey (2004), three-quarters of bloggers in their study judged blogs as more credible than traditional sources since they believed that blogs provide more in-depth and thoughtful analysis than is available in traditional media, such as television, print and radio. The number of Internet users who have been seeking information through blogs has been steadily increasing.

The appeal of blogs to both writers and readers is the frequent short postings (Nardi et al. 2004). Blog writers post something on their mind in a brief informal style, expecting their entries to be read by others regularly. Blog readers expect to get updated thoughts or news from writers in a casual and personal style. Although readers often have the option to comment or reply to a writer's post, they are not obligated to (unlike email) and can check blogs of interest when it is convenient.

As more blogs have appeared, their style and content have diversified beyond the personal diary. Journalists, for example, use blogs as alternative sources of news and public opinion (Lasica, 2001). Blogs are employed by faculty and students in educational settings for knowledge sharing (Lin et al., 2006; Chang & Schallert, 2005; Divitini, Haugalokken, & Morken, 2005; Herring et al., 2005b; Huffaker, 2005). Most blogs are set up for use as an open system, however, some groups use blogs for internal collaboration just as they might use a password-protected website. Sauer and his colleagues (Sauer et al., 2005) used a blog for communication within their own research team and as a substitute-manual for daily laboratory work. By password-protecting their blog (Typepad Hosted Weblog Service, Six Apart Ltd, San Mateo CA, U.S.A., <http://www.typepad.com>) it was accessible only to the research group members.

Political blogs are emerging as a new means of communication among citizens and between citizens and politicians (Coleman, 2005). Today some

politicians in the US are competing with one another to use blogs for communicating with their constituencies (Coleman, 2005). In a survey of politically active Internet users in the US, the Institute for Politics, Democracy & the Internet (2004) surveyed online political citizens who were involved in online political activities such as sending/receiving/forwarding political e-mails, visiting/posting comments on political blogs, or participating in a political chat room. Twenty five percent of the online political citizens in the survey reported that they viewed or posted comments on political blogs. According to Drezner (2004), the agglomeration of blogs (or 'blogosphere') functions as a kind of public forum for discussion and debate which affects traditional media and politics.

Some researchers have made an effort to categorize types of blogs according to various characteristics. For instance, Krishnamurthy (2002) characterized blogs according to two dimensions: personal vs. topical, and individual vs. community. Herring comprehensively investigated the characteristics of blogs by investigating a blog author, purpose, structure, and post (Herring et al., 2005b). Good (2005) categorized blogs based on 'blogging patterns' based on contributors and blog aggregators: 1) multiple users posting entries to a single blog, 2) multiple blogs aggregated onto a single blog, and 3) multiple blogs without aggregation.

In our own survey of local community blogs, we developed a matrix for categorizing blogs based on three main features: 1) the type(s) of contributors (e.g., single author, multiple authors, or open to the public); 2) the focus of the content (e.g., specific topic or place, open-ended discussion); and 3) the style of the blogsite, such as an aggregation of multiple blogs, as in an aggregator site, as opposed to individual or community blogs (Kavanaugh et al., 2006a). In this paper we attempt to categorize local government blogs based specifically on the implications for citizen participation in discussion and deliberation conducting a review of blog activity by local government across the US and comparing these findings with our case study of blogging by the local government of Blacksburg.

## **4. Methodology**

### **4.1 Review of Local Government Blogs**

We investigated current use of blogs by local government in the US (such as a mayor, a commissioner or committee, or a town manager) through a

combination of search techniques and procedures followed by individual site content analysis.

We searched for local government blogs between July and October 2006, and judged whether what we found was a blog using Herring's (2005a) definition: frequently updated web pages in which dated entries are listed in reverse chronological order. If needed, we asked authors of blogs to clarify whether they were a government official or representative. We did not include a personal blog even if it contained political content.

We used Google to search for local government blogs using key words such as 'local', 'government', and 'blog'. However, approximately 232,000,000 hits returned with individual's blogs or with news and information associated with either 'government' or 'blog'. We then employed Google US Government Search ([www.google.com/ig/usgov](http://www.google.com/ig/usgov)) that searches contents posted on federal, state, and local government websites. Next, we examined the resulting blogs (e.g., a mayor's blog, governor's blog, town manager's blog) to check their list of links (called a blogroll) that provides links from their blog to their favorite blogs (some of which might be by other local governments). We also used blog search engines (shown in Table 1) that were designed to search blogs. These blog search engines check blogs from all over the web regardless of the blog search engine's affiliation.

