IPCE Institute for Policy and Civic Engagement

SOCIAL MEDIA, CIVIC ENGAGEMENT, AND TECHNOLOGY USE IN LOCAL GOVERNMENT AGENCIES: FINDINGS FROM A NATIONAL SURVEY

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Acknowledgements

Institute for Policy and Civic Engagement (IPCE)

Mission

The Institute for Policy and Civic Engagement (IPCE) focuses on transforming democracy by creating a more fully engaged citizenry with more effective leaders. As a catalyst for learning and action, the Institute creates opportunities for scholars, concerned citizens, students, and government officials to actively participate in social discourse, research, and educational programs on policy issues and social trends.

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Table of Contents

List of Tables

List of Figures

Executive Summary

This report presents findings from a 2012 national survey of local governments on public participation, technology and social media use, and eGovernment, as part of a long-term research study interested in understanding the relationships between technology and civic engagement in local governments sponsored by the Institute for Policy and Civic Engagement (IPCE) at the University of Illinois at Chicago.

This report draws from the statistical analysis of survey data and is organized into three sections: participation, utilization of technology and social media, and eGovernment. Description of these sections as well as key findings and discussions in each section are summarized below.

I. Participation:

Public participation broadly refers to the process in which citizens and external stakeholders take part in agency decisions. Local governments may benefit from receiving ideas and expertise provided through participation by the public. In addition, public participation may help to ensure that public policies reflect the public's needs and concerns.

This section explores the mechanisms by which the public participates in local government agency decision and policy-making, and the regularity of such participation. The analyses are organized into three groups: 1) frequency of public engagement in different operational and decision-making contexts; 2) frequency of participation by citizens and various other stakeholders; and 3) new or innovative ways in which the organizations engage residents and citizens in city government.

Key findings and observations:

- In decision and policy-making contexts, members of the public tend to participate with greatest frequency by giving feedback on service quality, followed by providing input on service priorities and long range plans.

- Almost half of all public managers state that individual citizens participate 'often' or 'very often' in local government decision and policy making.

- The individuals or groups that participate most frequently in local government decision and policy-making are internal department staff, the Mayor's office, and other city departments, followed by individual citizens, neighborhood associations,

and interest groups. Thus other government organizations more frequently participate in local government decision and policy-making, as compared to the general public.

II. Utilization of Technology and Social Media:

The use of information and communication technologies in public organizations holds the potential to improve government transparency and increase public participation by providing effective and efficient means of disclosing information to citizens and organizations about the processes, structures, and products of government, as well as enabling the public to interact with public organizations in a more convenient way. In addition, new online applications provide the means for stakeholders and government to communicate through two-way mechanisms and record interactions.

This section of the report focuses on technology use in local government organizations and presents findings from the analyses on the extent to which local governments are using social media, software, and Intranet, the purposes that these tools serve, and manager perceptions about the outcomes of using information and communication technologies, as well as how technology-related issues are resolved in the organizations.

Key findings and observations:

- The most common technologies used by local government managers are e-mail (99%), online newsletters (82%), web surveys or polls (69%), and text messaging (66%).

- Most departments have adopted social media technologies such as Facebook (91%) and Twitter (74%) while a few use electronic polling during face-to-face meetings (12%) and wikis (8%).

- There is a statistically significant difference in the frequency of social media use across department types in local governments. Mayor's offices and parks and recreation departments reporting significantly more social media use than community development and finance departments.

- Most local governments have developed guidance for acceptable use of social media and agency policies.

- Few local government departments contract out to external service providers for maintaining and updating department websites and eGovernment services, relying

more on a designated person within the department and/or a separate information technology department for these tasks.

- Nearly all respondents report that computer and/or Internet-related problems are usually solved within a few hours or within a day.

- Geographical Information System software is the most commonly used Open Source Software (OSS) in local governments – reported by 80% of respondents – followed by Internet browser software (49.7%) and word processing software (40.3%).

- The majority of public managers (71%) disagree "staff in my office are resistant to change related to technology"; however, with nearly the same intensity, they also believe that their agencies are concerned about managing (storing and accessing) the growing amount of data collected through utilizing technology.

- Improving information dissemination to external stakeholders and citizens and increasing access to government services are the two greatest perceived impacts of electronic information and communication technologies. Negative impacts are less frequently reported by public managers.

III. eGovernment:

eGovernment is an umbrella term for the use of information and communications technologies across a broad range of government activities such as electronic service delivery, integration and information provision, the support and improvement of public policies and government operations, and citizen engagement. The origins of the term can be traced to scholarship in public administration, public policy and public management that emphasized potential efficiency gains of the use of technology in delivering services. Hence, the focus, or unit of analysis of this literature typically is government and its relationships with other parts of government, with civil society, and with individual citizens (Robbin et al. 2004).

eGovernment can allow for easier facilitation of government operations, better disbursement of information and services, and a greater degree of communication and interaction between government and its citizens and other stakeholders. As a result of making government more accessible to the public through this format, overall government service delivery, policy actions, and decision making can be more strongly influenced by citizens and external stakeholders can be increased.

This section captures and discusses the findings on managers' perceptions of their organization websites' ease of use, efficacy, and informational content, as well as the extent of their online service offerings and use by the public.

Key findings and observations:

- Managers generally have positive perceptions of city website quality; however, they also tend to think that there should be more information on the website that is relevant to citizens and external stakeholders.

- The majority of respondents reported that their organization's website contained "about the right amount" of information in every aspect listed.

- The most commonly offered online services reported by local government managers are online requests for services that the department is responsible for delivering (70%) and online completion and submission of job applications (66%).

About the Local Survey

For the 2012 IPCE City Survey, the research team used the sample developed in the 2010 IPCE City Survey of program managers and agency leaders in local governments nationwide. In the fall of 2011, the researchers conducted web searches and called local governments to determine whether local public officials who had participated to 2010 survey were in the same position. Students updated all contact information when the individual in the position had changed and confirmed information for individuals who remained in the same position.

The survey was administered to a randomly selected sample of agencies in local governments where the government is of sufficient size and capacity to purchase and use technology for civic engagement. The survey was administered to individuals working in five positions: City Manager/City Administrator, Director of Community and/or Economic Development, Finance Director, Director of Parks and Recreation, and Deputy Police Chief. The survey was administered online using Sawtooth Software® from February 21, 2012 to May 5, 2012.

Below we describe the population and sampling procedures for the local government surveys.

Local Government Survey

The survey focuses on local government managers in five positions that have potential for high levels of citizen engagement. These five individuals in a sample of 500 cities were contacted and invited to participate in the study, for a sample size of 2500 municipal officials.

1. City Manager/City Administrator
2. Director of Community and/or Economic Development
3. Finance Director
4. Director of Parks and Recreation
5. Deputy Police Chief

This is a longitudinal study and the 2010 IPCE survey sample that already includes the contact information of 2,500 municipal officials in these five positions. The research team used agency websites to confirm the contact information of the municipal officials. When information was not available online, the researchers called the municipal offices to collect and confirm institutional, administrative and demographic information of the municipal officials in the five positions.

Introduction

Conceptually, we adopt a socio-technical approach to this study in which civic engagement related decisions and activities of government are determined by the confluence of three general factors: technology, external contextual factors, and internal organization and management. Tornatzky and Fleisher (1990) depict a general model of socio-technological innovation in which technological, environmental, and organizational factors create conjointly the context within which decisions about adoption and implementation take place.

Goal

This project is designed to provide several levels of information and knowledge about civic engagement, social media, and technology-facilitated civic engagement in local government agencies in the United States. In 2010, we conducted a similar study, which provided a baseline descriptive understanding of the status of technology for civic engagement in government agencies. This second survey will enable researchers to track how technology use is changing in local governments. Additionally, we take a more focused approach in the 2012 study at investigating the role of social media in local government. The project provides navigable dataset that includes survey data, website data, and other institutional data (e.g. census data) that can be made available to partners or other groups for further analysis.

Part I. <u>Participation</u>

This section explores the frequency of participation by different groups in agency decision and policy-making as well as the frequency of public engagement in different settings and the ways in which members of the public interact with the organization.

1.1   In decision and policy-making contexts, members of the public tend to participate with greatest frequency by giving feedback on service quality, followed by providing input on service priorities, followed by giving input on long range plans.

