

Constitution of Representative and Reliable Web-based Research Samples: The Challenges of Studying Blogs and Online Socio-Political Networks

Vincent Raynauld, School of Journalism and Communication, Carleton University
Thierry Giasson, Département d'information et de communication, Université Laval
Cynthia Darisse, Département d'information et de communication, Université Laval

Groupe de recherche en communication politique, Université Laval

Abstract

The growing adoption of Web-based user-generated publication platforms such as weblogs, more commonly known as “blogs”, social networking services (SNS) like *Facebook*, *MySpace* as well as *Second Life* and, more recently, microblogging or status updating tools like *Twitter* or *Jaiku* by the mainstream online public has contributed in recent years to the in-depth redefinition of potentially “parapolitical” Web-based mix-media information flows and social relations in different national contexts (Dahlgren, 2005: 153; Bode, 2008: 7; Hermanns, 2008). While several mass communication scholars have avoided Internet-related projects for primarily methodological reasons such as the incompatibility of their research approaches (Schneider and Foot, 2004: 114; Jankowski and Van Selm, 2008: 5; Nosek, Banaji *et al.*, 2002: 168; Barbeite and Weiss, 2004: 1), an increasing number of social scientists are now tailoring their quantitative and qualitative investigation techniques to address the specificities of this constantly-evolving media environment. Based on an exhaustive and multifaceted study of the online and offline socio-political behavioural profile of Quebec-based French-speaking political bloggers conducted through a Web-only secure survey in April 2008 (Giasson, Raynauld *et al.*, 2009; Giasson, Raynauld *et al.*, 2008), this paper offers a detailed assessment of several multidimensional concerns directly or indirectly linked to the constitution of representative research samples through non-probabilistic Web-based viral or, more broadly, decentralized strategies. The highly-networked and transient nature of online socio-political communities requires the adoption of flexible sampling procedures adapted to the structural specificities of this research context. Ultimately, this paper argues for the on-going development of research processes tailored to the constantly-evolving architecture of the World Wide Web and the characteristics of social media tools.

KEYWORDS: Viral sampling, Snowball sampling, Web, Weblogs, Methodology, Quebec, Canada, Political communication.

Paper presented at the annual meeting of the Canadian Political Science Association, May 27th-29th 2009, Carleton University, Ottawa, Ontario.

Preliminary version. Do not cite without authors' permission.

The evolution and progressively intensifying use of the Internet and, more importantly, user-generated Web-based social media channels, also known as Web 2.0 tools (Yang, Chen *et al.*, 2007: 2; Xenos and Foot, 2008: 57; Kushin, Yamamoto *et al.*, 2009: 3; Harrison and Bartel, 2009: 157-158; Meijer, Burger *et al.*, 2009: 99; Hazlewood, Makice *et al.*, 2008), by an increasingly large segment of civil society have contributed throughout the last twenty years to the in-depth reconfiguration of online and, to a certain extent, offline potentially “parapolitical” (Dahlgren, 2005: 153; Bode, 2008: 7; Hermanns, 2008; Miller, 2008: 164) mix-media information mass production, “coproduction”¹, acquisition and dissemination processes as well as social interaction or, more broadly, public deliberation practices (Delli Carpini, Cook *et al.*, 2004: 316; Backstrom, Huttenlocher *et al.*, 2008: 44; Bansal and Koudas, 2007; Kushin and Yamamoto, 2009: 4-5; Mislove, Koppula *et al.*, 2008: 25; Kushin, Kitchner, 2009: 3; Bian, Liu *et al.*, 2008; Sutton, Palen *et al.*, 2008; Graber, Bimber *et al.*, 2002: 3-4; Foot and Schneider, 2006: 36; Burnett and Jaeger, 2008) in different national contexts such as Canada (Gibson, Howard *et al.*, 2000; Small, 2008a; Milliken and O’Donnell, 2008), several European countries (Pedersen and Saglie, 2005: 359-360; Norris, 2008: 124; Lusoli, 2005: 247) as well as South Korea (Woo-Young, 2005: 926; Kim, 2006: 36; Han, 2007: 59).

While the digital divide has not yet fully receded in many highly-connected nations such as the United States² where 22% of adults reported never accessing the World Wide Web or not having an Internet connexion at home in 2005 (Fox, 2005: i; Bennett, Wells *et al.*, 2008: 24; Xenos and Moy, 2007: 705; Schlozman, Verba *et al.*, 2009: 4; Carrizales, 2009: 351; PEW Global Attitudes Project, 2006; Chinn and Fairlie, 2006; Guillén and Suárez, 2005: 681; Korupp and Szydluk, 2005: 411), other studies have shown steadily rising levels of Internet adoption and frequent utilization among the mainstream public in many Western nations. For example, a 2004 PEW study revealed that 88% of U.S.-based Internet users believed the Web played a role of varying importance in their “daily [media] routine[...]” (Fallows, 2004: 2). Two years later, 73% of U.S. adults, which represented approximately 147 million individuals, were regular Internet users, a sharp increase from a similar survey conducted in January 2005 which showed that 66% of the U.S. adult population was actively using the Web (Madden, 2006: 3). In December 2008, 74% of U.S. adults were online (Jones

¹ The concept of “coproduction” can be defined as “the joint production of Web-accessible digital material by disparate actors” who can be “organizationally independent from each other” (Foot and Schneider, 2002: 228; Foot and Schneider, 2006: 35; Marschhall, 2004: 232).

² It is important to point out that other authors and governmental organizations believe that the digital divide has disappeared in the United States (Kvasny, 2005).

and Fox, 2009) for various reasons. For example, 55% of U.S. adults, or 74% of the U.S. online population, reported going online for political information or commentary on the U.S. Presidential campaign in 2008 and 38% used online media tools to access and disseminate politically-oriented mix-media digital material or to take part in Web-based political discussions (Smith, 2009: 3).