**Table 1. Examples of blog search engines and URLs**

Blog search engine	URL
Blog Search	<a href="http://search.blogger.com/blogsearch?ui=blg">http://search.blogger.com/blogsearch?ui=blg</a>
Google Blog Search	<a href="http://blogsearch.google.com/">http://blogsearch.google.com/</a>
Blogs, RSS search engines	<a href="http://www.faganfinder.com/blogs/">http://www.faganfinder.com/blogs/</a>
Technorati Blog Finder	<a href="http://www.technorati.com/blogs/">http://www.technorati.com/blogs/</a>

The blog search engines returned a considerable number of sites with entry or blog titles that were not clear whether they were blogs or websites. So, we considered the URL name as a critical factor in distinguishing between a blog and a website; for example, [County Name].blog.com or [Town Task Force Meeting].blog.com. We also searched each of the official state/city/county governmental website to look for an affiliated blog. Some of the official websites advertised their blogs on the main page of the official website, which made the blogs easy to discover; however, most blog links on the official websites were buried at a deep sub-level. We also

searched blogs on the basis of a list of localities (e.g., city, town or county) that had received ‘most innovative’ or ‘best website’ awards.

We analyzed the blogs that resulted from our search by considering two major factors: blog comments permitted or blog comments prohibited. We also categorized their level of emerging technology use, considering the extent and diversity of new technologies being used. For example, in addition to location and author, we categorized blogs based on characteristics such as activity, video/audio podcasting, and RSS feeds.

#### 4.2 Method for Case Study: Town of Blacksburg Blog

We studied the development, implementation and use of the task force blog through a mixture of participant observation, interviews and questionnaires. As the origins of the blog emerged from collaborative explorations among the town, the BEV and the authors, we consider that the blog developed through a participatory design process. That is, the target users (i.e., the town officials and interested citizens) were involved from the outset in determining what technologies to consider, how to manage the application, and the details of its actual use. In summarizing the task force blog case study, we describe the participants, the blog management and use, our observations and interviews, and the ‘blog use/satisfaction’ questionnaire we administered to the members of the task force.

The authors participated in almost all of the weekly meetings as observers. We designed a short questionnaire to ask the task force members for feedback about the blog. The questionnaire consisted of open-ended and closed questions. In the open-ended questions we asked participants what they liked most and least about the blog. The closed questions were designed to rate user’s satisfaction in terms of ‘easy to read’, ‘easy to post’, ‘easy to navigate’ and ‘comfortable to communicate’. Those four items were asked by using 5 point Likert type scale (Figure 1).

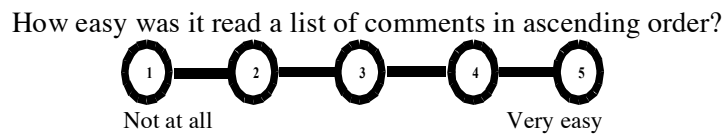


Figure 1. Sample of closed questions

At the end of the questionnaire, we asked a probing question (i.e., Is there anything else you would like to tell us about the blog?) to gather more specific data regarding their answers or to clarify their answers. We distributed the questionnaire to task force members at one of the regular meetings and asked them to complete it before the meeting ended. We informed them that their responses would remain anonymous and confidential.

We analyzed our observations using a critical incident technique (CIT). We observed and identified blogging behavior of task force members and categorized behavior into four main areas: 1) interaction between offline and online meetings, 2) encouragement of feedback, 3) public involvement, and 4) connection. Recommendations to enhance the blog were included as well. These categories were organized into a table which consisted of six columns labeled Category, Condition, Actions, People, Place, and Recommendation called a CCAPPR table (Kim et al. 2006; Kim et al. 2007).