In order to determine the contexts in and frequency with which the public interacts with local governments, we ask respondents to indicate how often members of the public contribute to various decision and policy-making contexts. Such contexts include input on long range plans, feedback on service quality, feedback on department decisions, and input on employee conduct. We ask respondents to indicate if the public interacts in each of these contexts 'very often', 'often', 'sometimes', 'rarely', or 'never'. Figure 1 illustrates the proportion of very often and often responses as compared to participation that occurs sometimes, rarely, and never.

Figure 1 shows where public participation is most prevalent, noting the areas where the public 'very often' or 'often' participates in decision-making. Figure 1 indicates that the total frequency for 'very often' and 'often' responses for members of the public contributing feedback on service quality is higher than any of the other listed contexts. Nearly half of the respondents indicate that the public participates by giving input on service priorities (49.5%) and providing input in long range plans (49.2%). In comparison, we find a lower percentage of 'very often' and 'often' responses for public contribution in the area of giving input on improving department management and operations, totaling at 22.9%.

Figure 1. Percentage of 'very often' and "often' responses compared to other responses for public participation in various decision and policy- making contexts
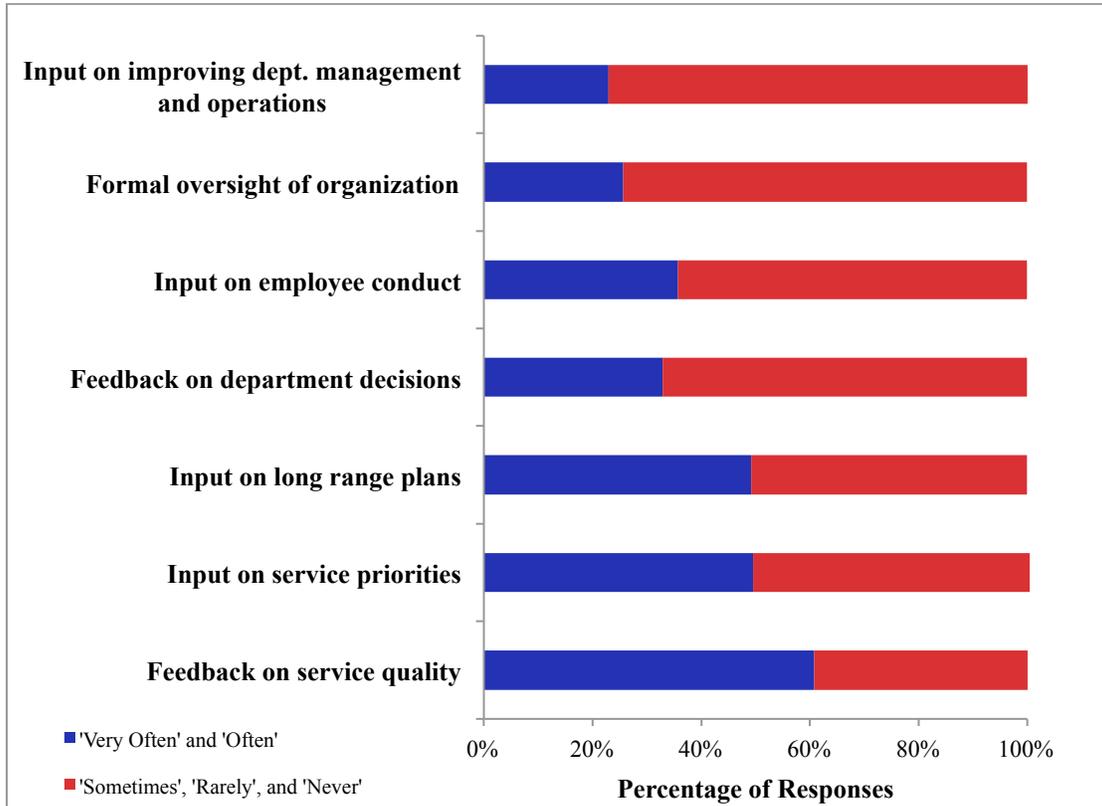
1.2 *Among all stakeholder groups, internal department staff, other city departments, and the Mayor's office participate most frequently in agency decision and policy-making.*

To assess the frequency of public participation by different groups we ask respondents to indicate how often various stakeholder groups and citizens participate in agency decision and policy-making in their organizations. Stakeholders include organizations and individuals outside the department such as local community organizations, nonprofit or educational groups, or other government agencies. We ask respondents to indicate if citizens and stakeholder groups interact in each of these contexts 'very often', 'often', 'sometimes', 'rarely', or 'never'. Figure 2 illustrates the proportion of responses that were 'very often' and 'often' as compared to participation that occurs 'sometimes', 'rarely', and 'never'. For example, 89.5% of respondents indicate that members of the internal department staff participate in agency decision and policy-making 'very often' and 'often'. The next most frequent participants in decision-making are other city departments (69.1%) and the Mayor's office (62.7%). In comparison, 24.7% of respondents indicate that urban civic groups participate in agency decision and policy-making

'very often' and 'often' and only 9.8% report participation by "religious groups", thus indicating a stronger tendency toward internal decision-making in comparison to engaging public participation in local government decision and policy-making.

Figure 2. Frequency of participation in agency decision and policy-making by citizens and stakeholder groups
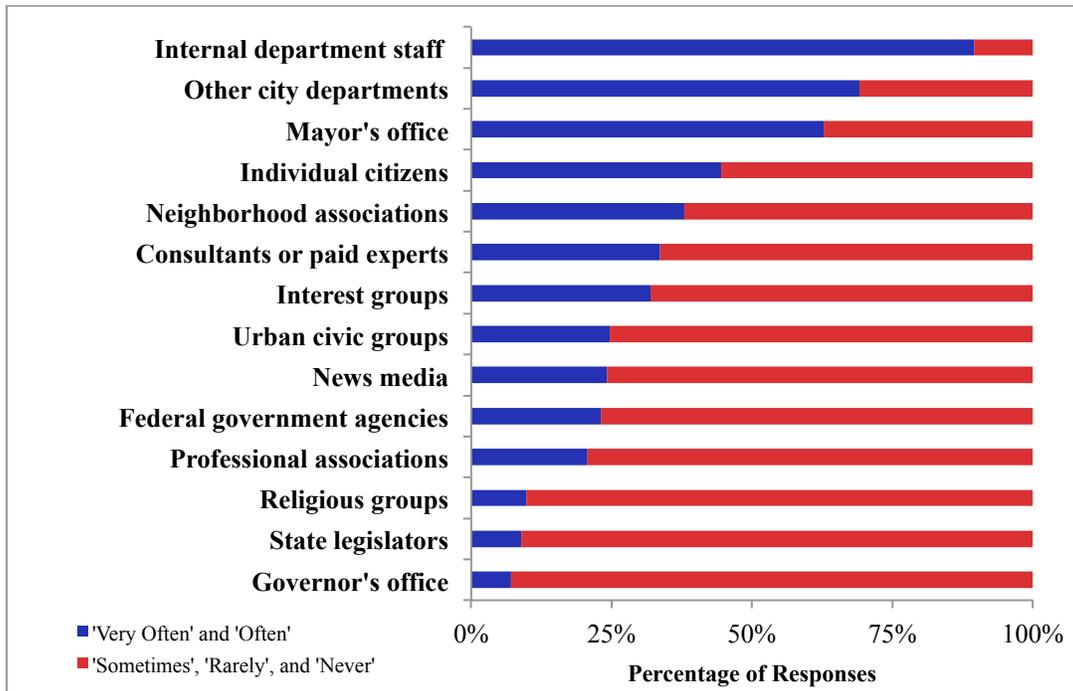
1.3   *Almost half of all public managers state that individual citizens participate 'often' or 'very often' in local government decision and policy making.*

The survey asks local government managers if their organization is legally required to include citizen input in policy-making activities (see Table 1). As noted in Table 1, of the 807 who responded to this item, 42% indicate that they are legally required to include citizen input in policy-making, while 11% indicate that they did not know if there was a legal requirement or not. Among the 372 who reported that there is a legal requirement to include citizen input in policy-making, 44% indicate that they believe that the requirement was a federal law, while 78% report that it was a requirement based on state law.

Table 1. Legal requirements to include citizen input in policy-making

	No	Yes	Don't Know	Total
Is your organization legally required to include citizen input in policy-making activities?	376 (47%)	342 (42%)	89 (11%)	807
Is the requirement based on federal law?	107 (38%)	125 (44%)	52 (18%)	284
Is the requirement based on state law?	42 (13%)	260 (78%)	30 (9%)	332

Part II. <u>Utilization of Technology and Social Media</u>

In this section, we present findings on the use of different technologies for public participation and online provision of services, manager perceptions of technology and their opinions about its effects, the use of social media in the local government context, and how the frequency of use differs across departments.