A steadily growing proportion of the Canadian citizenry is also spending more time online. In 2007, 78% of individuals older than twelve living in Canada were regular Web users, up from 72% in 1994 (Zamaria and Fletcher, 2007: 6), and 88% went “online at one time or another” (Zamaria and Fletcher, 2007: 37). Small (2008a: 54) determined that “the Internet [could be seen as] [...] an important source for current affairs and political information for Canadians” in 2008. In the province of Quebec, 74% of residents were online in December 2007, up from 68% in July 2007 (CEFRIQ, 2008: 13). 28% of Quebec-based Internet users also reported regularly turning to the Web for political news and opinion throughout the 2007 Provincial election (CEFRIQ, 2008: 64). However, Quebec remained in 2008 the Canadian province with the lowest connectivity levels within its population (Small, 2008a: 54). In fact, previous studies have shown that Quebec has systematically been among the Canadian provinces with the weakest Internet penetration rates in the decade (Dryburgh, 2001: 2; Shade, 1999: 29). Moreover, only 28% of Quebec-based Internet users had a high-speed access while 39% in Ontario and 47% in Alberta and British Columbia did so in 2005 (Rideout and Reddick, 2005). The underdeveloped nature of the digital communication infrastructure of Quebec’s rural regions where a large percentage of the population resides (Institut de la Statistique du Québec, 2009) and the sharp differences between the Web consumption behaviour of Anglophone and Francophone Web users are considered as important contributing factors to this digital divide (Canadian Internet Project, 2008; Small, 2008: 54). Furthermore, the Canadian *Office of the Commissioner of Official Languages* points out that “Francophones[,which represent 23% of the Canadian population (Small, 2008: 54; Canadian Internet Project, 2008),] are less likely to use the Internet than Anglophones” and “are less satisfied than their Anglophone counterparts with the provision of content in their mother tongue” (Small, 2008a: 54; Clavet, 2002: 3; Shade, 1999: 30).

Many scholars (DiMaggio and Hargittai, 2003; Lenhart, 2000; DiMaggio, Hargittai *et al.*, 2004; Wyatt, Henwood *et al.*, 2005: 208; Shelley, Trane *et al.*, 2006: 37-38; Zittel, 2003; Rhee and Kim, 2004; Thrane and Shulman, 2007: 336-337; Fox and Madden, 2005: 1; Herring, 2007: 88) point out that the upcoming “generational succession” is expected to significantly bolster connectivity levels as well as Internet-related knowledge among the

population in many Western countries. Moreover, others argue it could potentially lead to the progressive intensification of online politicking (Xenos and Foot, 2008: 52; Shelley, Thrane *et al.*, 2006: 230). Indeed, while young citizens have progressively shied away from conventional forms of political engagement such as voting and signing petitions like older generations, they are more likely to engage in formal and informal Web-based politically-related activities due in part to their heavy exposition to online technologies³ which provide “attractive ways” to do so (Xenos and Foot, 2008: 52; Ester and Vincken, 2003; Cassell, Huffaker *et al.*, 2006: 436; Bennett, Wells *et al.*, 2008: 9; Bennett, 2007; Quan-Haase, Wellman *et al.*, 2002: 1; Livingstone, Bober *et al.*, 2005: 288; Hargittai and Hinnant, 2008: 604; Montgomery, Gottlieb-Robles *et al.*, 2004: 6-7; Delli Carpini, 200: 347). As noted by Bennett (1998: 744), “what is changing in politics is not a decline in citizen engagement, but a shift away from old forms that is complemented by the emergence” of transformative political communication, persuasion and mobilization ways that can be linked, for example, to the rise of new communication platforms which can directly “contribute to the formation of political understanding and political identity” among young voters, more broadly known as the emerging “youth civic culture” (O’Neill, 2007: 25; Ester and Vincken, 2003; Saunders, 2007: 25; Montgomery, 2007: 28; Stolle and Micheletti, 2005: 7). However, several supporters of the “reinforcement hypothesis”, a situation also known as the “no-change” scenario (Strandberg, 2008: 224), believe the Web can maintain or even strengthen pre-existing offline socio-political participatory inequalities (Scheufele and Nisbet, 2002: 56; Fuchs, 2009: 46; Scholozman, Verba *et al.*, 2009: 4; Kenski and Strout, 2006: 176; Hooghe and Teepe, 2007: 966-967; Best and Krueger 2005: 186; Graber and Smith, 2005: 487).

The broad objective of this paper is to put forward an in-depth characterization of several methodological challenges and opportunities linked to the study of political blogs and social media channels such as Web-based social network services (SNS) and other microblogging or social updating tools which have experienced a “meteoric” growth of their user population in recent years (Lento, Welser *et al.*, 2007; Lenhart and Fox, 2009; Kushin, Kitchner *et al.*, 2009; Hazlewood, Makice *et al.*, 2008; Lewis, Kaufman *et al.*, 2008: 330; Backstrom, Huttenlocher *et al.*, 2006: 44; Williams and Gulati, 2008b; Pfeil, Arjan *et al.*, 2009: 643), even becoming one of the “most popular online destinations” on a global scale (Hargittai, 2007; comScore, 2007). For instance, 35% of U.S. adults had an account at least one Web-based social networking site in December 2008, up from 8% in 2005 (Lenhart,

³ Several authors argue that younger generation of citizens can be seen as “digital natives” (Bennett, Maton *et al.*, 2008: 775; Bennett, Wells *et al.*, 2008: 2).

