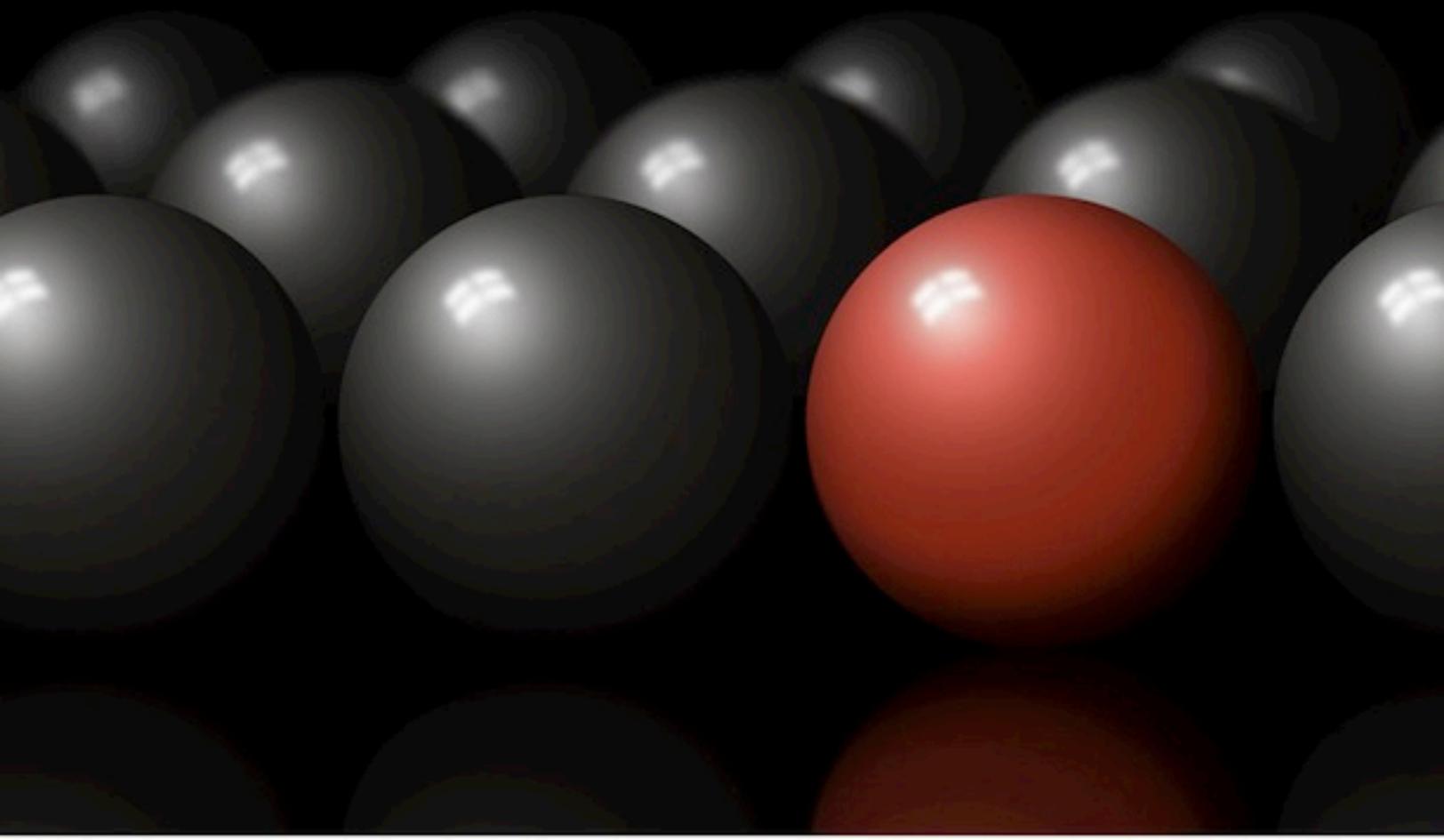


Journal of
• Virtual Worlds Research

jvwresearch.org ISSN: 1941-8477

**Government
& Military**

September 2011



Volume 4, Number 2

Government and Defense

September 2011

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This issue includes papers from the 2010 Federal Consortium for Virtual Worlds Conference organized by Paulette Robinson and her colleagues at the National Defense University.

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Volume 4, Number 1

Metaverse Assembled 2.0

July 2011

**MuniGov 2.0, A New Residency Requirement:
Local Government Professionals in Second Life**

Ines A. Mergel, School of Citizenship and Public Affairs, Syracuse University

Michelle Gardner, Florida Institute of Government, University of Central Florida

Pamela Broviak, Co-Founder MuniGov2.0

William Greeves, Co-founder MuniGov2.0

Abstract

The virtual world Second Life allows social interactions among avatars - online representations of real-life people – and is slowly adopted in the public sector as a tool for innovative ways to interact with citizens, interorganizational collaboration, education and recruitment (Wyld 2008). Governments are setting up online embassies, voting simulations, interactive learning simulations and virtual conferences. While there are very prominent and elaborate examples on the federal and state level of government, we have seen only a handful of applications on the local level. One of these local examples is MuniGov2.0 – a collaboration of municipal government professionals who regularly meet in Second Life. The goal of the group is to support each others geographically distributed implementation attempts to incorporate new technologies in the public sector. Interviews with the founding members and core group show clear mission-specific needs that Second Life collaboration can support, but that there are also technological and behavioral challenges involved using this highly interactive environment. The article will highlight the challenges, how they were met, lessons learned, future directions of the project and ends with recommendations for the use of Second Life in local government.