Technologies used by local government managers

The survey asks respondents if their organizations use any of the following technologies for any purpose: blogs, online chats, discussion forums, e-mail, online newsletters, audio webcasts, text messaging, really simply syndication (RSS feeds), video sharing tools (e.g. YouTube), web surveys or polls, wikis, electronic polling during face-to-face meetings, document collaboration tools (e.g. Google Docs), work coordination tools (e.g. Google Calendar, MS Project), File sharing tools (e.g. DropBox), and voice over internet protocol (VOIP). The results are presented in Table 2. The most common technology used by local government managers is e-mail, with 99% of respondents reporting that they use e-mail. The second most common technology is online newsletters (82%) followed by web surveys or polls (69%) and text messaging (66%).

Local government managers report less use of technologies that are more interactive, or require two-way communications between public managers and citizens. For example, around one-third report using blogs, 27% report using discussion forums, 14% use online chats, and only 8% of respondents report using wikis. Table 2 indicates that local governments are using technologies capable of disseminating information (e.g. online newsletters) more frequently than technologies capable of engaging in "conversations" with citizen (e.g. blogs, discussion forums, online chats).

Table 2. To the best of your knowledge does your organization use any of these other technologies for any purpose?

	% Yes	**Yes**	**No**	**Don't Know**	**Total**
E-mail	99%	792	5	5	802
Online newsletters	82%	645	127	17	789
Web surveys or polls	69%	542	189	49	780

	% Yes	Yes	No	Don't Know	Total
Text messaging	66%	517	211	52	780
Work coordination tools (e.g. Google Calendar, MS Project)	47%	359	291	122	772
Video sharing tools (e.g. YouTube)	46%	354	310	104	768
Audio webcasts	44%	341	349	80	770
File sharing tools (e.g. DropBox)	35%	272	337	164	773
Blogs	32%	244	434	95	773
Voice over IP (e.g. Skype)	31%	234	377	152	763
Discussion forums	27%	210	442	114	766
Really simple syndication (RSS feeds)	26%	196	327	233	756
Document collaboration tools (e.g. Google Docs)	20%	156	415	193	764
Online chats	14%	110	537	114	761
Electronic polling during face-to-face meetings	12%	94	538	124	756
Wikis	8%	61	463	232	756

Specific social media tools used by local government managers

To understand the extent and ways in which local governments utilize different types of technology, the survey asks respondents to indicate if the department where they work uses social media tools for any purpose. Among the 803 who responded, 696 (86.7%) indicate that their organization uses social media (see Table 3). We then asked those 696 respondents if they use any of the following types of social media tools: Facebook, Twitter, You Tube, LinkedIn, Gov Loop, Skype, Flickr, GoogleTalk / Blackberry Messenger / or other instant messaging tools, MySpace, or Google Docs. Table 4 shows the types of social media tools used by those who report that their departments use social media tools. The most commonly used social media tool by local government managers is Facebook (91%), followed by Twitter (74%), YouTube (53%)

and instant messaging tools such as Google Talk or Blackberry Messenger (46%). The least frequent are GovLoop (6%) and My Space (8%).

Table 3. Frequency of social media tools among local government managers

	% Yes	Yes	Total
Facebook	91%	628	691
Twitter	74%	496	669
YouTube	53%	334	636
Google Talk, Blackberry Messenger, MSN, or other instant messaging tools	46%	291	627
LinkedIn	42%	267	634
Skype	22%	137	614
Google Docs	19%	109	588
Flickr	12%	74	602
MySpace	8%	49	602
Gov Loop	6%	35	604

It is possible that the use of social media in local governments varies by the type of department. To investigate whether or not the use of social media tools is related to department type, we ran a cross tabulation comparing responses to the question "Does your organization use social media for any purpose?" by department type (Mayor's office, Community Development, Finance, Parks and Recreation, and Police). The results are presented in Table 4. Table 4 indicates that social media use is frequently reported in all types of departments, for example 94% of the respondents from Mayor's offices and 87% of respondents in police departments indicate that they use social media. While more than 80% of respondents from all five departments report using social media, the Chi-square test indicates that the frequency of social media use varies significantly by department type. There is a statistically significant difference in the frequency of use of social media across department types in local governments.

2.1 *Most of the respondents (87%) report that their organizations use social media. Of respondents who use social media, Facebook is the most frequently used followed by Twitter.*

Table 4. Does your organization use social media for any purpose?

	Finance	Mayor's Office	Community Development	Parks & Recreation	Police	Total
Yes	97	133	147	155	164	696
% Yes	80%	94%	81%	90%	87%	87%
Total	121	141	181	172	188	803

Pearson Chi-Square 22.919; df=8; Asymp. Sig. (2-sided) = .003

The following section outlines the type and frequency of use of social media tools by different local government departments. Tables 5 through 8 show responses by department – finance, Mayor's office, community development, parks and recreation and police – to a set of questionnaire items that asks the respondent to indicate if their organization uses each type of social media for any purpose. Response categories include "yes", "no", and "don't know".

Table 5 outlines the types of social media tools used in Finance departments. Respondents working in Finance departments report the most common social media tools to be Facebook (93%) and Twitter (77%), followed by instant messaging tools such as Google Talk and Blackberry Messenger (47%), and YouTube (40%). The least frequent social media tools used in Finance departments in local governments are Gov Loop (3%) and MySpace (5%). Additionally, it is important to note that nearly half (49%) of the respondents working in finance departments do not know if their organizations use Gov Loop and around 40% do not know if their organization uses MySpace, Google Docs, or Flickr, indicating an overall under use or lack of knowledge about the use of social media tools in the organization.

Table 5. Social media tools in local government: Finance departments

	Yes	No	Don't Know	Total
Facebook	90	5	2	97
Twitter	72	14	7	93
YouTube	35	30	22	87
LinkedIn	23	39	24	86
Gov Loop	3	41	42	86

Social Media in finance departments continued	Yes	No	Don't Know	Total
Skype	16	46	24	86
Flickr	9	45	33	87
Google Talk, Blackberry Messenger, MSN, or other instant messaging tools	41	30	16	87
MySpace	4	46	35	85
Google Docs	8	42	34	84

Table 6 shows social media tool use among respondents working in the Mayor's office. Again, the most common social media tool used is Facebook (95%) followed by Twitter (78%). In comparison to Finance departments, respondents in the Mayor's office report more frequent use of YouTube (63%) and LinkedIn (50%). Local government managers in the Mayor's office, like those in Finance departments, report infrequent use of Gov Loop (9%) and MySpace (8%).

Table 6. Social media tools in local government: Mayor's office

	Yes	No	Don't Know	Total
Facebook	126	7	0	133
Twitter	101	25	3	129
YouTube	77	39	7	123
LinkedIn	61	50	12	123
Gov Loop	10	80	26	116
Skype	42	65	12	119
Flickr	26	71	20	117
Google Talk, Blackberry Messenger, MSN, or other instant messaging tools	49	52	21	122
MySpace	9	89	17	115
Google Docs	26	66	23	115

Table 7 indicates that the majority of respondents working in <u>Community Development departments</u> report using Facebook (89%) and Twitter (73%) in their work. Nearly half of respondents in Community Development departments report using YouTube (45%), LinkedIn (45%), and instant messaging tools - Google Talk, Blackberry Messenger, MSN - (45%) in their work. Forty percent of respondents from Community Development departments do not know if their organizations use social media tools such as Gov Loop and Flickr.

Table 7. Social media tools in local government: Community Development departments

	Yes	No	Don't Know	Total
Facebook	129	12	4	145
Twitter	105	29	9	143
YouTube	61	55	20	136
LinkedIn	62	51	24	137
Gov Loop	6	70	52	128
Skype	27	67	35	129
Flickr	10	66	52	128
Google Talk, Blackberry Messenger, MSN, or other instant messaging tools	61	44	31	136
MySpace	2	87	37	126
Google Docs	22	58	46	126

Table 8 indicates social media tools use in <u>Parks and Recreation departments</u>. Similar to other departments in local government, Facebook (94%) and Twitter (78%) are frequently used. Half of the respondents working in Parks and Recreation departments also report using instant messaging tools and a little more than one-quarter use Google Docs (28%).