2009: 1). More specifically, *Facebook* had 21 million registered users logging in approximately 1.6 billion page views every day in 2007 (Ellison, Steinfeld *et al.*, 2007). In 2008, it was the “sixth most-trafficked website in the world” (Lewis, Kaufman *et al.*, 2008: 330). More broadly, *MySpace* and other similar social networking services had over 100 million users in 2008, “many of them adolescents and emerging adults” (Boyd, 2008b; Subrahmanyam, Reich *et al.*, 2008: 420). A recent PEW survey also determined that 11% of U.S. online adults periodically used *Twitter* or other Web-based status updating tools, also known as “microblogging services”⁴ (Java, Song *et al.*, 2007; Small, 2008b: 87), in December 2008, up from 9% in November 2008 and 6% in May 2008 (Lenhart and Fox, 2009: 1). Some authors (Lenhart, 2009: 1-2; Lenhart, Madden *et al.*, 2007) have found a sharp generational divide among SNS users in the United States. While 75% of U.S. Web users between 18 and 24 and 57% between 25 and 34 had a public or private profile on social network sites, only 30% of U.S. Internet users aged between 35 and 44, 19% between 45 and 54 as well as 10% between 55 and 64 were active on these media platforms in December 2008 (Lenhart, 2009: 4-5). However, other scholars point out that young Web users are “nowhere near as frequent users” of social media channels “as some commentators have been suggesting in recent years” (Kennedy, Dalgarno *et al.*, 2007: 522).

The progressively rising popularity of social media channels has led to the production of a growing body of scientific work (Lewis, Kaufman *et al.*, 2008: 330; Hargittai, 2007) tackling a wide range of issues such as social relations and identity formation (Walther, Van Der Heide *et al.*, 2008: 30-31; Hargittai, 2007; Lampe, Ellison *et al.*, 2007; Liu, 2007; Tufekci, 2008; Dotah and Boyd, 2004), education (Coutts, Dawson *et al.*, 2007; Hewitt and Forte, 2006; Baird and Fisher, 2005; Wheeler, Yeomans *et al.*, 2008) as well as formal and informal political communication, persuasion and mobilization (Boyd, 2008a: 141; Williams and Gulati, 2007; Kushin and Kitcher, 2009; Williams and Gulati, 2008a: 12; Williams and Gulati, 2008b; Kushin and Yamamoto, 2009; Gueorguieva, 2007; Sweetser and Lariscy, 2008: 176). Beyond weblogs which have been extensively studied in recent years, social media services like *Facebook* and other Web-based networking sites still remain an “understudied [...] [communication] [...]” phenomenon (Ellison, Steinfeld *et al.*, 2006; 2007; Gaines and Mondak, 2008: 19; Sweetser and Lariscy, 2008: 181; Hookway, 2008: 94; Kampitaki, Tambouris *et al.*, 2009). More research is needed to address specific quantitative and qualitative questions such as what individuals “do on these sites, whom they interact with

⁴ Microblogging can be defined as “a form of blogging that lets you write brief text updates (usually less than 200 characters) about your life on the go and send them to friends and interested observers via text messaging, instant messaging (IM), email or the web” (Java, Song *et al.*, 2007).

on them, and how their social networking site use relates to their other online (such as instant messaging) and offline activities” (Subrahmanyam, Reich *et al.*, 2008: 420; Backhouse and Canberra, 2007: 60; Caverlee and Webb, 2008)⁵. Additionally, social media channels could provide a “rich and attractive” research environment comprising an important quantity of multidimensional data that could be used for the enhancement of the existing knowledge on the structure and inner-workings of social networks (Boyd and Ellison, 2007; Ackland, 2008; Frantz and Carley 2008: 2; Boyd and Ellison, 2007; Lewis, Kaufman *et al.*, 2008: 330; Watts, 2007; Beer, 2008: 525; Gaines and Mondak, 2008: 18), could “expand[...] and diversif[y] [...] [researchers’] available subject pool” (Gaines and Mondak, 2008: 19) and, more broadly, could become an important asset in social scientists’ investigation toolbox (Hookway, 2008: 94; Ackland, 2008; Moorman, 2004: 14; Gaines and Mondak, 2008: 17). However, social networking services have several downsides such as the presence of highly-customable privacy filters preventing researchers from collecting uniform data (Gaines and Mondak, 2008: 18). Also, the data collected would comprise little information on “content, frequency or form of social communication” (Gaines and Mondak, 2008: 18).

More specifically, while a limited number of scientific publications focusing on broad methodological considerations linked to Web-based research have been published in recent years (Brügger, 2009: 128; Kim and Weaver, 2002: 518; Foot and Schneider, 2004: 114; Nardi, 2006; Jankowski and Van Selm, 2008), few have directly addressed the methodological challenges, or even roadblocks, posed by the exploration of Web-based social media channels (Boyd and Ellison, 2007; Ahn, Han *et al.*, 2007: 3; Dwyer, Hiltz *et al.*, 2007; Nyland, Marvez *et al.*, 2007). Moreover, the “slow pace of academic publishing” is not able to keep up with the constantly and rapidly evolving nature of these objects of study (Karfp, 2009: 6). Based on an exhaustive study of the online and offline socio-political behavioural profile of Quebec-based French-speaking political bloggers conducted in April 2008 (Giasson, Raynauld *et al.*, 2009; Giasson, Raynauld *et al.*, 2008), this paper offers a detailed characterization of several concerns directly or indirectly linked to the constitution of representative research samples through non-probabilistic Web-based viral or, more broadly, decentralized strategies. The sampling strategy used in this project was particularly important due to the need of a research sample providing an adequate assessment of the members of the political blogosphere of Quebec, a Canadian province characterized by its linguistic, cultural, economic and political specificities (Fournier, 2001: 335; 2002: 44; Rocher, 2002: 81).

⁵ For example, the use of social network services by politicians and elected officials needs to be better characterized (Compton, 2008: 4).

