Analyzing and Modernizing Victoria City Council's Communications

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INTRODUCTION

In both corporate and personal settings, technology has improved the way we find, share, and use information and data. Our goal with this research is to discover what methods the city council of Victoria currently uses for collaboration and communication, including but not limited to council meetings. After discovering and expanding on these meetings, we then plan to provide recommendations on what technologies they can use to increase collaboration and streamline communication. Our research questions are as follows:

- What technologies already exist or are being used to help city councilors in their meetings, for documents sharing and communications?
- How can we improve communication between city councilors?
- What issues are they currently facing with the present technology?

One area we want to focus on is how council meetings are prepared and conducted. We want to take a look at what technologies are used to prepare for the meetings, which includes how items are put on the agenda and how bylaws are introduced and modified. We also want to see what technologies are used during council meetings to facilitate discussion and share information.

Our methods of gathering information are to interview city councilors from Victoria and Vancouver, as well as attend some council meetings to see what their current practices are. After looking at the technologies currently being used, we will make recommendations for alternative technologies that are available.

Much of the existing research about city governments is about how to improve government-citizen connections. However, in our research we want to focus on inter-governmental collaborations, and how a city government works together to solve problems.

RELATED WORK

Before discussing the methods to analyse the various methods used in Victoria Council currently and the effective methods which can be used to modernize some of the processes, we present the usage of CSCW in some City Councils which helps them to speed up their decision processes on policies and how CSCW technologies are helpful in conduction of meetings in public sector areas.

CSCW Use in Government and Politics

In the late 20th century, an explosive boom in internet utilization and a swift evolution of the e-commerce by private sector stimulated the public sector to conceptualize the "e-government" initiative to connect electronically with the citizens in a better way[1].

The growth from e-government initiatives can be explained by a two-stage model which exhibits 3 different kinds of governmental relationships:

1. **Government to Citizen (G2C)** which includes many services like online payment of bills, taxes, voter registration, and business permit/license applications.
2. **Government to Business (G2B)** which includes online offerings and purchase for property, equipment and office supplies.
3. **Government to Government (G2G)** which is the main category and the purpose of our study within Victoria City Council. This includes services such as: enabling a project team to collaborate using CSCW technologies; provide news, information and online report generation or procurement tools; and publishing documents and manuals online to reduce printing costs.[2]

Furthermore, let us also have a quick glance on the political dimensions of CSCW, which was "used in collective decision making bodies in a pure political context i.e. in City Council".
The Stuttgart City council used the Cuparla CSCW environment in 1998 to improve access to information and collaboration between council members. It is designed with the aim to support a political entity which is non-homogenous in working context i.e. different working styles, communication structures, leadership styles and social behaviour. It supports functions like information, communication, coordination and collaboration.[3,4]

Figure 1: Cuparla Main Menu

In other city councils, various computer-supported tools are used to ease the council work as shown in the following examples:

- Preston City Council has selected Cadcorp SIS – Spatial Information System [M1] desktop and Cadcorp GeognoSIS web-based software which provides data migration solution together with the ability to read and display multiple graphic and database formats without incurring any additional cost [5]
- Replacement of Microsoft software with open source by Munich City council has saved a lot of money of council by reduction of IT costs and savings on proprietary licences [6]
- IVS-City Council software is used in city council meetings during the voting process which is done with keypads [7].

Furthermore, some City councils work with software companies to provide solutions to public-sector requirements. One of the example of this is Peterborough City Council, who is working in association with XCD HR which provides the means to automate a large number of manual HR processes of council. This automation of work allows employees to spend less time in doing their paperwork and now they can give more time on the crucial work of their jobs allowing them to utilize their skills to the absolute maximum, which consequently improves internal operations and services to the community. [8] The business benefits due to this coalition are:

- Immediate benefits/efficiency gains across the council (for HR, Managers and Employees).
- Improved reporting capability with 24/7 up-to-date decision making data available to appropriate audience supporting CMT.
- Improved access to information to support a more mobile workforce using current communication tools – phone, tablet, pc, from anywhere via the cloud
- HR's workload has become far more manageable and CIPD skills put to better use
- Less chasing is required due to the approval process and email alert reminders on managers and employees[8]

CSCW in Meetings

Schummer notes that there are three distinct facets of designing an electronic face-to-face meeting system:

- "the peopleware perspective, the design of social processes that are executed by team members,
- the generic groupware perspective for designing supportive software tools, and
- the roomware perspective that considers the configuration of artifacts that constitute the tangible meeting space" [9].

He also lists a number of factors that influence whether people are effective in a meeting, namely: motivation and reliability, clear goals, information, context, focus and efficiency, trust and openness, respect, communication, participation and results [10].

There are a number of electronic meeting systems currently being used, and we will consider two here. Benyon and Mival note the use of blended spaces in some meetings, where the technology and the physical space are designed in tandem [11]. These spaces allow for a more ergonomic environment for participants, and create increased collaboration opportunities. Figure 2 shows an example of a blended space using tablets, keyboards, laptops, wall-mounted touchscreens, video-conferencing, and ambient lighting that can be changed using room controls [12].

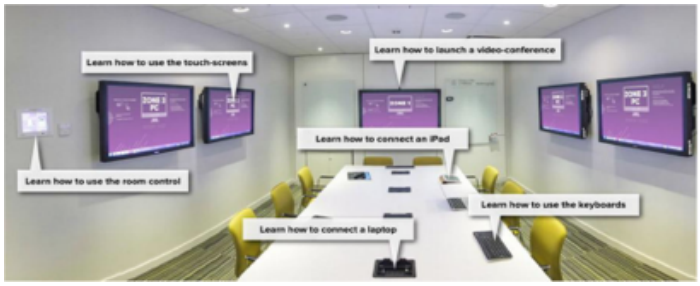

Figure 2: A blended space meeting room.