Table 8. Social media tools in local government: Parks & Recreation departments

	Yes	No	Don't Know	Total
Facebook	145	9	0	154
Twitter	115	28	5	148
YouTube	87	46	8	141
LinkedIn	66	51	25	142
Gov Loop	9	77	49	135
Skype	30	76	31	137
Flickr	25	66	42	133
Google Talk, Blackberry Mssngr, MSN, or other instant messaging tools	70	46	24	140
MySpace	8	92	36	136
Google Docs	37	54	42	133

Table 9 shows social media tools use by Police departments. Similar to the other local government departments, Facebook (85%) and Twitter (66%) are the most commonly used social media tools. About half of the respondents also indicate that their Police departments use YouTube (50%) and Google Talk, Blackberry Messenger, MSN, or other instant messaging tools (49%). While respondents in other departments report low usage of MySpace (2% to 8%), 19% of the police respondents indicate that their organizations use MySpace.

Table 9. Social media tools in local government: Police departments

	Yes	No	Don't Know	Total
Facebook	138	22	2	162
Twitter	103	43	10	156
YouTube	74	66	9	149
LinkedIn	55	77	14	146

Social Media in police departments continued	Yes	No	Don't Know	Total
Gov Loop	7	95	37	139
Skype	22	101	20	143
Flickr	4	107	26	137
Google Talk, Blackberry Messenger, MSN, or other instant messaging tools	70	56	16	142
MySpace	26	95	19	140
Google Docs	16	89	25	130

Open Source Software (OSS) use

2.2   The most frequently used Open Source Software (OSS) in local governments is Geographical Information System (GIS) software.

The survey also asks respondents to indicate whether their department uses twelve different types of Open Source Software (OSS), non-proprietary software that is generally free and can be reviewed by large numbers of users and revised and shared among users free of charge. The results are summarized in Table 10.

The results show that the most common OSS used in local governments is Geographical Information System (GIS) software, with 80.1% of respondents indicating that their organizations use this type. The second most common type of open source software is Internet browser software (49.7%), followed by Word processing software (40.3%) and database software (36.7%). The least frequently used OSS types reported by local government managers are programming language software (16.8%) and content management software (11.7%).

Table 10. Does your organization make use of any of the following types of Open Source Software (OSS) applications?

	Yes	No	Don't know	Total
Geographical Information System (GIS) Software	80.1%	12.2%	7.7%	749
Internet browser software (e.g. Firefox)	49.7%	28.4%	21.9%	749
Word processing software (e.g. Open Office)	40.3%	36.7%	23.0%	745
Database software (e.g. MySQL, PostgreSQL)	36.7%	17.9%	45.4%	743
Media player software (e.g. VLC)	31.7%	20.9%	47.4%	736
Email software (e.g. Thunderbird)	30.9%	27.7%	41.4%	740
Operating system software (e.g. Linux)	28.5%	36.7%	34.8%	738
Server software (e.g. Apache)	26.8%	23.7%	49.5%	739
File transfer software (e.g. Filezilla)	19.5%	21.5%	59.0%	738
Procurement system software (e.g. Coupa Express)	17.8%	38.9%	43.3%	742
Programming language software (e.g. PHP)	16.8%	21.8%	61.4%	734
Content management software (e.g. Drupal, Plone-Zope, or Joomla)	11.7%	24.9%	63.4%	732

Managing technology use in the department

The survey asks respondents about the management of technology in their departments. Specifically, one questionnaire item asks about guidance and policies for social media use, while a second item asks about the management of information technology and who is responsible for maintaining and improving the department website and eGovernment services. A third question asks respondents about the timeliness with which problems with computers and the Internet are resolved.

2.3   *Most local governments have developed guidance for social media use in the form of acceptable use guidance as well as agency policies. Slightly less than half rely on best practices guidance.*

Next, we look to determine if and how local governments oversee or control the use of social media in their organizations, whether it be through agency policies, best practices, or guidance on acceptable use. Table 11 shows the percentages of the "yes", "no", and "don't know" responses to the question "Please indicate whether your organization has developed guidance for social media in any or all of the following forms:" guidance on acceptable use, agency policies, and best practices. As shown in Table 11, most of the respondents indicate that their organizations have developed both guidance on acceptable use of social media as well as agency policies, with 65.4% and 63.3% reporting "yes", respectively. Best practices are less common with 44.6% reporting "yes".

Table 11. Organization has developed guidance for social media use in any or all of the following forms: guidance, agency policies, and best practices

	Yes	No	Don't know	Total
Guidance on acceptable use	65.4%	20.2%	14.4%	742
Agency policies	63.3%	23.3%	13.4%	752
Best practices	44.6%	32.6%	22.8%	734

2.4   Most local governments have either a designated person in the department and/or a separate information technology department that is responsible for website and eGovernment service maintenance and updating. Few departments contract these tasks out to external service providers.

In the survey, we ask respondents to indicate who is responsible for maintaining and improving their department's website and eGovernment services. Response categories are as follows: 1) a designated person in our department, 2) a separate information technology department, and 3) contracted external service providers. The frequencies of these responses are summarized below in Figure 3.

Figure 3. Who is responsible for maintaining and improving your department website and eGovernment services? Check all that apply.
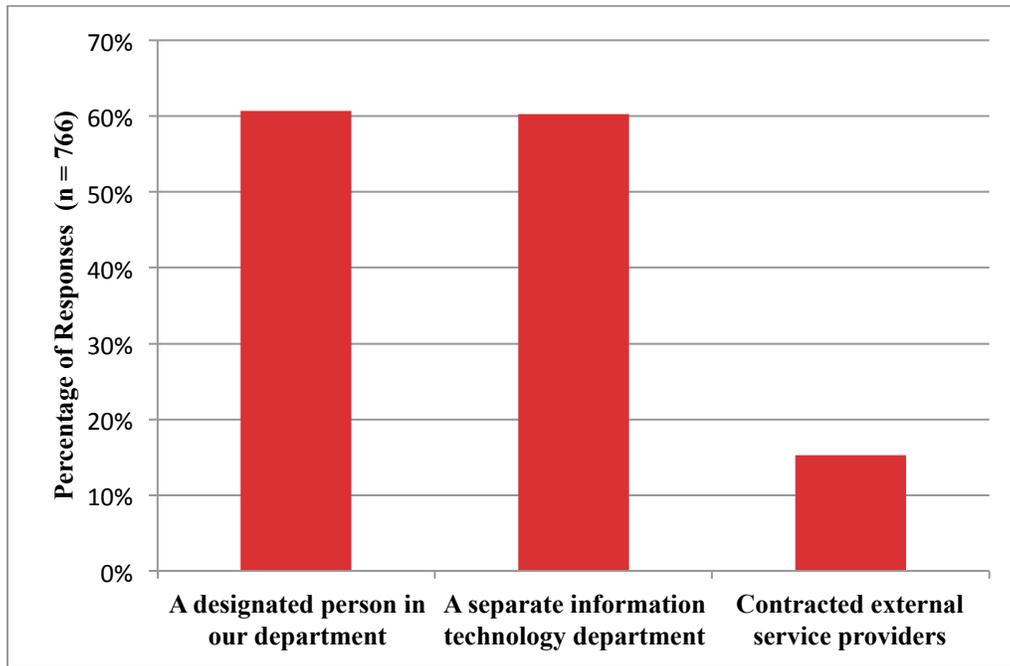

According to the results, nearly the same percentage of respondents indicate that maintenance and improvements of department websites and eGovernment services are done by a designated person in the department and/or a separate information technology department, with 60.7% and 60.3% indicating these responses, respectively. Frequency of contracting out these responsibilities to external service providers is much less common, with only 15.3% of respondents reporting the use of contractors.

2.5   ***Over 90% of the respondents report that computer and/or Internet-related problems are usually solved within a few hours or within a day.***

In addition, we investigate how responsive technology services are when solving computer or Internet-related problems in local governments. We ask respondents how long it usually takes for resolution: within a few hours, within a day, within a few days, or a week or more. The distribution of the frequency is shown in Figure 4.