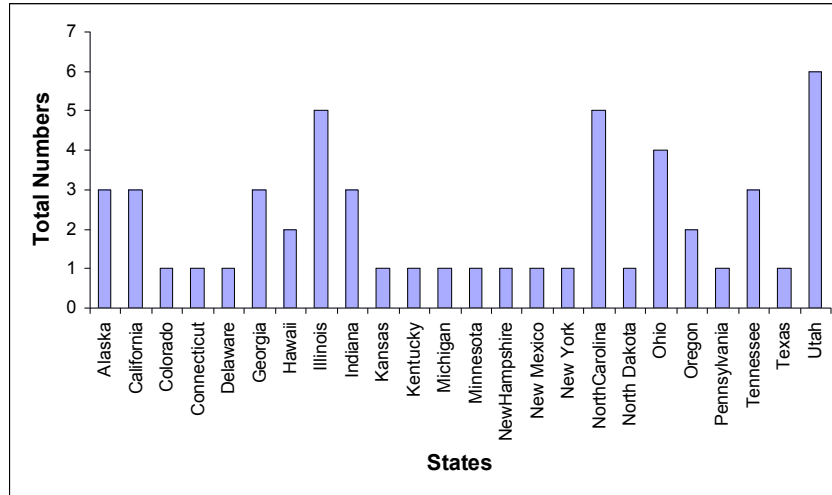
## **5. Results**

### **5.1 Review of US Local Government Blogs**

We found a total fifty-two blogs by either state or local government from twenty-five different states in the US (Figure 2). In the next section we summarize the characteristics of these blogs according to location, author, activity, multimedia, public comment, RSS, and links to official websites.

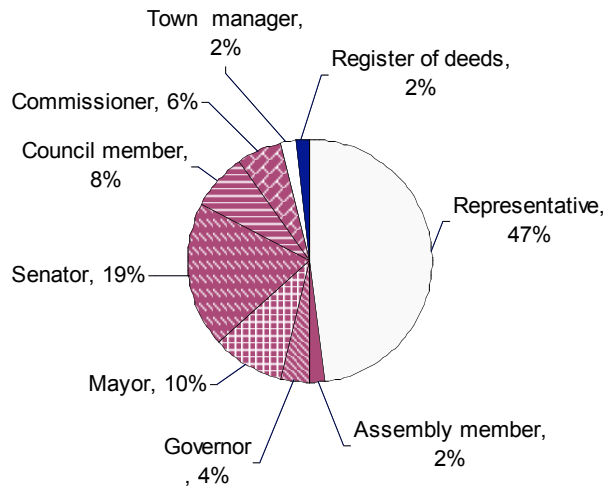
#### ***Location and Author Profile***

Among the 25 states with government blogs, we found that a few states (specifically, Utah, North Carolina, Minnesota, and Illinois) had more than five government blogs, which was relatively high compared to other states. Thirteen states had only one government blog.



**Figure 2. Blogs by Government Officials in the US**

We identified blog authors through their profiles on their blogs (Figure 3). The majority were working for their local or district governments. The biggest proportion (almost half of the blogs, 47%) belonged to members of the US House of Representatives. Another 30% was comprised of local officials of various types: mayors, council members, commissioners, town managers, assembly members and registrars. At the national level, there were US Senators (19%), from a few governors (4%),



**Figure 3. Profile of Blog Authors**

### ***Multimedia, RSS and Podcasting***

A few blogs employed multimedia technology. For example, the governor of California answered questions from the public through webcasting a live video Internet forum. A moderator interviewed the governor, based on questions submitted by the public. Citizens can also have a chance to ask questions simultaneously through a chat feature on the official website (<http://gov.ca.gov>). All videos were archived for public review. A representative in Texas embedded video clips (such as, his campaign commercial) that were published through the media company, YouTube. A representative in Minnesota embedded his voice messages that were recorded at a local radio studio and provided a quick link to allow the public to easily subscribe to the podcast. Only three government blogs incorporated video files and four blogs employed audio files. None of them used both audio and video files on their blogs.

Most blogs provided RSS feeds while eleven of them (21%) did not. For example, Wake Forest (North Carolina) Town Manager Mark Williams' Weblog (<http://www.wakeforestnc.gov/townmanagerblog.aspx>) contained a series of dated entries in reverse chronological order with archives. His blog was fairly typical; however, RSS feeds were not offered. We observed that most blogs with RSS feeds were created through dedicated blog hosting services (or blog software), such as WordPress, Blogger, or LiveJournal. The blog software enables a blog to publish RSS feeds. However some blogs, which were not built through the blog software, still contained the RSS feature. For example, in 2002 a representative in Minnesota created his blog apart from dedicated hosting services and ran his blog (<http://www.raycox.net>) with no RSS feature. In 2003 he added the RSS feature to his blog independent from the hosting service. While many government officials may not be aware of this feature, some have taken the initiative to make it available if it is not already offered by the blog hosting service. Having an RSS feed makes it possible for interested readers to receive blog writers' postings, as they can subscribe to the RSS feed and be notified whenever new content is posted.