Keywords: Virtual worlds, Second Life, online collaboration, local government, Gov 2.0, Web 2.0

MuniGov 2.0, A New Residency Requirement: Local Government Professionals in Second Life

Public sector organizations are facing the dilemma to cope with broader mandates, increasing complexity of their missions, requests for higher responsiveness and collaboration with citizens (Vigoda, 2002). At the same time, the current administration – following President Obama’s campaign success – asks agencies and departments to be innovative by using new social media tools (Wheaton, 2007). The Open Government Directive from December 2009 (OGI: <http://www.whitehouse.gov/Open/>) specifically instructs agencies to increase collaboration, transparency and participation using social media technologies (Orzag, 2009). These tools have the capability to integrate information and opinions from citizens into the policy making process in innovative ways that might challenge the current standard operating procedures, but also promise to increase the degree of participation and transparency.

While federal agencies and departments have to adhere to the directive within a preset timeframe, the hope is that OGI will spur innovation on the state and local level (Crimmins, 2010). So far the relatively enthusiastic adoption curve on the federal level comes with a high number of unresolved variables when agencies are adopting social media applications, such as social media strategies and policies, public records management, cyber security and identity management, reach and inclusion of citizens. In contrast to the federal and state level, the local level in government is lagging behind in time and best practices of social media diffusion. Due to the imperative to provide innovative services, public managers at the local level have given their IT and communication leaders the task of exploring implementation options to facilitate a higher degree of participation and inclusion. On the local government level, which has the most limited resources for training or consulting support, but carries the highest demand for citizen interaction, these new developments present a significant challenge.

Without access to expert knowledge and limited local knowledge to solve implementation problems a group of municipal innovators created a collaborative social network called MuniGov2.0. The group regularly meets in the virtual world Second Life (SL) to collaborate and communicate on the topic of social media implementation within government.

To help form an understanding of how virtual worlds, specifically SL, can be used on the local government level, especially the challenges when adopting innovative technologies in the

public sector, this study is based on in-depth interviews with the founders and the core team of early adopters of MuniGov2.0 as well as participatory observation of meetings in SL. The transcribed interviews were analyzed using the qualitative data analysis software QSR Nvivo (NVivo 8, 2008). Interviews were coded using a coding start list, which imposed an initial structure onto the data. The codes were then used to identify additional emerging themes and let new constructs emerge from the data. The results show that municipal government professionals overcame the challenges of the highly interactive environment to collaborate across geographic and organizational boundaries in SL. They even were able to organize a large-scale online conference, blending online and offline participation.

Virtual worlds in government

Definition

Second Life is a 3-dimensional, interactive, social networking technology. Created and mostly housed on servers owned by Linden Lab, SL is not a game; there are no points to be earned and no levels to defeat in order to advance. SL is a collaborative technology that allows users to interact in real time with real text and voice conversation while they are physically located anywhere throughout the world. As with other Internet-based networking sites, users (called 'residents') create a user name and password to log into the software. The Second Life Viewer is a free download and required to run the software. Initially represented by an 'standard' avatar, a digital image of him/herself, once logged in, SL residents move through different locations in order to socialize with other people, attend meetings and conferences, listen to live music, engage in collaborative activities with other avatars and buy or sell resident-generated content such as clothing, furniture, upgrades to their avatars and peer-produce architecture, such as buildings or landscapes.

Second Life exemplifies the idea of a Web 2.0 technology as “a set of economic, social and technological trends, that collectively form the basis for the next generation of the Internet – a more mature, distinct medium characterized by user participation, openness, and network effects.” (O'Reilly, 2007). Beyond text, residents of Second Life interact with the platform and each other with objects and bodies (avatars) that speak and gesture. Such an environment creates personal interactions in a technologically based world. SL has very recently

further incorporated Web 2.0 technologies by releasing SL 2.0 Viewer (currently in Beta) that allows residents to interact directly with the Internet on the surface of items built in SL.

In April of 2008, Representative Edward J. Markey, chairman of the House subcommittee on Telecommunications and the Internet, made virtual world history by simulcasting the first ever Congressional hearing on virtual worlds in Second Life. (Markey, 2008). An outstanding visual demonstration of SL was presented to Congress by Philip Rosedale, former CEO of Linden Lab (see http://www.silverandgoldie.com/linden_congress.htm). At this session, Rosedale educated and answered questions on interactions of the residents of SL. President Obama has also involved the residents of SL with two of his talks video cast into SL since he took office. Our governments are embracing virtual world platforms as both communication and engagement tools.