Figure 4. When you have a problem with your computer or the Internet, usually how long does it take for technology services to resolve it?
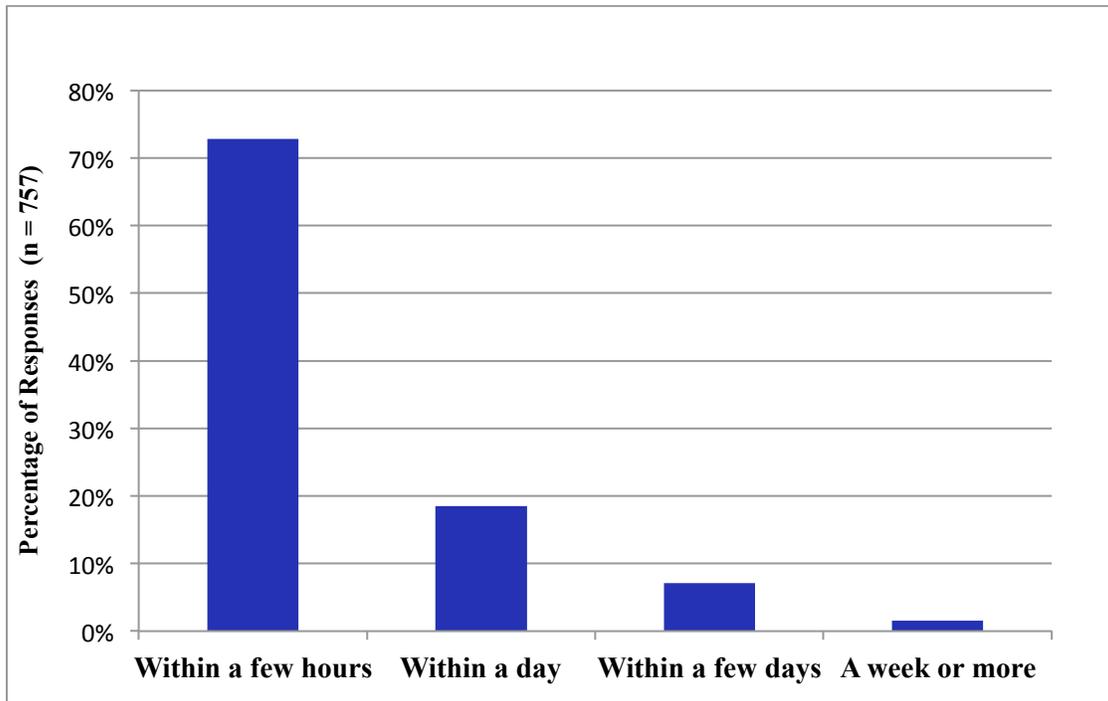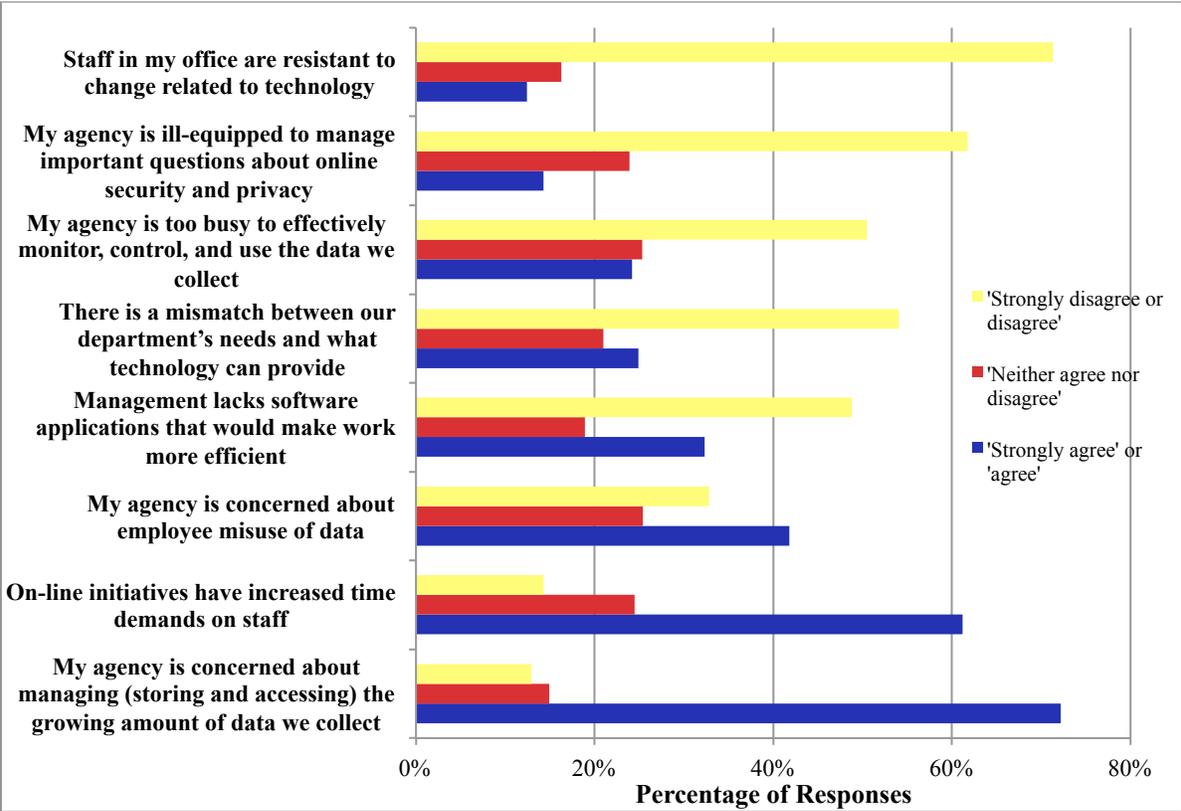

Nearly three-quarters (72.8%) of the respondents indicate that in their organizations technology-related problems are solved "within a few hours" and another 18.5% report resolution "within a day". Only twelve out of the 757 respondents, or 1.6%, report that it takes "a week or more" for issues to be resolved.

2.6 *The majority of public managers tend to disagree with the statement that staff members in their agencies are resistant to change related to technology; however, nearly the same percentage of believes that their agencies are concerned about managing (storing and accessing) the growing amount of data collected through utilizing technology.*

Figure 5 illustrates responses to a set of items that asked respondents to indicate their level of agreement and disagreement with a variety of statements about their departments' capacity to adopt and manage technology. Items included statements such as "Staff in my office are resistant to change related to technology" and "there is a mismatch between our department's needs and what technology can provide". Three-quarters of respondents 'agree' or 'strongly agree' with the statement "My agency is concerned about managing (storing and accessing) the growing amount of data that we collect". Slightly more than 40% of respondents 'agree' or 'strongly agree' with the statement "My agency is concerned about employee misuse of data".

These two findings taken together indicate a shared concern about data use and management in local governments.

Figure 5. Please indicate your level of agreement or disagreement with the following statements.

As shown in Figure 5, nearly three-quarters (71%) of respondents 'strongly disagree' or 'disagree' with the statement that "staff in my office are resistant to change related to technology'. More than half also 'strongly disagree' or 'disagree' that their agencies are ill-equipped to manage important questions about online security and privacy and that there is a mismatch between their department's needs and what technology can provide. Taken together these responses indicate that local government managers believe their organizations are open to change related to technology and well-equipped to manage technology to meet their needs.

Part III. eGovernment

This final section captures manager perceptions and other findings related to eGovernment. Topics include respondents' perceptions about eGovernment outcomes, opinions on city website quality, the amount of information on the websites, as well as the extent to which online initiatives are offered in their organizations and are used by the public.

Outcomes of electronic information and communication technologies

3.1   Improving information dissemination to external stakeholders and citizens and increasing access to government services are the two greatest perceived impacts of electronic information and communication technologies. Negative impacts are less frequently reported by public managers.

We investigate respondents' opinions about the outcomes of electronic information and communication technologies (ICT). The survey asks local government managers the extent to which they believe ICTs lead to certain outcomes related to service delivery, government decision making, and citizen attitudes about government. The response options include: 1) to a very small extent, 2) to a small extent, 3) somewhat, 4) to a great extent, and 5) to a very great extent. Figure 6 illustrates the percentage of responses to each item that indicated 'to a very great extent' and 'to a great extent'. For example, more than three out of four respondents (77.6%) report that the use of technology improves information dissemination to external stakeholders and citizens and 76.3% of respondents believe that these technologies also increase citizen access to governmental services to a 'great extent' or a 'very great extent'. In comparison, respondents perceive that technology adoption has lower impacts on increasing the importance of the respondents' work and revitalizing public debate, with response frequencies of 31.6% and 29.4% for the two categories 'to a great extent' and 'to a very great extent', respectively.