This paper primarily focuses on political blogs⁶ which can be defined as publicly-available and low-cost single or multi-authored user-generated Web-based publication channels with limited to no external editorial oversight periodically providing mix-media politically-oriented facts and opinions or, more broadly, “on-line commentary” often ideologically-driven or partisan in nature presented, updated as well as archived in reverse chronological order (Wallsten, 2005: 2; Sweetser and Kaid, 2008: 72; Hargittai, Gallo *et al.*, 2008: 72; Drezner and Farrell, 2008: 2) and regularly comprising content interactive features such as hyperlinks redirecting audience members to a wide range of digital material on Web-accessible resources⁷ (Xenos, 2008: 490; Bar-Ilan, 2005: 297; Farrell, Lawrence *et al.* 2008: 6; Blumenthal, 2005: 655; Sheagley, 2007: 3; Kerbel, 2007; Hinduja and Patchin, 2008: 129). While there are growing levels of distrust and discontent with conventional media organizations (Johnson and Kaye, 2004: 624; Kaye, 2005a: 76; Jones, 2004: 60; Cohen, 2004: 611; Spillman, Demo *et al.*, 2007: 11) and “institutionalized forms of political engagement are caught in a downward spiral” (Marie- \square n, Hooghe *et al.*, 2009; Dalton, 2008: 92; S; Sweetser and Kaid, 2008: 68), blogs are playing an increasingly pivotal role in the political communication landscape of several Western countries since 2001 (Sweetser and Kaye, 2008: 72).

According to Siapera (2008: 51-52), weblogs fulfill four (4) distinct politically-oriented functions that can have repercussions of varying importance on the political scene. First, they can influence agenda setting procedures in a bottom-up fashion, also known as “public agenda-setting”, and ultimately shape online as well as offline public deliberations (Siapera, 2008: 51; Woodly, 2008: 109; Drezner and Farrell, 2008: 5; Baum and Groeling, 2008: 349; Park, 2009: 252; Wallsten, 2007a: 580; 2007b). For example, bloggers often include in their coverage facts, arguments and analyses that are “either ignore[d] or underplay[ed]” in offline mass media channels and can sometimes directly question as well as influence their political news coverage (Jones, 2004: 65; Kiouisis, 2001: 395; Johnson and Kaye, 2004: 624; Kaye, 2005: 76; Xie, 2007: 3; Wallsten, 2006; Mackay and Lowrey, 2008; Lowrey and Anderson, 2005; Cassidy, 2007: 482; Xenos, 2008: 487; Wallsten, 2005: 1). The constant growth of the U.S. political blogosphere in recent years has forced the scientific community to reassess agenda-setting processes (Wallsten, 2007: 567). Secondly, bloggers can be the source of “independent investigations” that can contribute to expose political

⁶ While it was previously noted in this paper that weblogs have been extensively studied, it is important to point out that few scientific publications have been devoted to the analysis of the methodological challenges linked to the study of the blogosphere.

⁷ According to (Kim, 2007: 8), hyperlinks can have an enhancing effect on the quality of the online conversation.

scandals or controversies⁸ (Kuhn, 2007: 18; Siapera, 2008: 51). While “filter blogs” contain little to no novel content due to their heavy reliance on external material they quote through hyperlinks (Trammell and Keshelashvili, 2005: 8; Pedersen and Macafee, 2006: 155; Herring, Scheidt *et al.*, 2005: 145; Schmidt, 2007; Hookway, 2008: 93; Thelwall, Byrne *et al.*, 2007), other types of blogs can include in their publications original material that can affect conventional media organizations’ political reporting and political elites’ decisions (Carlson, 2007: 268; Wallsten, 2007b; Stevenson, 2007; Siapera, 2008: 51; Johnson, Kaye *et al.*, 2007a; Roth, 2004: 2). Thirdly, the blogosphere provides “netizens” (Newhagen and Rafaeli, 1996; Hargittai and Hinnant, 2008: 608) with an aphysical deliberative and collaborative Web-based multidirectional conversational arena where they can discuss and share mix-media information on politically-oriented issues (Siapera 2008: 51; Trammell, Williams *et al.*, 2006: 23; Drezner and Farrell, 2008: 11; Woodly, 2008: 114-115; Sunstein, 2008: 90; Veerger and Hermans, 2008: 38; Giasson, Raynauld *et al.*, 2008). Finally, blogs represent a bidirectional communicational bridge between the citizenry and the political as well as media elites such as political formations and candidates, “officeholders”, interest groups and journalists (Siapera, 2008: 51-52; Small, 2008a: 106; Coleman and Wright, 2008; Traynor, Poitevint *et al.*, 2008; Xenos, 2008: 485; Delli Carpini, 2000: 347).

Weblogs have become an increasingly credible information sources in the last five years. Johnson and Kaye (2004: 30) determined in 2004 that their content was “significantly more credible” than conventional media organizations’ news coverage (Trammell, 2007: 1256; Johnson, Kaye *et al.*, 2007a). A more recent survey showed that politically-savvy Web users regarded weblogs as “moderately credible [...]” sources of information in 2007 (Johnson, Kaye *et al.*, 2007b: 20). Finally, a 2009 study revealed they are seen as more credible than any other Web-based information resources (Johnson and Kaye, 2009: 179). As pointed out by Johnson, Kaye *et al.* (2008), the determination of weblogs’ credibility is a primarily “audience centered” process.