Local government destinations in-world

Social networking sites have gained increased attention in government, – mainly influenced by President Obama's successful Internet strategy and his extensive use of Facebook and YouTube (Carpenter, 2009). Virtual worlds are less known and minimally used on the local government level. In comparison to other so-called Web 2.0 applications such as blogs, microblogging services, wikis or social networking sites, SL is a fully immersive technology and therefore has a steeper learning curve than other applications. According to Wyld (2008) SL can be used for four different functions in government:

- Reach citizens in new ways,
- Collaborate internally,
- Conduct training and simulations, and
- Recruit employees.

We discovered many prominent examples for each of these categories on the state and federal level, but there are only a few examples for the use of Second Life on the local government level (Linden Lab, ongoing; Orland, 2006). We have identified two international examples that were set up by local government authorities and three US examples:

Tameside Metropolitan Borough in the UK¹ is a 3-d representation of the local community displaying several features of local government agencies and offices to interact directly with visiting avatars. The central pavilion displays a downloadable strategy document (strategic plan). Visitors can watch an informational video on the project or walk through the open-air, two story pavilion and read posters that highlight government and community programs, services and projects. From the central hub, visitors can tour virtual council offices, a garden area, a demonstration of street services, a water-related museum and a stadium for events. Avatars strolling the street in the services sim (a single space in SL) will find signs, drains, garbage cans and other items found along a typical residential street. Each item is linked to the Tameside Streetscene System website. The region (an entire island space in SL) provides relatively static information about the community and its services, but also reaches out to citizens in innovative ways by providing a “SeeClickFix”-type application, where citizens can report issues that need to be addressed in their neighborhoods. Moreover, the Tameside region serves as an educational tool with a virtual aquifer museum, water wheel exhibit and a lecture hall.



Figure 1: Tameside Metropolitan Borough in Second Life - left image is the Council Office and right image is the open-air pavillion.

Birmingham Island²: According to the sign at the entry point to this build, “Birmingham Island has been developed to explore the possibilities for the city of Birmingham, UK, within virtual worlds.” Upon arrival, avatars can visit the following areas: B-scape display that allows visitors to access a variety of maps from the Birmingham area with enhanced Second Life 3D objects and Flickr photo feeds; Digital Birmingham offers several visions and ideas about

¹ <http://slurl.com/secondlife/Tameside/128/128/24>

² <http://slurl.com/secondlife/Birmingham%20Island/128/128/23>

furthering digital technologies in the Birmingham area; Library of Birmingham and Exhibitions Room—this area offers photos from the Library and Archives collection of the Birmingham Central Library; Birmingham Council Chambers—there is a recreation of the Birmingham council chambers that can be accessed through a teleport located within the Digital Birmingham area. A live feed displays the weather where avatars can experience the same weather occurring in Birmingham: A colored object on the path is illustrating the temperature, blue is used to designate cooler weather while red indicates a warmer climate. The data is fed into SL once every hour from the Yahoo Web site.



Figure 2: Birmingham Region

Prince Edward County Sim³ is located on the Canadian Loyalist College region with the goal to educate citizens about recreational activities in the region. Avatars can use bicycles to navigate the island and visit attractions such as a crystal palace, art trail, sandbanks, taste trail, wine trail, and graveyard. The cemetery plays an audio narration when an avatar moves close to a monument and shares a historical lore from the Prince Edward County region.

³ <http://slurl.com/secondlife/Prince%20Edward%20County/128/128/34>



Figure 3: Prince Edward County Sim

Alameda County, California : Virtual Polling Place⁴ was commissioned to demonstrate voting procedures. The county’s virtual polling site, developed by Avatrian opened in May 2009. Visitors arriving at the island are greeted with a digital representation of the Renee C. Davidson Courthouse located in Oakland, CA, and signs are used throughout the building to direct users to the polling place. Much of the time, non-human controlled avatars (called ‘bots’) can be found “working” in the polling site ready to assist people through the voting process. The build was also used to create a video that explains how the site works.

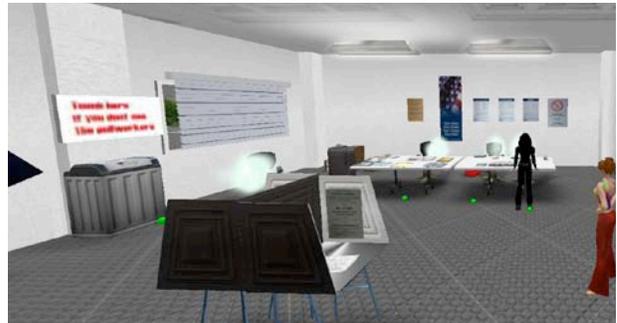


Figure 4: Alameda County, California Sim

⁴ <http://slurl.com/secondlife/Alameda%20County/175/153/32>

University of Central Florida – Orange County, Florida Poll Worker Training Center⁵ is a project funded by a grant from the Elections Assistance Commission. With the primary goal being to recruit and train college students as poll workers for the August and November 2010 elections, this sim is a replica of an ideal voting site for Orange County, Florida. Established as a training facility, this space has interactive equipment as well as detailed signs and forms as encountered by a voter on Election Day. The sole purpose this space, located on the UCF SL Campus, is to train college students how to be poll workers in Orange County, Florida.