Figure 6. Percentage of responses that electronic information and communication technologies lead to the following outcomes "to a great extent" and "to a very great extent"
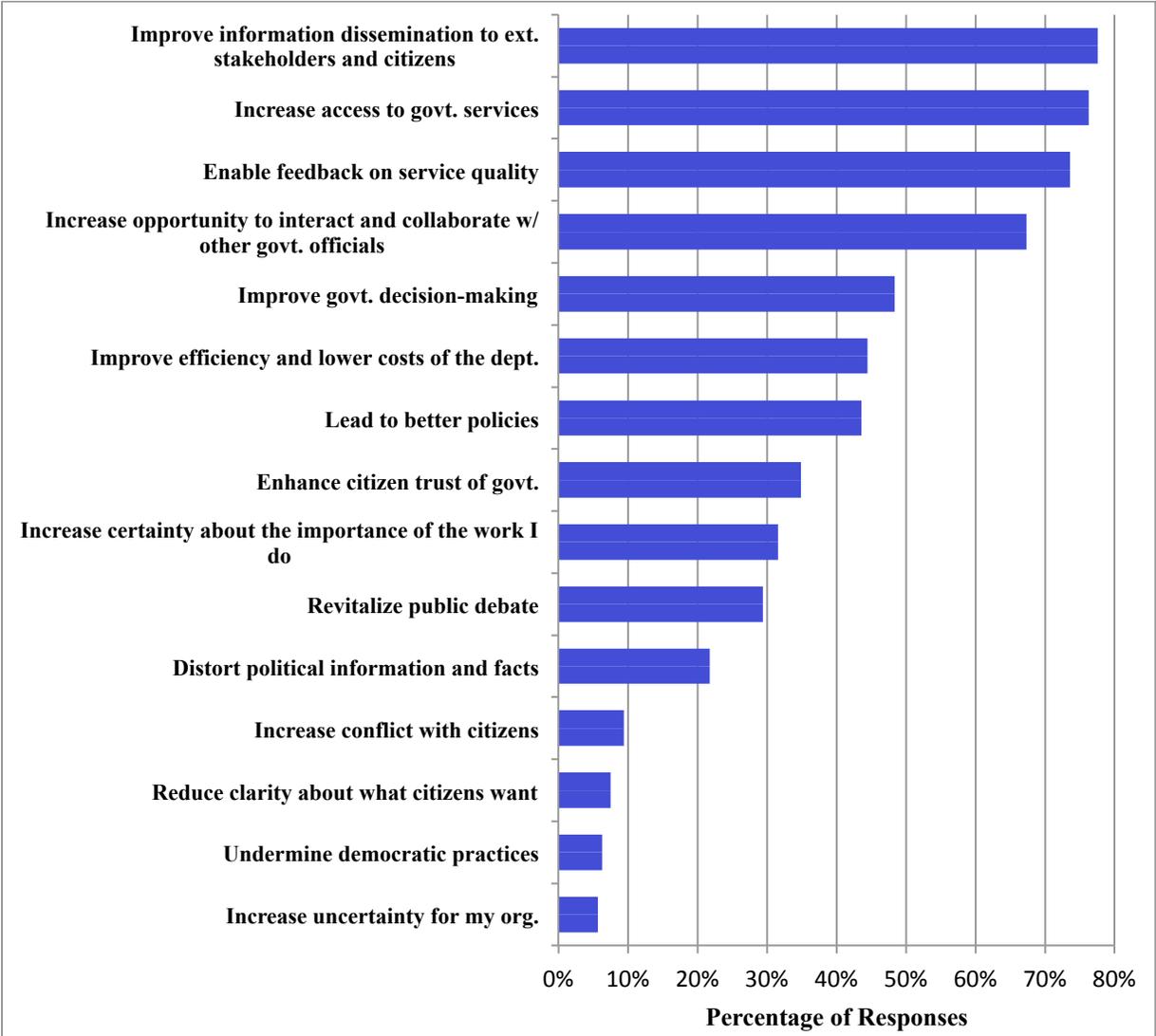
In order to capture public managers' opinions about any potential negative effects of information and communication technologies, the survey asks about the extent to which these distort political information and facts, increase conflict with citizens, reduce clarity of what citizens what, undermine democratic practices, and increase uncertainty for the organization. Although managers generally score these items lower than the positive outcomes discussed earlier, negative effects were still present. Managers are more concerned that technologies "distort political information and facts", with 21.8% believing this to be an outcome 'to a great extent' and 'to a very great extent', than "undermine democratic practices" or "increase uncertainty", with 6.3% and 5.7% reporting at these magnitudes, respectively. Therefore, while

distorting political information and facts are a predominantly perceived negative outcome, its potential is relatively low compared to the possible positive outcomes of ICTs. These frequencies, summarized in Figure 6, indicate that local government managers believe that the benefits of electronic information and communication technologies outweigh – perhaps to a great degree – the disadvantages of these technologies.

Manager perceptions of city website

3.2   *Managers generally have positive perceptions of city website quality; however, they also tend to think that there should be more information on the website that is relevant to citizens and external stakeholders.*

This next set of analyses focuses on understanding how public managers perceive the quality of city websites. The survey asks respondents to indicate the extent to which they agree with various statements related to the city website. The response options are 'strongly agree', 'agree', 'neither agree nor disagree', 'disagree', and 'strongly disagree'. Table 12 summarizes the responses to three questions about city website quality.

Table 12. Manager perceptions of city websites

|	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The city's website is easy to navigate. (n=716)	13.5%	51.3%	17.7%	14.1%	3.4%
The information on the city's website is up-to-date. (n=717)	10.5%	52.0%	23.0%	13.4%	1.1%
The city website is poorly managed. (n=714)	2.8%	9.5%	25.0%	48.6%	14.1%
The city's website should have more information relevant to citizens and external stakeholders (n= 715)	12.0%	36.1%	32.0%	17.2%	2.7%

Table 12 indicates that overall, public managers are satisfied with the city website quality. Nearly two-thirds (64.8%) of the respondents 'strongly agree' or 'agree' that the website is easy to navigate, 62.5% report that the website is up-to-date, and 62.7% 'strongly disagree' or 'disagree' that the website is poorly managed. Conversely, almost half of the respondents (48.1%) believe that the information on the website can be improved and agree that it should have more information relevant to citizens and external stakeholders. Thus, while respondents have a generally positive outlook on the city websites, they agree that more information could be included to communicate with the public and external stakeholders.

3.3   *The majority of respondents report that their organization's website contains "about the right amount" of information in every aspect listed.*

The survey asks respondents a series of questions about the city website. Respondents are asked whether the city provides too little, just the right amount, or more than is necessary with regards to: (1) employee contact information, (2) information about the day-to-day work of the agency, (3) information about important decisions the agency makes (4) information evaluating the impact of the agency's work, and (5) information about agency meetings, including agendas, minutes, and other postings. Response categories include: the amount of information provided was 'much more than is necessary', 'somewhat more than is necessary', 'about the right amount', somewhat less than is necessary, or 'much less than is necessary'. In all five areas of information, respondents overwhelming indicate that the city is providing the "about the right amount of information" on the website. Figure 7 shows the summary of these responses.

Figure 7 shows that in every type of information listed, between 51.4% ("information evaluating the impact of the work your agency does") and 77.6% ("employee contact information") of the respondents indicate that their department's website or webpage(s) contains 'about the right amount' of information. Alternately, between 6.1% and 19.3% of the respondents perceive an information level that is 'more than is necessary', which combines responses of 'somewhat more' and 'much more than is necessary', across the five information types. The frequency of indicating 'somewhat less' and 'much less than is necessary', is also relatively low, ranging between 11.9% and 42.5% of all responses.