This paper’s first section provides a quick overview of the opportunities as well as challenges posed by broad Web-based research. The second section features an in-depth look at sampling issues linked to the study of decentralized online socio-political networks. More specifically, it offers an examination of national political blogospheres’ structural characteristics and their impact on sampling and, more broadly, research design. Due to the availability of a wealth of weblog-related studies which have been conducted throughout the

⁸ However, McKenna and Pole (2008: 100) point out that “most bloggers do not have the means or the access to write original stories”. In fact, Wallsten (2007b: 568) believes political bloggers “rarely” produce “original reporting”.

last decade (Sweetser and Lariscy, 2008: 181; Hookway, 2008: 94; Kampitaki, Tambouris *et al.*, 2009), this paper is able to offer an assessment of the methodological strengths and flaws of sampling tactics previously used. However, Karpf notes (2009: 6) that the current state of the weblog research is not adapted to the on-going and rapid evolution of these communication channels. Finally, this paper lists and details the concerns linked to decentralized or, more specifically, viral-oriented sampling techniques which inspired the methodology used to study of the socio-political behavioural profile of Quebec-based French-speaking political bloggers.

The opportunities and pitfalls of conducting Web-based political communication research

Social media investigation needs to be situated within a broader and more complex Web-based research framework. The World Wide Web and, more specifically, computer-mediated communication technologies have rapidly become widespread and “fashionable” multidisciplinary objects of study in the last two (2) decades due to their “widely recognized [status] as [...] salient feature[s] of modern society in the so-called ‘information age’” (Kim and Weaver, 2002: 518; Wright, 2005; Schneider and Foot, 2004: 114; Jankowski and Van Selm, 2008: 6; Hunsinger, 2005: 277; Hine, 2005: 241; Dahlberg, 2004). While many mass media researchers have been previously avoiding Web-related research projects due in part to the incompatibility of their investigation strategies which were not equipped to handle efficiently and adequately the multidimensional, deterritorialized and transient nature of this communication environment (Morris and Ogan, 1996; Roberts, Wanta *et al.*, 2002: 455; Kim and Weaver, 2002: 520; Manber 1996: 213; Wright, 2005; Schneider and Foot, 2004: 114; Jankowski and Van Selm, 2008: 5; Nosek, Banaji *et al.*, 2002: 168; Barbeite and Weiss, 2004: 1; Sheehan, 2002; Anderson and Kamuka, 2003; Wright, 2005; Weare and Lin, 2000: 273), an increasing number of political communication scholars are now tailoring their quantitative and qualitative research approaches to address the methodological specificities of the constantly-evolving structure of this “socio-political context” (Bennett and Iyengar, 2008: 2; Schneider and Foot, 2004: 114; Jankowski and Van Selm, 2008: 6; Vergeer and Hermans, 2008: 41; Graber and Smith, 2005: 487; Dahlberg, 2004).

The characteristics of this emergent field of research have forced the development of new interdisciplinary research techniques and the refinement of existing ones because conventional approaches such as textual analysis, frame analysis, content analysis and ethnography were not adequately tooled to handle the different facets of new online phenomena (Hines, 2005; Hunsinger, 2005: 277; Weare and Ling, 2000: 272; Foot and

Schneider, 2004: 114). New Web-based research methods are now “located in the interplays of online, onground and technical research spheres” (Maczewski Storey *et al.*, 2004: 63), which distinguishes them from conventional approaches because they have different research concerns and objectives (Buchanan, 2004: 63). In fact, Jankowski and Van Selm (2008: 8) believe the combination of these approaches is required to “achieve triangulation of sources that is felt to provide greater validity of findings”. Indeed, the Web and, more recently, social media channels have initiated a “deep structural change brought about by [...] [their contribution to the progressive development of a] networked information environment” (Baka and Scott, 2008: 2; Benkler, 2006: 1). However, Hine (2005: 240) notes that Web research is “not necessarily incommensurable” with existing approaches. More broadly, Internet-based communication technologies have contributed to the progressive eclosion of an aphysical “[...] space for scholars to rethink assumptions and categories, and perhaps even to find new insights into traditional communication technologies” (Morris and Ogan, 1996: 39).

There are several “push and pull factors” influencing academics to leap into Internet-based research. The novelty, the speed, the flexibility and the ease of this type of work constitute “pull factors” while the nascent nature as well as the on-going development of this communicational environment which forces scholars to constantly adapt their methodological approaches can be seen as some of the main “push factors” (Nancarrow, Pallister *et al.*, 2001, 137). It is important to point out that the Web has long been overlooked by social scientists for several primarily methodological reasons (Morris and Ogan 1996). For example, “it didn’t fit researchers’ ideas about mass media, locked, as they have been, into models” of unidirectional flows on content which characterized conventional broadcast media platforms such as television, newspapers and radio (Morris and Ogan, 1996: 40). As pointed out by Livingstone (2004: 76-77), television-inspired research strategies, which are designed for the study of the impact of “one-to-one”, “one-to-few” or “one-to-many” media channels which emphasize unidirectional “broadcast politics” communicational patterns (Trippi, 2004: 40), need to be adapted to the structure of the Web and, more importantly, social media networks which also enable “peer-to-peer” or, more broadly, horizontal and decentralized information flows and social relations (Kaye and Johnson, 2004: 198; Kim and Weaver, 2002: 520; Livingstone, Bober *et al.*, 2005: 290; Walther, Gay *et al.*, 2005:235). According to many scholars (Jankowski and Van Selm, 2008: 6; Weare and Lin, 2000: 273; Schneider and Foot, 2004: 115; Bimber, 1999: 414; Iyengar, 2002: 11; Hine, 2005; Dahlberg, 2004), there are several other challenges posed by Web-only research such as “the [...] design of studies and use of mixed method approaches” as well as the sampling processes and “the visualization of

findings”. This paper is focusing specifically on the identification and characterization of sampling challenges and opportunities facing researchers who are studying Web-based social media.