### ***Links and Public Comments***

Most local government websites did not contain links to local officials' blogs. Even if a government website had links to the blogs, URLs of blogs were located in a deeper level of the website. Only a few websites made an officials' blog (e.g., <http://www.eroundlake.com>) prominent by putting the blog URL on the first webpage. Just over half (52%) of blogs had no link to official websites.

Close to a third (29%) of blogs did not allow citizens to post comments to any entry. Only two percent (2%) enabled citizens to make a comment and only to selected entries. In other words, an author configured a comment feature of a blog; thus, some entries that were selected by the author became open to comments. However, the majority of entries were closed to comments.

### ***Design Trade-offs in Civic Participation***

We summarized the citizen communication capabilities of blogs by the presence of three features; links, comments, and communication support (Table 2). These features constitute trade-offs in the design of the blog that either minimize or optimize citizen interaction.

**Table 2. Communication Capabilities of Government Blogs**

		Without links to official website		With links to official website	
		Support features	No support features	Support Features	No support features
Open system	Even anonymous	13 blogs	n/a	13 blogs	n/a
	Only login	2 blogs	n/a	1 blog	n/a
Semi-open system	Even anonymous	4 blogs	n/a	3 blogs	n/a
	Only login	1 blog	n/a	n/a	n/a
Closed system		6 blogs	1 item	5 blogs	3 blogs

As noted above, we categorized blogs into two groups: a blog with or without a link to an official website. Second, if a blog allowed citizens to make a post without any restrictions, we referred to the blog as an open system. A semi-open system referred to a blog that enabled the owner/author to read all comments before they appeared on their blog. Such a preview process allowed authors to approve or reject comments. Further, we investigated whether a blog allowed citizens to make any-

ymous comments versus registered (non-anonymous) comments. A closed system refers to a blog that does not allow citizens to post anonymous comments. Third, a typical blog contains a set of features such as permalinks, trackbacks, and RSS to support communication with other bloggers. A few of the local government officials' blogs that we found did not support any of these features. We referred to them as blogs without communication support features.

- A quarter (25%) of blogs fully opened their blogs to the public by allowing even anonymous comments to all entries without login. In addition, they contained the features to enhance communication and a link to a government website.
- The majority (71%) of blogs enabled citizens to make a comment partially or fully regardless of availability of links and features.
- About 2% of blogs prohibited citizens from posting a comment with lack of communication support or links to local government websites.

By way of comparison we turn next to the case study of the Town of Blacksburg and its Town Plan Revision Task Force blog.

## **5.2 Case Study of Blacksburg Task Force Blog**

In this section, we summarize the findings from our participant observation, informal interviews with task force members, and the written questionnaire completed by task force members.

### ***Participant Observation***

In our ongoing discussions as part of the larger study of local online deliberation, the authors met with the director of technology at the Town of Blacksburg (ToB) and the director of the BEV to consider ways to facilitate citizen participation in government. Among the technologies we discussed were public forums and blogs. Online forums typically require that someone moderate the comments that are submitted by the public and enforce rules of engagement (for example, e-democracy projects in Minnesota and the United Kingdom follow this format). We were looking for a format that was less formal, more self-organizing and did not require passwords and log-ins that might discourage participation among less politically active citizens.

As it happened, at this time (Spring 2006), the town was just beginning a process of revising the comprehensive plan. A citizen-government task force had been established and the group was planning its work and ways to involve public comment and participation. More serendipitously, the di-

rector of the BEV was also a member of the task force. He liked the idea of a blog and offered to host one on a BEV server that could be linked directly to the ToB website. The idea was to use this occasion of the comprehensive plan revisions and the work of the task force as a way to explore the value of blog technology for this purpose. Further, we collectively were interested in studying the use of blogging for this type of government process, and in learning how the technology could support and foster government-citizen interaction.