Figure 7. Considering the following types of information, please indicate whether or not your agency provides the necessary amount of information on its website or webpage(s).
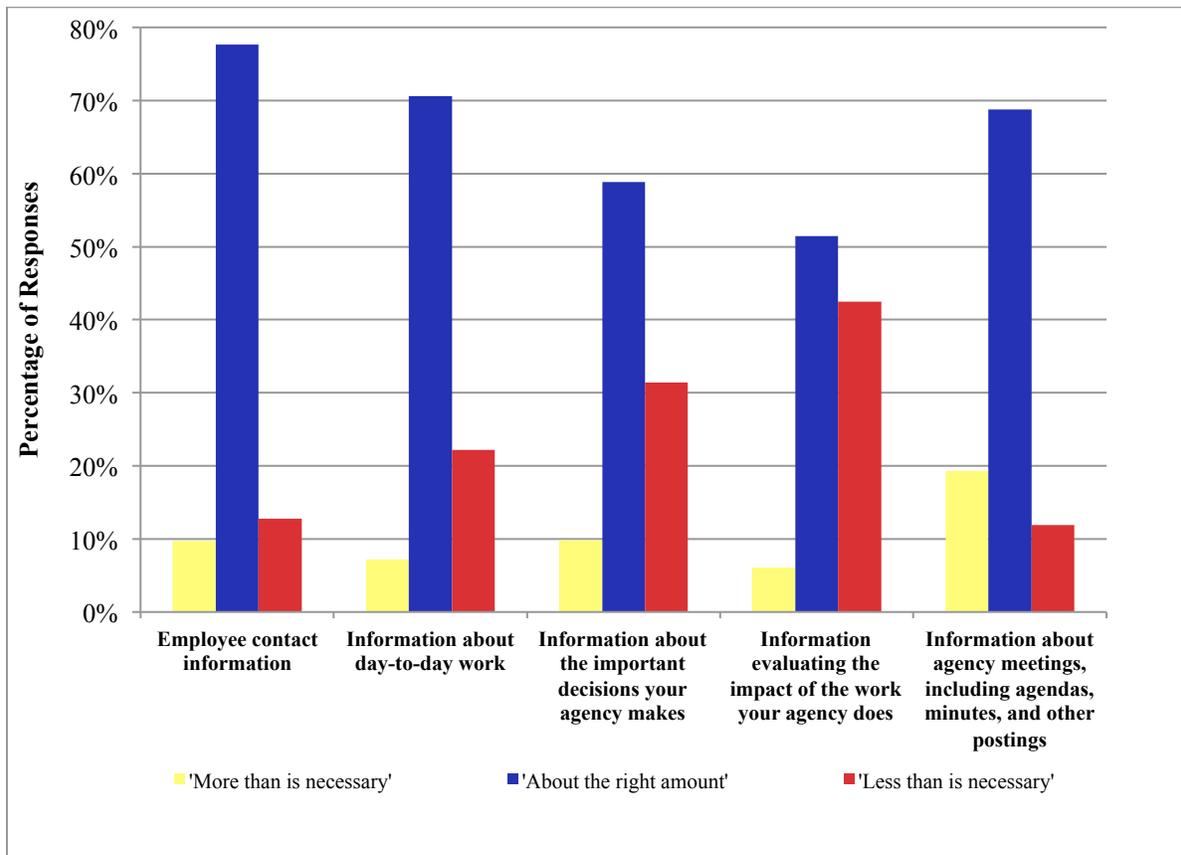
Online service use

3.3 *The most commonly offered online service among local governments is online completion and submission of job applications, followed by online requests for services that the department is responsible for delivering.*

The survey assesses the extent to which local government agencies offer different types of online service to citizens. Table 13 summarizes the results and shows that more than half of the respondents report that their organizations offer each type of online services. The most commonly offered is "online requests for services that your department is responsible for delivering" (70%) followed by "online completion and submission of job applications" (66%). "Online delivery of local government records or department information to citizens who request

information" is the least common, though slightly more than half (53%) of respondents still indicate this as an offered service.

Table 13. Does your department currently offer the following online services?

	Yes	No	Don't Know	Total
Online payment for services including fees and fines	58.5%	36.9%	4.6%	710
Online delivery of local government records or department information to citizens who request information	53.1%	37.6%	9.3%	710
Online requests for services that your department is responsible for delivering	70.0%	26.8%	3.2%	709
Online completion and submission of job applications	66.5%	25.3%	8.2%	710

Table 14 shows the types of online services offered in local governments by department type. Among all respondents who indicate that their departments offer "online requests for services that your department is responsible for delivering" (n=415), 23% work in community development departments and 14% work in finance departments. Overall, it seems that respondents in all five departments report online services for a variety of purposes and there is not a clear distinction in the types of online services offered by department type.

Table 14. Types of online services offered by department type

	Mayor's Office	Community Development	Finance	Parks & Rec	Police
Online requests for services that your department is responsible for delivering	19%	23%	14%	22%	22%
Online completion and submission of job applications	19%	18%	16%	22%	25%
Online payment for services including fees and fines	23%	15%	19%	26%	18%
Online delivery of local government records or department information to citizens who request information	20%	22%	16%	19%	23%

Summary and Conclusions

The purpose of this report is to describe the status of and relationships between public participation, technology and social media use, and eGovernment in local governments in the United States. The report presents findings from a 2012 national survey of local governments on information dissemination, public participation, and technology use and its effects, as part of a long-term research study interested in understanding the relationships between technology and civic engagement in local governments. Findings and observations are summarized in the following paragraphs.

Participation:

- In decision and policy making contexts, members of the public tend to participate with greatest frequency through giving feedback on service quality, followed by providing input on service priorities and long range plans.

- The individuals or groups that participate most frequently in local government decision and policy making are internal department staff, the Mayor's office, and other city departments, followed by individual citizens, neighborhood associations, and interest groups.

Utilization of Technology and Social Media:

- The most common technologies used by local government managers are e-mail (99%), online newsletters (82%), web surveys or polls (69%), and text messaging (66%).

- Most departments have adopted social media technologies such as Facebook (91%) and Twitter (74%) while a few use electronic polling during face-to-face meetings (12%) and wikis (8%).

- There is a statistically significant difference in the frequency of social media use across department types in local governments.

- Most local governments have developed guidance for acceptable use of social media and agency policies. Best practices for social media is less common but still prevalent in local governments.

- Few departments contract out to external service providers for maintaining and updating department websites and eGovernment services, relying more on a designated person

within the department and/or a separate information technology department for these tasks.

- Nearly all respondents report that computer and/or Internet-related problems are usually solved within a few hours or within a day.

- Geographical Information System software is the most commonly used Open Source Software (OSS) in local governments – reported by 80% of respondents – followed by Internet browser software (49.7%) and word processing software (40.3%).

- The majority of public managers tend to agree that staff in their agencies are not resistant to change related to technology; however, with nearly the same intensity, they also believe that their agencies are concerned about managing (storing and accessing) the growing amount of data collected through utilizing technology.

- Improving information dissemination to external stakeholders and citizens and increasing access to government services are the two greatest perceived impacts of electronic information and communication technologies. Negative impacts are less frequently reported by public managers.

eGovernment:

- Managers generally have positive perceptions of city website quality; however, they also tend to think that there should be more information on the website that is relevant to citizens and external stakeholders.

- The majority of respondents reported that their organization's website contained "about the right amount" of information in every aspect listed.

- The most commonly offered online services reported by local government managers are online requests for services that the department is responsible for delivering (70%) and online completion and submission of job applications (66%).

Appendix A- Methodology

The national web-based survey of local governments, sponsored by Institute of Policy and Civic Engagement at University of Illinois at Chicago, was conducted by the Science, Technology and Environmental Policy Lab at the University of Illinois at Chicago between February 21, 2012 and May 5, 2012. The survey instrument, developed by Dr. Mary Feeney, Dr. Megan Haller, and Dr. Eric Welch, was designed to collect data on the types of activities in which the public engages, the utilization of Internet-based technology by the organizations, manager perceptions about technology and eGovernment use, as well as organizational factors such as financial and technological capacity of government, management and leadership qualities, and external contextual factors that may encourage or mitigate efforts by government to engage citizenry. The survey instrument with exact questionnaire items referenced in the report is provided in Appendix B.

A total of 2500 individuals received the invitation to participate, with 703 responding for a total response rate of 29%. Table 15 below shows the final response rate details.

Table 15. Final response rate

Original Sample	2500
No Email Address	2
Not Working / Retired	70
Adjusted Sample	2428
Responses	703
Response Rate	**29%**

The survey was administered to government managers in 500 local governments with citizen populations ranging from 25,000 to 250,000. The breakdown of cities by population is highly skewed to smaller cities (50%), with only 16% of cities being 100K-250K. Because larger cities tend to have more capacity for eGovernment and the ability to adopt innovative technology and there are fewer cities in these population ranges, the authors elected to do a census of the larger communities (100K-250K), and drew a proportional sample for the cities 25K-100K. The census of cities with a population 100K-250K resulted in 184 cities. For the remaining 316 cities, a proportional sample with 59% of the sample was drawn from 25K-50K, 28% from 50-75K, and 13% from cities 75K-100K. Tables 16 and 17 below show the number and percent of responses by city size and department type. As noted in Table 16, the 37.8% of respondents are from smaller towns with a population less than 49,999. Another 19% are in cities with a

population from 50,000 to 74,999. The lowest response rate came from respondents who work in the Finance department (15.6%), while respondents in Police departments (23.9%), Community Development departments (22.1%), and Parks and Recreation departments (21.3%) each account for slightly more than one fifth of responses.