Wellman (2004) believes Web research has gone through three (3) distinct developmental stages. First, scholars treated the Web as a “bright light, shining above everyday concerns” and studied its impact through the consideration of data as well as “conjecture and anecdotal evidence”, consequently rendering the results of their analyses primarily “utopian” (Wellman, 2004: 124; Jankowski and Van Selm, 2008: 6)⁹. The second phase, which started in 1998, focused on the documentation of “Internet uses and users” (Wellman, 2004: 126). According to Dahlberg (2004) and Kim and Weaver (2002: 527), it constituted in 2004 the bulk of Internet-related scientific work. Finally, the last, and current, e-research stage is characterized by the emergence and development of “focused, theoretically-driven [...] [multidisciplinary] projects” (Wellman, 2004: 127). The last decade has been marked by the publication of a growing number of scientific articles and books tackling a wide range of topics directly or indirectly linked to online communication practices (Foot and Schneider, 2004: 114; Boulos *et al.*, 2006: 43, Wright: 2005; Rice, 2005: 6; Kim and Weaver, 2002: 522)¹⁰.

According to Eysenbach and Till (2001: 1103), there are three main types of online research methods. First, the “passive analysis” approach focuses on the “information patterns on websites or interactions on discussion groups [or other communication platforms] without the researchers actually involving themselves” (Eysenbach and Till, 2001: 1103). The second and third types are considered as “active analysis” due to scholars’ heavy involvement in the research process. The second type is characterized by the active participation of researchers in the communication process so they can closely examine it; their status can be known or not by the participants. Finally, the heavy use of information-gathering techniques such as structured or semi-structured interviews, surveys and focus groups constitutes the distinctive feature of the third type of online research where the researchers’ status is generally known by all respondents. The weblog study detailed in this paper is part of this third category of Web-based research.

Identification of the blogging population

⁹ This period can be defined as an “eloquent euphoria” (Wellman, 2004: 127; Ess, 2007: 487).

¹⁰ For example, the number of scientific publications on Web-related matters authored by U.S.-based researchers accessible in the specialized database *Communication Abstracts* has steadily increased in the past years, going from “a mere 34 in 1996, to 139 in 1998, and to 151 in 2000” (Kim and Weaver, 2002: 522; Rice, 2005: 6). Researchers had broad interests covering fifty-two specific topics that can be classified in twelve different categories between 1996 and 2000 (Kim and Weaver, 2002: 523).

The identification of the population studied, in this case Quebec-based members of the political blogosphere, is complicated by several distinct architectural characteristics of the blogspace¹¹. First, a detailed portrayal of political blogs is required to differentiate them from other weblog subcategories such as personal blogs, also defined as “online diaries” (Nardi, Schiano *et al.*, 2004: 3; Qian and Scott, 2007; Hinduja and Patchin, 2008: 129; Huffaker and Calvert, 2005), law-related blogs, more commonly known as “blawgs” (Conrad and Schilder, 2007: 231; Moorman, 2004: 14), or recipe blogs (Mishne, 2006; Trammell, Tarkowski *et al.*, 2006; Su, Wang *et al.*, 2005: 8; Efron, 2008: 493; Sweetser, Golan *et al.*, 2008: 103; Farrell, Lawrence *et al.*, 2008: 11; Li, 2007: 8). The search engine *Yahoo!* listed eighteen blog categories in 2008 (Efron, 2008: 493). As noted by Karpf (2008: 369), the term “blog” refers “[...] to a wide range of disparate activities that are problematically grouped together”. While weblogs focusing on politically-oriented matters are more broadly seen as “news blogs” (Sundar, Edwards *et al.*, 2007: 87), they can take different formats, include several content genres and serve various communication, mobilization and persuasion objectives (Trammell and Keshelashvili, 2007: 968; Herring, Scheidt *et al.*, 2004: 3; Trammell, Williams *et al.*, 2006: 39), the majority of them are defined as “filter blogs” due to their heavy reliance on hyperlinks that can have a channelling effect on audience members’ Web media consumption behaviour by redirecting them to publicly-available online resources comprising mix-media information directly or indirectly linked to their argumentation (Hookway, 2008: 93; Singer, 2005: 192; Herring, Kouper *et al.*, 2005: 3; Trammell and Keshelashvili, 2005: 972; Spillman, Demo *et al.* 2007: 7; Cornfield, Carson *et al.*, 2005: 3). However, not all weblogs are “overtly political” (Sweetser and Kaid, 2008: 73; Ferguson and Griffiths, 2006: 372; Ashbee, 2003: 362). Many of them can comprise “parapolitical” mix-media digital material that can have a direct or indirect influence on readers’ political perceptions (Dahlgren, 2005: 153; Bode, 2008: 7; Hermanns, 2008). For example, Sweetser and Kaid (2008: 73) conducted an analysis showing that 18% of forty-seven U.S.-based celebrity weblogs featured politically-oriented content in 2008. As pointed out by Brants (2002: 187), “politics is everywhere” (Jankowski and Van Selm, 2008: 6).

According to Wallsten (2005: 12), two techniques can be used to determine if blogs can be categorized as political. First, a quantitative keyword analysis of their content can be conducted to evaluate the publication periodicity of politically-oriented material (Wallsten, 2005: 12), but few authors have provided clear and precise benchmarks for the determination

¹¹ This assessment contradicts Efron (2004) who believes that “finding blogs about politics is easy”.

of blogs' political nature¹². For example, while certain bloggers do not heavily focus on political matters, they may frequently include politically-related material in their posts. Secondly, researchers can rely on bloggers' own assessment of their blog through, for instance, structured or semi-structured interviews that can be conducted by email or secure Web-based surveys (Wallsten, 2005: 12; Giasson, Raynauld *et al.*, 2009: 9-10). However, some of them may characterize their publications as political when, in fact, they contain few to no politically-oriented content (Wallsten, 2007a: 574). Wallsten (2005: 12) notes that these methods require "a large sample of bloggers just to find the small number of blogs that are political". Other techniques have also been developed in recent years to identify political blogs such as the consideration of public directories (Wallsten, 2005: 12; 2007a: 571; 2007b; Adamic and Glance, 2005: 3; Efron, 2004) or the analysis of conventional media's reporting which often mentions political bloggers (Park, 2009: 254-255; Trammell and Keshelashvili, 2005: 969; Hargittai, Gallo *et al.*, 2008: 70; Su, Yang *et al.*, 2005: 3). More broadly, the categorization of blogs heavily relies on "human evaluation" such as "judgment calls" made by researchers throughout the coding process (Capra, Lee *et al.*, 2008: 219; Farrell, Lawrence *et al.*, 2008: 11).