Figure 5: UCF Virtual Voting Center – left image outside of building, right image inside with UCF students and MuniGov 2.0 voters.

MuniGov2.0 is a coalition of federal/state /municipal and international governments focused on exploring the use and principles of Web 2.0 in an effort to improve citizen services and communication via technology. MuniGov2.0 is the focus of this study and will be analyzed in detail.

Description of the MuniGov2.0 project

The MuniGov2.0 initiative was created by two technology innovators from the local government level. They developed an online meeting space on Google's iSites and invited interested municipalities to participate in an informal information exchange about social media tools. In addition to this relatively static website, a presence in SL was created to host synchronous exchanges. The group started the organization with a collaborative website using

⁵ <http://slurl.com/secondlife/Arts%20and%20Letters/148/240/21/>

Google iSites. They then built a Google Groups discussion board and established a foothold in the virtual world by setting up a MuniGov headquarters in SL



Figure 6: MuniGov2.0 group meeting

These initial efforts attracted a community of like-minded peers with a common interest in applying Web 2.0 concepts to local government. The group embraced the use of collaborative online tools and started documenting Web 2.0 resources and best practices, policies, ideas and suggestions for the use of social media tools in local government.

Eighteen months later, through word-of-mouth and some very timely media coverage the group has increased to over 800 members. Members are from all functions in local governments including police officers, public information officers, technology directors, and elected officials. The group has established a prolific Web presence (www.munigov.org) and meets in SL every other Wednesday evening to talk about the policies, tools, trials and tribulations of Government 2.0 or just government in general. Some of the group members created so-called "GovPod" - virtual offices for their government or county offices.



Figure 7: MuniGov2.0 – GovPod on Second Life

To understand how SL has enhanced information sharing and collaboration among municipal government professional, the core group and founders of MuniGov2.0 were interviewed. The interviews lasted between 30 and 90 minutes. The transcribed interviews were analyzed using the qualitative data analysis software called QSR NVivo (NVivo 8, 2008). Interviews were coded using a coding start list in a grounded theory approach, which imposes an initial structure onto the data. The codes were then used to identify additional emerging themes and let new constructs emerge from the data (Glaser & Strauss, 1967). In addition, participant observations were conducted. Access to interview partners and members were facilitated by the MuniGov2.0 initiators. An analysis of the group members self-reported affiliations and professions shows that ~ 1/3 of the members identified themselves as directors of their departments, ~1/3 as public managers, and roughly the other 1/3 are in support functions.

Needs filled or problems solved

Local and municipal public managers are facing the dilemma to be innovative when it comes to citizen participation, more transparency of government decision making and political participation and the need for increased intergovernmental collaboration. With President Obama's Executive Directive the federal agencies have a clear mandate to use social media technologies to solve some of these dilemmas. On the local government level the resources in the

form of human but also financial capital may not be readily available (Nichols, 2010). Moreover, there is still a high uncertainty how social media applications can contribute as a solution to some of these government problems (Moores, 2009).

The idea for MuniGov2.0 was born based on the need to understand these current developments in the use of Web 2.0 for the public sector and to find resources for "government foot soldiers" to take some Web 2.0 action (Carr, 2009). As the founders state: *"We whined about it for a little while but soon we decided that if we couldn't find it, we'd build it!"*..

MuniGov was modeled on the following principles to allow the group to evolve as more governments begin exploring and applying the concepts and technologies of the Web 2.0 movement:

- The more people participate in the development of the product, the more valuable it will become.
- All ideas and collaboration are welcome.
- Individual feedback and submissions will make the group a truly effective resource and create an environment in which everyone learns from each other.
- These principles were enhanced with the following basic goals:
- Become a recognized, powerful and dynamic resource for governments implementing and innovating via Web 2.0
- Establish a strong set of virtual-world resources for government agencies
- Coalesce into a large, active, and innovative user community
- Seek innovation and opportunity in difficult economic times
- Have a little fun along the way

"Let's institutionalize the concepts in our workforce, in our organizations, before it becomes a public mandate"

Individual needs are diverse, but overall focus on very similar issues of understanding new collaborative technologies as one of the members states:

"Well, we were looking for new ways to do conferencing. I spend a lot of my time networking with my peers in order to leverage their knowledge, and vice versa, and thought we would give it a shot, and turns it out it's a pretty good medium for doing that."

Others focus on learning from other IT professionals and local governments around the country to understand how to use these new technologies specifically in government:

"Well, the main reason to be part of it was that [name oppressed] County had already been looking at using a lot a different social media tools, a lot of the different Web 2.0 constructs. We were in the midst of redesigning our public facing website, [name oppressed].gov, and I was very interested in seeing how we could move some of these things along. That's the first reason. The second reason was that MuniGov I recognized as being a more national organization as opposed to our [state name oppressed] focused organization called [name oppressed]. So I was interested in how other municipalities around the country are making use of Web 2.0 and social media.