Table 16. Number and percent of responses by department type

Population	Frequency	Percent
less than 49,999	319	37.8
50,000 thru 74,999	162	19.2
75,000 thru 99,999	56	6.6
100,000 thru 124,999	113	13.4
125,000 thru 149,999	73	8.6
150,000 thru 174,000	43	5.1
175,000 thru 199,999	36	4.3
200,000 thru 124,999	27	3.2
225,000 thru 250,000	16	1.9
Total	845	100

Table 17. Number and percent of responses by department type

Department Type	Frequency	Percent
Mayor's Office	144	17
Community Development	187	22.1
Finance	132	15.6
Parks & Recreation	180	21.3
Police	202	23.9
Total	845	100

Appendix B- Exact Questionnaire Items and Response Categories for the Survey Questions Presented in the Report

Public Participation

We would like to ask you some questions about your organization's interaction with the public.

I.   **Over the past year, how often did members of the public contribute the following to your organization?**

a.   Input on long range plans
b.   Input on service priorities
c.   Feedback on service quality
d.   Formal oversight of your organization
e.   Feedback on department decisions
f.   Input on improving department management and operations
g.   Input on employee conduct

1 = Very Often
2 = Often
3 = Sometimes
4 = Rarely
5 = Never
6 = Don't Know

Stakeholders include organizations and individuals outside your organization including local community organizations, nonprofit or educational groups, or other government agencies.

Participation is defined as the process in which citizens and external stakeholders take part in agency decisions.

II.   **Over the last year, how often did the following citizen and stakeholder groups participate in your organization's decision and policymaking?**

a.   Individual citizens
b.   Neighborhood Associations

c.   Federal government agencies/employees/officials
d.   News media
e.   Interest groups
f.   Urban civic groups
g.   Religious groups
h.   Consultants or paid experts
i.   Professional associations
j.   Internal department staff
k.   Other city departments
l.   Mayor's office
m.   Governor's office
n.   State legislators

1 = Very Often
2 = Often
3 = Sometimes
4 = Rarely
5 = Never
6 = Don't Know

III.   Is your organization legally required to include citizen input in policy-making activities?

1 = Yes
2 = No
3 = Don't Know

IV.   Is the legal requirement based on:

a. Federal law
b. State law

1 = Yes
2 = No
3 = Don't Know

Technology Use and Social Media

We would now like to ask you about the use of technology in your organization.

For the purposes of this survey, social media is defined as having the characteristic of being social and interactive in nature – allowing, but not requiring, two-way information exchange between individuals or groups, such as between individual public employees and citizen. Examples of commonly used social media tools include: blogs, Facebook, Twitter, YouTube, etc.

    V.   To the best of your knowledge: does your organization use social media for any purpose?

1 = Yes
2 = No
3 = Don't Know

    VI.   Please indicate which of the following social media tools your organization uses for any purpose.

a. Facebook
b. Twitter
c. YouTube
d. GovLoop
e. Skype
f. Flickr
g. GoogleTalk, Blackberry Messenger, MSN, or other instant messaging tools
h. MySpace
i. Google Docs
j. Other (please specify)
k. Other (Please specify)

1 = Yes
2 = No
3 = Don't Know

VII. **To the best of your knowledge does your organization use any of these other technologies for any purpose?**

a.   Blogs
b.   Online chats
c.   Discussion forums
d.   E-mail
e.   Online newsletters
f.   Audio Webcasts
g.   Text messaging
h.   Really simple syndication (RSS feeds)
i.   Video sharing tools (e.g. YouTube)
j.   Web surveys or polls
k.   Wikis
l.   Electronic polling during face-to-face meetings
m.   Collaboration on documents (e.g. Google Docs)
n.   Work coordination tools (e.g. Google Calendar, MS Project)
o.   File sharing tools (e.g. DropBox)
p.   Voice over IP (e.g. Skype)

1 = Yes
2 = No
3 = Don't Know

Open Source Software (OSS) is non-proprietary software that is generally free, can be reviewed by large numbers of users, and can be revised and shared free of charge.

VIII. **Does your organization make use of any of the following types of Open Source Software applications?**

a.   Internet browser software (e.g. Firefox)
b.   Word processing software (e.g. Open Office)
c.   Operating system software (e.g. Linux)
d.   Geographical information system software (GIS)
e.   Procurement system software (e.g. Coupa Express)
f.   Server software (e.g. Apache)
g.   Database software (e.g. MySQL, PostgreSQL
h.   Programming language software (e.g. PHP)
i.   Content management software (e.g. Drupal, Plone-Zope, or Joomla)

j. File transfer software (e.g. Filezilla)
k. Media player software (e.g. VLC)
l. Email software (e.g. Thunderbird)

1 = Yes
2 = No
3 = Don't Know

IX.   Please indicate whether your organization has developed guidance for social media use in any or all of the following forms:

a. Agency policies
b. Best practices
c. Guidance on acceptable use

1 = Yes
2 = No
3 = Don't Know

X.   Who is responsible for maintaining and improving your department website and eGovernment services? Check all that apply.

a. A designated person in our department.
b. A separate information technology department.
c. Contracted external service providers only.

XI.   When you have a problem with your computer or the Internet, usually how long does it take for technology services to resolve it?

a. Within a few hours
b. Within a day
c. Within a few days
d. A week or more

XII.   Please indicate your level of agreement or disagreement with the following statements:

a. On-line initiatives have increased time demands on staff
b. My agency is ill-equipped to manage important questions about online security and privacy
c. Staff in my office are resistant to change related to technology
d. Management lacks software applications that would make work more efficient
e. There is a mismatch between our department's needs and what technology can provide
f. My agency is concerned about employee misuse of data
g. My agency is concerned about managing (storing and accessing) the growing amount of data we collect
h. My agency is too busy to effectively monitor, control, and use the data we collect

1 = Strongly agree
2 = Agree
3 = Neither agree nor disagree
4 = Disagree
5 = Strongly disagree

eGovernment

XIII. In your opinion, to what extent do electronic information and communication technologies lead to the following outcomes?

a. Improve governmental decision-making
b. Lead to better policies
c. Increased uncertainty for my organization
d. Revitalize public debate
e. Distort political information and facts
f. Undermine democratic practices
g. Improve information dissemination to external stakeholders and citizens
h. Reduced clarity about what citizens want
i. Increase opportunity to interact and collaborate with other government officials
j. Increase access to government services
k. Enable feedback on service quality
l. Increase certainty about the importance of the work I do
m. Enhance citizen trust of government
n. Increase conflict with citizens
o. Improve efficiency and lower costs of the department

1 = To a very small extent

2 = To a small extent
3 = Somewhat
4 = To a great extent
5 = To a very great extent

XIV. **Thinking about your <u> city's website, please indicate your level of agreement or disagreement with the following statements:**

a. I regularly direct residents to the city's website
b. When I am responding to a citizen's phone call, I use the city website to get information
c. The city's website is easy to navigate
d. I think that the city's website should have more information relevant to citizens and external stakeholders
e. The information on the city's website is up-to-date
f. The city website is poorly managed
g. Citizens tell me our website is very useful
h. Citizens are often frustrated with the way content is organized on our website
i. People who call my office often ask questions that can be answered by visiting the website
j. 1Citizens complain about our website

1 = Strongly agree
2 = Agree
3 = Neither agree nor disagree
4 = Disagree
5 = Strongly disagree

XV. **Considering the following types of information, please indicate whether or not your agency provides the necessary amount of information on its website or webpage(s).**

a. Employee contact information
b. Information about the day-to-day work of your agency
c. Information about the important decisions your agency makes
d. Information evaluating the impact of the work your agency does
e. Information about agency meetings, including agendas, minutes and other postings

1 = Much more than is necessary

2 = Somewhat more than is necessary
3 = About the right amount
4 = Somewhat less than is necessary
5 = Much less than is necessary

XVI. **Please indicate if your department currently offers the following online services or not.**

a. Online payment for services including fees and fines
b. Online delivery of local government records or department information to citizens who request information.
c. Online requests for services that your department is responsible for delivering
d. Online completion and submission of job applications

1 = Yes
2 = No
3 = Don't Know