Secondly, the constant launch of new blogs has a deep on-going restructuring effect on the blogosphere and, more broadly, social media networks (Park *et al.*, 2004: 413). David Sifry has demonstrated through many extensive surveys in recent years that the blogosphere has been rapidly expanding since 2004. For example, the specialized search engine *Technorati*¹³ was tracking 70 million weblogs in March 2007 with more than 120,000 launched every day (Sifry, 2007)¹⁴. It is important to point out that the constantly-evolving nature of the political blogosphere prevents the constitution of a comprehensive repertoire of all its members (Hargittai, Gallo *et al.*, 2008: 72; Trammell and Keshelashvili, 2005: 973; Gruszczynski, 2009: 11; Li, 2007: 11; Halavais, 2002). Moreover, many weblogs are not regularly updated by their authors can remain inactive for long periods of time as well as abandoned (Perseus, 2004), thus further complicating the sampling process. For example, a 2004 study indicated that 66% of weblogs were not updated after two (2) consecutive months and could therefore be deemed inactive (Perseus, 2004). Other social media platforms are also plagued by poor levels of retention. A recent study determined that only 40% of *Twitter* users kept updating their profile after two (2) consecutive months in 2008 (Martin, 2009). Based on

¹² In fact, there is no consensus among the scientific community on the definition of a politically-oriented blog (Wallsten, 2005: 11).

¹³ <http://technorati.com/>, website accessed on Friday, May 8th 2009 at 0h42 am.

¹⁴ In October 2006, there were 57 million weblogs (Sifry, 2006b), up from 50 million on July 31st, 2006 (Sifry, 2006a), 18.9 million in October 2005 (Sifry, 2005c), 14.2 in July 2005 (Sifry, 2005a), 7.8 million in March 2005 (Sifry, 2005b) and 4 million in October 2004 (Sifry, 2004)

several authors' work (Schmidt, 2007; Gruszczynski, 2009: 11), it is possible to argue that the production of a detailed and up-to-date portrayal of the political blogosphere is complicated by its "highly dynamic and decentralized [...]" nature. Also, it is important to note that previous U.S. studies of the political blogosphere can be criticized due to their consideration of only a small and therefore unrepresentative fraction of the blogosphere, primarily "A-list" bloggers¹⁵, which does not provide an adequate depiction of politically-oriented blogging activities (Wallsten, 2005: 1).

Finally, the geographically-specialized nature of this study, which exclusively focused on Quebec-based political bloggers, required the determination of the physical location of the population studied¹⁶. Blog writers generally have a tight control on what type of information they disclose on their blog (Su, Wang *et al.*, 2005: 5). Several reasons push bloggers to include identity markers in their blog such as, for instance, the desire to "establish connections with online audiences", to play an active role in their "geographical community" or to bolster their credibility by enabling their readers to evaluate their "trustworthiness and expertise" (Papacharissi, 2006; Flanagin and Metzger, 2008: 141; Kavanaugh, Zin *et al.*, 2006). While political bloggers generally disclose "slightly" more identity markers than personal bloggers (Su, Wang *et al.*, 2005: 11; Herring, Scheidt *et al.*, 2004; Sundar, Edwards *et al.*, 2007: 88), this study required the presence of highly geographically-specific details in order to determine where the bloggers resided. Their geographical location can be determined in different ways. First, personal and often geographically-specific information can be included in their profile. Secondly, a content analysis of their publications can also provide insights on their location. For example, geographical references or recurrent thematic publications focusing on specific political issues linked to a particular geographical context can provide insights on their physical position. Thirdly, as pointed out by Wallsten (2005: 11), an informal interview with bloggers can help to pinpoint their geographical location. Finally, there are directories listing weblogs by their geographical location. However, as previously mentioned, the accuracy of these repertoires can be questioned due in part to the constantly-evolving nature of the blogosphere. It is important to point out that it is impossible for researchers to independently confirm the information disclosed by bloggers.

¹⁵ "A-list" political blogs can be defined as high profile and very influential members of the political blogosphere that can be seen as opinion leaders because they are the recipients of a large number of inbound hyperlinks from other Web-based formal and informal communication channels, are periodically quoted by conventional media organizations, which can lead them to potentially influence to varying degrees their political coverage, and are consequently heavily trafficked "information hubs" (Trammell and Keshelashvili, 2005: 968-969; Herring, Kouper *et al.*, 2005: 1; Xenos, 2008: 488; McKenna, 2007: 210; McKenna and Pole, 2008: 97; Woody, 2008: 118).

¹⁶ Some scholars have conducted studies specifically focusing on the geographical dispersion of U.S. bloggers (Lin and Halavais, 2004; Lin and Halavais, 2006; Lin, Halavais *et al.*, 2007).

While the total size of the Quebec-based French-speaking political blogging community was unknown at the time of the analysis due to a lack of comprehensive scientific quantitative surveys, it was possible to argue that there were no more than 125 active Quebec-based political bloggers in April 2008. This approximation rested on the consideration of two unscientific lists of political blogs publicly-available at “<http://www.tlmeb.com>” and “<http://www.topblogues.com>” which provided rough estimates of the weekly traffic in the Quebec blogosphere. The first site identified 65 active political bloggers while the second listed 121 individuals. The thirty most-trafficked politically-oriented blogs from both lists were relatively similar, thus indicated their compatibility. While the methodology used for the classification of weblogs by the creators of these informal indexes was not readily available, the political orientation of the selected bloggers in the study was later confirmed through their answers in the online survey.