Second Life offers a low cost opportunity to participate in nation-wide events and learning opportunities in times of economic hardship: *"I don't go to a lot a conferences unless I'm speaking at them, because of travel restrictions and budget reductions in my locality."* In addition, it gives municipal government professionals an opportunity to learn from a diverse range of professions:

"I think that's one of the very few groups that's really focused on Web 2.0 at the municipal level, and it's a very open group. It's not just specific to one type of function within municipal government. For instance, there are IT people, but there are also public works, public safety, libraries, public information officers, and I work with all those. So, you get a broader perspective, and it's a really great place for collaborating and resource sharing. And the other thing is, it gave me an opportunity to, you know, actually use the tools that are out there in a productive way."

Challenges that were encountered and how the group met them

The group has met and overcome several obstacles in order to reach their goals of free and open information exchange for municipal government professionals. The challenges included funding and costs for the land, acceptance of online etiquette and new forms of virtual appearances, the relatively steep learning curve in comparison to other Web 2.0 applications,

accessibility and system requirements especially in restricted government IT environments, dealing with intruders and organizing a large-scale event in SL.

The individual challenges are discussed below and the technical and policy decisions the group had to make to overcome, mitigate or at least minimize these hindrances are presented.

Funding & Costs

Until recently the MuniGov2.0 virtual world headquarters operated from Public Works Island, a region that that was 100% funded out-of-pocket by one of the group's co-founders. Although this island was used for several virtual world initiatives relevant to her field (Public Works & Engineering), she generously allowed the group to occupy a section of the island on a rent-free basis. However, the cost of region as compared to similarly sized areas in other virtual worlds made it very difficult for her to justify the ongoing out-of-pocket expense. Additionally, Linden Lab's apparent apathy in providing much-needed discounts for government entities trying to establish a foothold in the virtual world led her to a decision to abandon land ownership in SL and seek less expensive alternatives.

The group made a concerted effort to find a new home while evaluating a long-term virtual-world strategy. In less than a week's time, three potential new locations were identified, including one offered directly by Linden Lab on a rent-free basis. In the end, the group decided to move their operations to SciLands, and accepted an offer from the National Oceanic and Atmospheric Administration without land-ownership fees.

There are no costs of membership to participate in Second Life, nor are there any requirements of land ownership. While several of the members have opted to advance their account to "Premium Membership" with SL, there are no financial obligations to participate in MuniGov2.0. Everyone is welcome to come and join the conversations without commitment.

Appearances and etiquette during the meetings

Perhaps one of the most interesting aspects of working in virtual worlds is the fact that avatars are not constrained by the norms and restrictions of the real life in terms of physics, physical presence, time zones and distance. Virtual worlds suspend many of the factors that can be a major detriment to a fully collaborative environment.

These lack of barriers have allowed the MuniGov organization to expand with only minimal effort on the part of the participants. From the beginning, the group established basic unwritten rules of “decency” (i.e. must be clothed, personal attacks will not be tolerated, etc.) with regards to the format and content of the discussions. These “common sense” baselines have proven to be all that was necessary to ensure an ongoing dialog that was both productive and appropriate.

Many of the group members have embraced the flexibility of the platform by customizing their avatars and their workspaces to meet their business needs and personal tastes. New members are offered assistance in the basics of appearance and etiquette for group meetings and conferences.

During meetings, the group has a very casual, conversational tone that has less of a boardroom feel and more of a cocktail hour sense of informality. Although the meetings are usually led by an agenda, they tend to be very flexible in order to accommodate changes, urgent questions or side discussions. The meetings typically self-adjust during the course of the discussion to address the hot topics of the day. Members discuss for example implementation challenges using new tools, share their experiences to help each other out or talk about new IT developments and opportunities for local governments, such as the recent announcement by Google to provide broadband access for municipalities (Google, 2010; Helft, 2010). Attempts are made to gather the primary crucial information in the form of meeting minutes. However the spirit of the discussion itself is usually the most valuable aspect of participation.

Appearances of the avatars in SL are a decision of each member. Contrary to real life etiquette for business meetings or office dress code, MuniGov20 does not prescribe any dress code. On the contrary, members are experimenting with different appearances and without the name indicator flowing over each avatar, it is difficult to recognize people from meeting to meeting. As one of the members notes (Greeves, 2009):

"So after a few months in world, I made a conscious decision that I was no longer going to be human. I decided that it was very important to make a strong first impression on the new govt types that came in world to see what things are all about. I wanted to convey that you can get both things in world. That is to say, when new govt users speak to me, they hopefully hear and feel the conviction in my voice and see the practical potential of SL. I want them to see that someone who is extremely serious and committed

to exploring the real world potential of virtual worlds can appear as a wolf; call it going for the “shock value” I suppose. If they see that if I can be a wolf, I could just as easily wear turn out gear and learn how to fight a fire, design a 3D tourable mock-up of a new library or sport my scrubs and learn how to perform an appendectomy. So yes, I my friends, am an admitted canis lupus. Mind you I am not frequently prone to scratching for fleas or howling at the moon, but there is definitely a distinctive furriness to my face.”