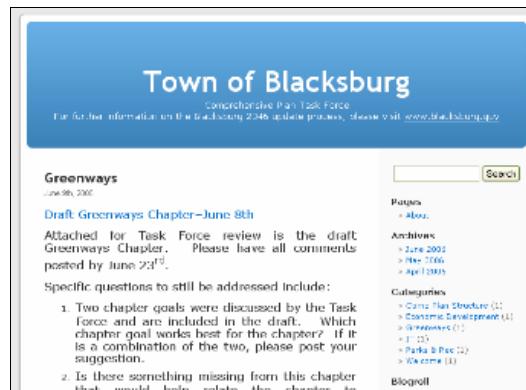


Figure 4. Screenshot of the blog of ToB Task Force

The town agreed that a blog would be the easiest and simplest technology to set up and manage, and would still accommodate some kind of citizen participation and interaction. BEV set up the blog (shown in Figure 4) in April 2006 on a secure BEV server (<https://secure.bev.net/townplan>). As much as the town wanted to encourage citizen discussion and participation, like many other government entities they were a little uncomfortable about hosting public comments directly on their blog. We emphasized that it was not necessary – and possibly not even desirable -- for ToB to do this. Rather, with the agreement of the town and BEV, we contacted the local blog aggregator site manager who linked the ToB blog to the aggregator site (<http://www.swvanews.com>), which retrieves syndicated Web content by a web feed such as, RSS. This linkage allowed interested citizens to view the ToB task force blog, link to it and discuss its contents within their own blogs. In this way, we imagined citizens could initiate discussion among themselves about the revisions that the task force was proposing to the comprehensive plan and to use traditional channels, such as email, letters, and telephone to offer feedback directly to the task force or other officials in town government.

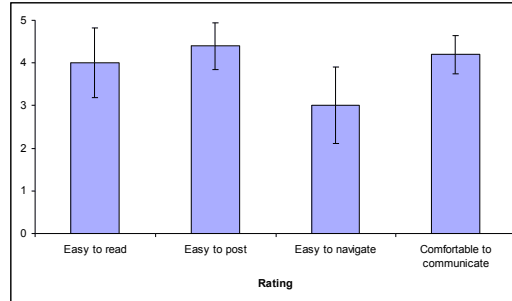
The URL of the task force blog was noted on all agendas distributed at weekly task force meetings and a link to the blog was embedded in the Town of Blacksburg website (<http://www.blacksburg.gov>). Only task force members could actually write content on the blog, using a log-in and password. The task force members used the blog for communications among themselves, regarding suggested revisions and rationale for changes to the town plan. While citizens could not post comments directly on the blog, they could read all of the commentary among task force members, and see linked documents, ongoing revisions, and draft entries regarding town plan revisions.

The task force consisted of nine members who were either representatives of town government or citizen volunteers. The task force met weekly (with a few exceptions) throughout the spring and summer 2006 (as of Fall 2006, intermittent meetings were ongoing). All meetings were open to the public and were videotaped for subsequent re-broadcast and public access at the town hall and online. Any citizen could raise concerns or make suggestions at the face-to-face meetings, as well as by email, letter or phone call to the task force or other town officials.

Several panel members, including the BEV director, assisted others in learning how to log in and use the blog. They provided extra help (including home visits) to one member who was least comfortable with the blog, but apart from initial log-in, this individual never really used it. Among the other eight members, however, the blog was actively utilized for internal communication that was publicly accessible to readers. They extended their discussions to the blog by posting their comments and they brought the developed discussion issues back to the next face-to-face meeting. Furthermore, the comments helped some task force members who were absent catch up on items from the meeting they missed.

### ***Task Force Questionnaire***

For the closed questions regarding blog usability, participants generally showed high satisfaction (mean = 3.9; SD=0.6) with the blog interface (Figure 5). However, some participants reported that they got lost and did not know how to get back to the first main page. They expected such navigation tools as 'Home' and 'Back', which most websites typically feature.