Another system, put forward by Sarda et al., engages a real-time feedback system to track speaking behaviours of participants in meetings [13]. According to Sarda, "[t]alking mannerisms of individuals play an important factor for meetings to be productive and achieve certain objectives" [14]. Thus, keeping track of who is talking and when could help a meeting run more efficiently. To this end, they designed and implemented a recording-based system for keeping track of who speaks and when, in order to more fairly distribute the airtime.

Group Dynamics

In order to fully study the communication of Victoria City Council, it is important to understand communication dynamics of groups, and to understand why innovation is important for the council. Victoria operates as a mayor-council system, as opposed to the council-manager system that is also used in some municipalities [15]. This means that the mayor has certain powers. However, more study will need to be done to assess the powers of the Victoria city mayor. As Cheyne notes, there are "weak mayors" who do not have veto power, for example, and "strong mayors" [16]. The website of Victoria city council contains a number of documents such as the strategic plan and annual reports, but it is not immediately evident whether it contains information about the structure of Victoria city government. This information may need to be obtained through email exchanges with the city.

The City Council of Victoria is a government entity that can be described as a group of people working together. The study of groups has been undertaken for decades, and here we will examine some of the characteristics. First, as Poole notes, there is always a tension between focusing on the group as a whole, versus on the individual members [17]. Group members' characteristics interact to produce group characteristics, and this forms a complex relationship at many levels "which leads to non-independence of individual data" [18]. Moreover, "some members influence each other strongly, whereas others are isolated from the group and exert little influence, and still others are somewhere in between." This complex nature of group dynamics means that any study will need to take into account the behaviour of the individual as well as the communications of the group.

Second, the group dynamics change over time. For example, a guest may sit in at a council meeting, and this may change the way members interact for that time. This means that most collection methods, which often are done only once in studies, cannot adequately capture the full scope of communication. In order to mitigate this, our group will attend two consecutive council meetings, and note any changes between them. Thankfully, the membership of council remains effectively fixed for four years, so we will not face the challenge of tracking membership variation. Also, the council is relatively small, so many of the problems that are associated with observing communication behaviour of large groups will not be paramount.

Ihrke optimistically notes that local governments are more likely to innovate than governments at the state or federal level because of "their small size and capacity to make decisions quickly and decisively" [19]. According to Haus, "cities hold the potential to construct, articulate and promote the common good of their societies by forming policy agendas" [20]. So the potential is there to influence the common good with our research by focusing on city council. Further, Walker surmises that innovation is a core task of public institutions and that "innovation has been promoted around the world as a key tool to improve public services" [21]. However, local governments also get a lot of pressure to "do more with less" [22]. Thus, we will incorporate a cost estimate into our final technology recommendation to the council, and will weigh the benefits of the technology with the cost.

Our methodology will be interview questions posed to city councilors, as well as attending meetings, and Poole notes that group observation and asking questions of individual members are the two best ways to obtain group dynamics information. Specifically, they recommend in-depth interviews with open-ended questions in order to "obtain the symbols that members naturally use to describe their behaviour" [23]. However, these interviews may procure false information because what members say may not match their actual behaviour.

METHODOLOGY

We will be collecting data from two main sources. Our primary method of collecting data will be through interviews of city council members, with our secondary method being through observing public city meetings. Performing the latter data collection method serves as a form of risk mitigation for the first; should city officials be unable to provide time for us to conduct interviews, we still have one facet of their organization to study.

Our goal is to conduct three 30 minute interview sessions. The council members that we will be interviewing will be decided primarily on availability, as the time available for this research is limited. We want to interview two council members from the city of Victoria as well as one member from the city council of Vancouver, so that we have comparison data with a larger city.

We will also be attending public city meetings to observe how computers are used to facilitate the meetings, if at all. These meetings typically occur every two weeks, and are held at City Hall in Victoria on Thursdays at 7:00pm. Given the time frame of this project, the two meetings that we will be attending are on October 15th and October 29th. The primary goal with attending these meetings is to observe how the meetings are conducted: what technology do they use to administer and share documents, how do they allow for crowd contribution (if they do), and how is discussion moderated and facilitated, amongst other metrics.

MILESTONES

The following table outlines what objectives we plan to accomplish, and by which dates we plan to have these objectives met.

Date	Milestone
October 15	City Meeting 1
October 16	Project Proposal Finished
October 19	Interview template finalized Requests for interview sent Ethics application complete
October 29	City Meeting 2
November 4	Oral update on project
November 6	Interviews completed
November 13	Interim Project Report
December 2	Project Presentation
December 4	Project Completed

Table 1: Milestones for research project

Due to our time constraints, the interviews have to be completed relatively quickly. We want to allow for as much time as possible in case we need to reschedule an interview, as that is our primary source of data. Two other public meetings occur on November 12th and November 26th, but given that interviews are our primary source of data we felt that the two meetings in October would provide enough insight on the city's current state of technology integration.

EXPECTED RESULTS

After careful study of Victoria city council and its processes, we expect to find out exactly what technologies the council is currently using, and its various applications in their day-to-day communications as well as at council meetings. We anticipate discovering whether or not the needs of the council are currently being met with the technology. Then we expect to be able to make recommendations of software platforms that shore up any weaknesses we find in their communications processes, in order to make them more efficient.

As researchers, we expect to gain greater knowledge of Victoria city council and its processes as they relate to CSCW, as well as how the council relates to each other. We further expect to show city council what technology is out there, in order to provide to them a strong base to integrate further technologies in the future.

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