Figure 8: "Yeah, But Do You Have to Be a Wolf?"

Steep learning curve

Virtual worlds are by far the most extensive technology within the social media realm today. This has proven to be a double-edged sword for those, such as MuniGov2.0, who advocate for the adoption of these tools. The environment is immersive and comprehensive. In many ways, the opportunities are limited solely by a user's imagination and perseverance. However, with the extensive flexibility of SL comes a tool set that can be daunting to master for newcomers and might be challenging for beginners with technology. The challenges can include the navigation to specific destinations, moving and flying in-world, sitting down at a conference table, activating talk tools, local vs. public chats and friending other avatars, as this account of a newcomer illustrates:

“I thought if I’m gonna do a presentation on Twitter and present this white paper [authors’ addition: to the MuniGov2.0 group], I need to at least know how to move around and sit down, and talk and, you know, make some gestures. And so I, practiced all that. And then when we got in a group in the setting, I went to a couple meetings beforehand just to get the lay of the land, and then do the presentation. And it was funny, my computer was just not responding very well. As I kept pushing my arrow button to get to a place where I could sit down and kind of talk and you know be suave and all this in Second Life all at the same time. So I ended up pushing my arrow keys way too many times, and somehow I flew over the couch, out the window, and I landed in the water. And pretty soon my avatar’s looking at the water, thinkin’ I have no idea how to get out of the water. And I got an instant message from [member name oppressed] saying, would you like me to teleport you back? And I said, yes, please, that would be awesome.”

The MuniGov2.0 group established an Orientation Coordinator role in order to assist new participants with the use of the tools. This coordinator assists new users by establishing a schedule of hands-on orientation sessions to ensure that new users have a strong grasp of the core components of operating in the virtual world, including communication, movement, appearance, economics and building. Once completed, the new members are also encouraged to explore and interact independently with the platform. The group has found that this type of informal acclimation greatly improves a new user’s ability to successfully navigate the virtual world. Members appreciate the quick and uncomplicated help as one of the members stated:

“You’re out there, you just ask, ooh that’s cool, how do I do that? And somebody tells you. [...] They always help you out.”

Participation in MuniGov meetings requires the members to multi-task by following both written and audible dialog simultaneously, often about topics that may not directly be linked to each other. When a dozen or more participants are engaged in the conversation, the flow can move very quickly and new users may have difficulties keeping up with the conversation threads. In addition, members are using a multi-channel approach to communicate during the meeting; the official public chat addresses different topics, but also directly addresses different

members, so that sub-conversations emerge. Besides the official voice and text conversation, members also use private direct chats, Skype chats, or sharing documents:

"I would say it's an extension of a real life meeting because we have several alternate ways of communicating while the meeting's going on, that you don't have in real life. If there's 10 people in the meeting, I can be having side conversations with three or four of them at the same time that I'm listening to the main person. I can also be sending text messages to everyone at the same time as the person is speaking. So you're communicating on at least 3 if not 4 levels at the same time, while you're in the meeting. And it can get a little, it can get a little complicated when you do that. It, and it's actually fairly strenuous to do that. But you can get an awful lot done. Because if we're talking about a topic, and I know this other person has talked about it before, I can send them an instant message, and just the two of us can talk about not voice talk, but like talk via text messaging through the interface, while the rest of the conversation's goin' on."

The benefits of conducting regular meetings in the virtual platform have proven significant. MuniGov has reported improvements in the diversity and strength of communications across different levels of government and found a synergistic nerve center for collaboration and idea exchange in an informal environment that welcomes dialog and debate in a friendly and casual atmosphere. However, the nature of this atmosphere developed a significant professional bond between the members and creates a precedent for trusted exchange of ideas, opinions and advice as opposed to an official meeting environment:

"It's almost like going out to dinner with 'em, tell you the truth. [...] It's a lot nicer than getting on the phone, and it gives you opportunities to actually kind of meet with people, when you couldn't travel to meet them. You with, travel budgets being restricted, it's a nice, nice alternative to WebEx. [...] You know, Second Life is kinda like face-to-face meeting."

The group tries to overcome these challenges by encouraging newcomers to use direct messages whenever someone feels lost or confused. Moreover, they pause the dialog for the

benefit of new members. The goal is to be inclusive and to encourage questions and even tangents.

Visitors, lurkers and intruders

The MuniGov meetings are open and available to any SL resident who either finds the group on the grid or knows the Second Life URL. The search mechanism on SL indicates where several people are gathering and as a result random avatars visit MuniGov meetings. At times “lurkers” are stopping by who seem to be on the cusp of participation but have not yet committed to participate. The group opted for to hold open meetings without required speaking roles on open land using public chat, so that there is always an option that lurkers or intruders are disturbing the meetings without constructive contributions.

The group deals with these interruptions by pausing the meeting to greet visitors and encourages them to stay, listen and even to participate if they are so inclined. Although not used to date, the group has the option of moving the dialog to a private chat channel open only to MuniGov members if they feel the content is too sensitive to be broadcasted in an open chat forum.