**Figure 5. Mean and SD scores for each question**

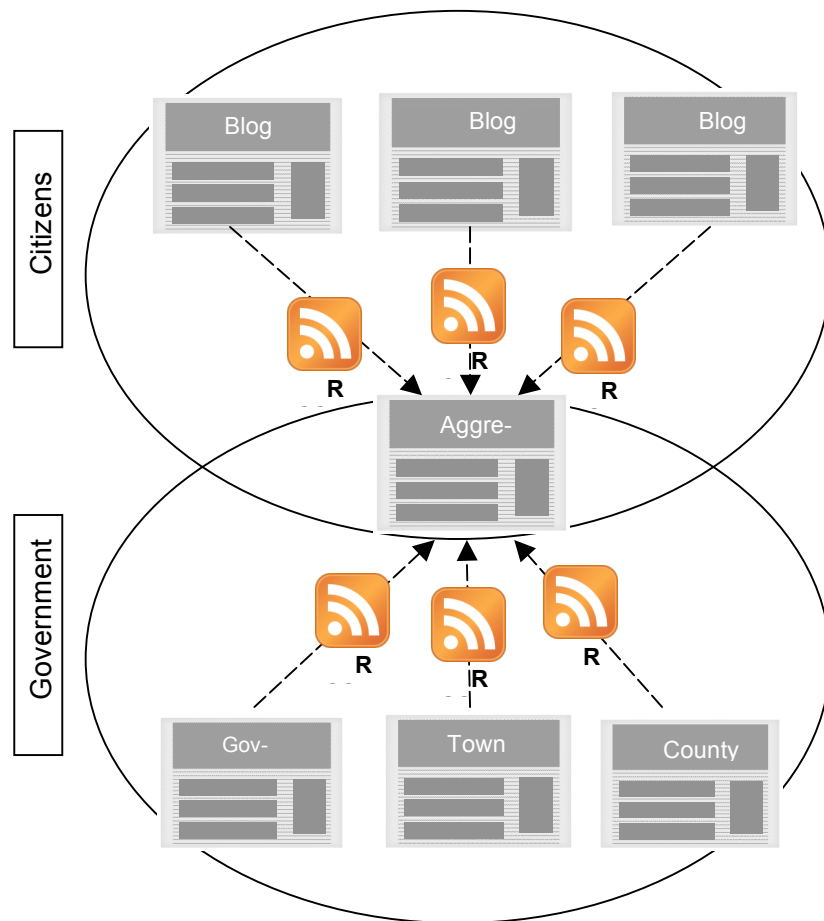
One respondent made a suggestion to improve the blog interface in order to facilitate editing of documents. She said it would have been helpful to have two split windows while she was reading reference documents attached on the blog and simultaneously making a comment to the documents; one window could display the original documents and the other could be a pop-up window to post comments. Thus, users would be able to see the relevant documents at the same time that they were writing comments on the blog.

According to their comments on the open-ended questions, task force respondents were generally in favor of allowing the public to post comments to task force members' entries. One of the reasons they liked the blog, they reported, was because it was an open system where they can compare others' comments with their own thoughts. They were hearing from other task force members on the blog, of course, but their questionnaire responses indicated that they were also willing to hear directly from citizens even if their thoughts were in opposition or of a cynical nature.

## **6. Discussion: Models of local government blogging**

We have presented three basic models of local government blogging that address the participation of citizens in discussion and deliberation. These are, public comments permitted, public comments prohibited, and public comments possible through linkage to a blog aggregator site. In principal, any government blog that does not accept public comments directly could be discussed on other blogs by citizens. However, by linking their blog to an aggregator site, a government indicates that it explicitly encourages feedback from citizens, albeit indirectly. This approach of linking to an aggregator site, allows officials who do not want to expose themselves (or

the rest of the general public) to insulting comments on their blogs to encourage communication and participation from citizens. We show in Figure 8 how this model might be diagrammed.



**Figure 8. Citizen Participation through Local Blog Aggregator**

Figure 8 displays a systematic view of the blogsphere at the local level. Town of Blacksburg website, Town of Blacksburg Task Force blog, and Montgomery County website were considered as an example to illustrate a model. In our model, all three websites produce RSS feeds that are added to a RSS aggregator site such as South West Virginia Aggregator Website (<http://www.swvanews.com>). Citizens can host their blogs and subscribe to the aggregator site.

The RSS aggregator site provides advantages to both citizens and government. First of all, the RSS aggregator site repeatedly accesses the RSS feeds of the websites and organizes the results. Instead of repeatedly visiting every single website to check for updates, citizens are able to see all the latest content updated in one place, the aggregator site.

When citizens find an interesting entry on the aggregator site, people are able to make a comment to the entry on their blogs or other places (e.g., blogs by local public groups) instead of a government website or blog. These blogs/websites where people make a comment are linked back to the aggregator site by subscribing to their RSS feeds. The aggregator site constantly collects and displays the comments from the subscribed sites.

Although a blog is designed to enhance communication, most current blogs by government are not fully taking advantage of it and avoid public comments on their blogs. Thus we suggested a model based on the Town of Blacksburg Task Force that accommodates the needs of both government (for security) and the public (for participation) through linkage to a local aggregator site.

## 7. Acknowledgement

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