There have only been two occasions in which the meetings were interrupted by “griefers” whose goal within SL is to disrupt gatherings and annoy people. The MuniGov group coordinators have the ability to forcibly eject and/or permanently ban SL users who engage in such disruptive actions. Although the group typically will try to convince griefers to voluntarily leave, they will use these tools when necessary in order to eliminate an unwelcome disruption.

Avatars are identifiable by their SL user name. The group is usually connected to each other and can therefore look up profile descriptions of avatars they might not visually recognize in case appearances have changed:

“Oh yeah, yeah. You can see who they are. I mean they all show up, you’re all looking at them, and you can inquire any of them and see what their profiles say and see who they really are. Typically we use something called hover text, which means that your name and your locality will sort of hover above you, in, in space, and you can, you can just look around the room and see who, who is there and what, from what locality. And,

you tend to get to know 'em. I mean you know, you get to know the people once you, when you meet with 'em on a weekly basis."

Accessibility and system requirements

Although SL has proven to be an effective forum to conduct meetings, the group recognized that some members have struggled to participate due to technology constraints. Second Life requires significant computing power. The intense graphics and communications channels can strain older processors. As newer, faster machines are released to market, the gap between technology requirements and technology standards are closing, albeit more slowly than many of the members would prefer. There are several “preferences” within SL that can be adjusted to reduce the burden on individual computer’s processing capability. These fixes were included in the MuniGov orientation as well as several online general “how-to” guides that the group refers new members to during their initial days in-world.

Many government organizations simply block access altogether to SL because it is ruled by most firewall applications as a “game”. Several members of the group spent extensive time and effort researching and documenting the true security threats posed by SL and ultimately were successful in showing that the business value of the application out-weighed the security risks. They then convinced their home organizations to open up the appropriate ports in their firewall to allow adequate access. Other members simply chose to install the client software on their home machines and participate in the regular meetings by logging on from home. Because of the value they obtained from the meetings, they choose to spend their own personal time and resources.

Conference on Second Life: Blending offline and online attendance

In addition to their bi-weekly meetings, the group decided to organize an online conference in SL (Williams, 2008). The goal was “*to move past the general "wouldn't-it-be-cool-if" discussions into providing tangible, valuable (and free!) resources to our members*” – as one of the members stated.⁶ There was a unanimous group decision to facilitate MuniGovCon09 and the group devoted many meetings and hours to the conference. The theme of the conference was

⁶ <http://billgreeves.com/2009/02/12/munigovcon09-the-first-virtual-conference-for-govt-by-govt/>

introducing Web 2.0 to the government community and MuniGov members met in SL and held one-on-one discussions via Skype to plan the conference. A collaboration site was used to share information and for conference registrations. Twitter, blogs, and social networks were used to help advertise the conference widely among potential interested public employees. Nearly 170 public managers and government IT professional registered for the conference. Many organizations filled a real-life conference room and watched the conference on the big screen via the virtual eyes of one avatar.

The conference organizers ran into different technical hiccups throughout the conference and in addition had to coordinate a large group of new residents who had little experience in navigating through SL. However, the MuniGov2.0 hosts and conference speakers showed tenacity, resourcefulness, and perseverance in working through the problems. The speakers at the event included public managers from local, state, and federal government offices, as well as higher education, who presented ideas and engaging topics relevant to Gov 2.0. An interactive Q&A session that engaged the audience with a panel of Gov 2.0 enthusiasts focused on several social-media related topics.

The main advantages of organizing a conference in SL were – as reported in the evaluation by the participants – savings in registration and travel fees to attend the sessions.⁷



⁷ For more information about the virtual conference see:
<http://www.publicworksgroup.com/blog/2009/04/munigovcon09/> and
<http://billgreeves.com/2009/02/12/munigovcon09-the-first-virtual-conference-for-govt-by-govt/>

Figure 9: Representative from NASA speaking at MuniGovCon09

Lessons learned and future directions

The group reported a myriad of lessons learned and ideas for future directions of the project.

Among the lessons learned was mainly the opportunity to learn about new collaborative technologies and network in form of informal meeting opportunities during the day: *"You can say 'Hey [name omitted], do you have some time, so sure, meet you there.' [...] That's huge in my business. Leveraging other people's knowledge and experience, you know, the only other way you can do it is hire a consultant."* Second Life as inexpensive way to discuss new ideas, share information about experiences and learn from each other in an informal way: *"...you've got a president who's telling people you've gotta make things transparent and open. And these tools allow you to do it inexpensively."*

The group members were able to apply these lessons learned immediately to their daily work life:

"You know... we, we were already moving on a lot of the Web 2.0 things. I think some of the approaches, and some of the technologies definitely, you know, I brought back, and hey you guys need to look at this, and hey you guys need to look at that. [...]. I don't think I would have been as well versed in Web 2.0, and been as strong an advocate for it, had it not been for the MuniGov group. Because [member name omitted] and all the other people that put this together, you know, they've done a really good job of making the information very easily accessible, very understandable, and it's given me an opportunity to really focus on it. And I would not be nearly as strong an advocate for it, were it not for this, were it not for this group."

Besides these positive aspects of informal collaboration, innovation diffusion and learning from each others experiences, the group encountered several obstacles to the use of SL in local government – as one of the MuniGov20 members stated:

"The biggest obstacle is that people do not believe in this. The... existing IT management structure believes that, still believes for some God knows what reason, in the waterfall

development methodology, and this approach just runs counter to it. Yet, we've been able to show that using this, we're saving about 60% of our development cost, using collaborative natural approaches as opposed to using waterfall methodologies. I mean, I can just show the dollars. The problem is of course, you have people who still believe, that that's a better way to go, which is amazing, because even NASA doesn't use it anymore."

Another member said:

"For example, the city of [name oppressed], information technology people have locked down our system. So the first concern that they have is about information security. And so there are a lot of, so it's a very tight system, which means it's difficult to... access some things, and Second Life right now is one of them, because they have concerns about potential risks to the city's IT system. And when we held our conference in Second Life, which was last April, several of us in the city had requested to load Second Life for us so we could do it at work. And they found issues and refused to do it."

There are several different directions in which the group could take the MuniGov2.0 idea. Some of the future directions and plans that the group has can be summarized as follows:

- Continue to explore the use of virtual worlds and their practical applications to the needs of government, with intentions of using collaboration tools to develop shared virtual world resources available to all governments.
- Continue to provide free or extremely low-cost orientation and learning opportunities for governments using virtual worlds as a conference and training vehicle.
- Continue to share government best practices and lessons learned through regular meetings and gathering events and virtual displays. Opportunities for intergovernmental crossjurisdictional sharing of experiences and best practices.
- Explore the use of virtual worlds to engage the public by offering access to government staff and resources for civic education: Online participation, similar to the cases mentioned in Orange County Florida and Alameda County California.
- Offer virtual world spaces managed by government where agencies can set up their own cost effective spaces for public engagement, staff training, research, and networking.
- Recommendations for the use of Second Life in local government

The use of SL in government comes with challenges and specific requirements that are oftentimes not as intuitive as the use of other social networking sites. Therefore, MuniGov recommends that government should continue (or in most cases begin) to explore the value of virtual worlds as a tool and resource for communication, training, education, simulations or collaboration opportunities. Second Life provides a very cost-effective alternative to the processes that can sometimes be labor- or cost-intensive in the real world (i.e. recruiting, face-to-face meetings, training for public safety, operating and engineering, etc.). Face-to-face interactions can partially be replaced with meetings in SL, supported with a multitude of additional tools, such as a parallel Skype videoconference or chats. While we acknowledge that SL cannot replace the advantages of personal interactions in the real world, it can still be used for decision preparations, informal exchanges, information sharing and ad-hoc interactions among geographically dispersed communication partners.

MuniGov members see highly interactive and creative examples for all the above mentioned needs that governments and their stakeholders have created. The more virtual resources are built, the easier it will be for citizens to explore their value. For example, the use of exact replicas of cities or municipalities in SL combined with an applications such as SeeClickFix.com, where citizens can log in and report a road to be fixed or where they could book a camp site in the county park.

Second Life allows government organizations to reach previously inaccessible audiences. Similar to the surge of Facebook, Twitter and YouTube users in government, the public sector can learn from the campaign success of Barack Obama's presidential campaign. Social networking services became part of the overall Internet strategy to reach citizens who would otherwise not be part of political processes. Second Life can enhance interactions with so-called digital natives; access and interaction to otherwise underserved parts of the population can be facilitated using a fun and interactive way to reach younger citizens "where they are" (Carrizales, 2009; Palfrey & Gasser, 2008).

Besides reaching out to citizens in new ways,⁸ (project-based) communication with other stakeholders such as contractors or nonprofits can be facilitated in SL. During a large or complex planning project direct interaction with the project managers in a virtually recreated layout of the

⁸ <http://www.publicworksgroup.com/blog/2008/07/civic-forum-launch/>

new design facilitates ad-hoc interactions with both designers and citizens. Brief meetings in SL can replace travel to and from a meeting site, scheduling, etc. and help all project partners to stay on track.⁹

This project has shown that the use of SL on the local government level is still in its infancy and municipal organizations can learn from the experiences and results produced on the federal and state level. It also shows that collaboration and collaborative networks are necessary in times of budget cuts and the need for local government innovation. On all levels of government, public managers are facing the dilemma of broader mandates to fulfill the mission and need to be creative and innovative at the same time. The example of MuniGov2.0 shows that SL (in combination with other Web 2.0 tools) can help public managers to reach out to their counterparts across the country to help each other by sharing information and supporting each others learning needs.

Please join and participate in MuniGov2.0 to share ideas and discussions with a group of like-minded peers:

Second Life location [<http://slurl.com/secondlife/Second%20Earth%204/128/128/32>]

Google iSite for more information [<https://sites.google.com/site/munigov20/>]

⁹ <http://www.publicworksgroup.com/blog/2008/03/second-life-build-as-a-deliverable/>

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