Characterization of the sampling strategy

Many scholars have developed throughout the last five years various sampling techniques specifically designed to address the structural specificities of the cyberspace. While many conventional offline probabilistic sampling practices such as “simple random sampling”, “stratified random sampling” and “multistage or cluster sampling” are periodically used in the online environment, several scholars argue that they fail to generate representative samples and therefore need to be adapted (Nardi, 2006; Ahn, Han *et al.*, 2007: 3; Blumenthal, 2005: 657). Indeed, Web-based “probability sampling” can be seen as highly problematic “if not impossible” for “uses and gratification” and other scholars (Li, 2007: 11; Andrews, Nonnecke *et al.*, 2003: 189; Lang, 2002: 4). The sampling method design, much like the research method (Floyd and Kohnler, 2003: 29), needs to be closely linked to the questions and, more importantly, the objectives of a particular research project.

The creation of a sampling method in an online environment requires extreme flexibility on the part of researchers. As previously exposed in this paper, the constant-evolving nature of the political blogosphere, or any online social media network, renders the establishment of a probabilistic and thus representative sample highly difficult. Many scholars have used methodologically-questionable sampling tactics to study the political blogosphere. In fact, the “methodologies employed [...] [throughout the last five years] have been tentative, though not lacking in creativity” (Gruszczynski, 2009: 11), thus reaffirming the need for the development of a comprehensive as well as robust methodological strategy. First, a clear identification of the corpus is necessary so the ensuing analysis can generate precise and meaningful data. Several scholars have opted for mostly random identification and selection

processes (Bar-Ilan, 2005: 299; Huffaker and Calvert, 2005; McKenna and Pole 2008: 99; Herring and Paolillo, 2006: 440; Herring, Scheidt *et al.*, 2004; Wallsten, 2008; Munger, 2008: 60). For example, Bar-Ilan (2005: 299) chose blogs after “browsing blogspace for a while” while Huffaker and Calvert (2005) “randomly [...] selected weblogs” authored by teenagers. According to Wallsten (2005: 11) who studied the political blogosphere, the “random sampling” technique could be used effectively if there was an exhaustive and up-to-date blogging population directory. For example, every blog selected “could [...] be checked for whether it was political or not and either throwing the sampled blog out or including it in the study” (Wallsten, 2005: 11); this procedure could be repeated until the desired sample size is reached (Wallsten, 2005: 11). However, the changing nature of the blogosphere, which prevents the constitution of a comprehensive and up-to-date list of its members, renders this approach highly improbable (Jankowski and Van Selm, 2009: 9).

According to Ahn, Han *et al.* (2007: 3), non-probabilistic “snowball” techniques, which have been extensively used to study the blogosphere in recent years (Herring, Kouper *et al.*, 2005; Johnson and Kaye, 2004: 627; Johnson, Kaye *et al.*, 2008; Qian and Scott, 2007; Pole, 2005: 8; Herring and Paolillo, 2006: 445-446; Albrecht, Lübcke *et al.*, 2007: 509), represent the only sampling strategies currently “feasible” or “appropriate” in a Web-based research context for several methodological reasons (Johnson and Kaye 2009: 181; Li, 2007: 11). First, Web-based research samples are required to be large in order to avoid “many small and isolated clusters” that could have detrimental effects on the representativeness of the collected data (Ahn, Han *et al.*, 2007: 3). Secondly, other strategies such as “node and link sampling”, which favours the creation of samples through the strict consideration of the hyperlinked structure of the Web (Lee, Kim *et al.*, 2006), do not adequately represent the decentralized nature and unpredictability of social flows characterizing Web-based communities and could therefore have a very detrimental effect on the research sample’s validity (Ahn, Han *et al.*, 2007: 3). However, Vergeer and Hermans (2008: 47) point out that “snowball sampling” procedures can led to the constitution of “biased” samples not adequately representing social network’s composition. But ultimately, the absence of precise as well as exhaustive sampling bases of political blogs often determines the selection of non probabilistic sampling techniques. In fact, Babbie (1998) believes that non probabilistic sampling strategies, which are primarily used in qualitative investigations similar to the one partially carried out in this study, are “appropriate for identifying special population who are difficult to locate by other means” (Scheidt, 2008: 61). In fact, Wallsten (2005: 11) believes it

is possible to argue there “is no way to generate a truly representative sample of political blogs”.

The sampling strategy is also influenced by the data-gathering techniques selected by researchers. In the case of the study on the Quebec-based members of the political blogosphere, the data was collected through a publicly-available secure Web-based questionnaire available on the *Groupe de recherche en communication politique*'s (GRCP) website hosted by Université Laval's Web servers for two (2) weeks (April 15th 2008 to May 1st 2008 inclusively). Many blog-related studies have opted for this approach, seen as “in vogue” in recent years (Fricker and Schonlau, 2002: 2), to collect information (Porter, Sweetser *et al.*, 2007: 93; Li, 20007: 11; Johnson and Kaye, 2004: 627; Johnson, Kaye *et al.*, 2008; Kaye, 2005b; Baumer, Sueyoshi *et al.*, 2008). The survey featured 58 structured and semi-structured questions unevenly distributed in seven thematic sections focusing on bloggers' socio-demographics, their political profile and preferences, their weblogs' content and structure, their blogging practices, their communication objectives and intentions as well as their broader use of social media tools. Online survey technologies, defined by some authors as “young and evolving” (Wright, 2005; Truell, 2003: 31), have internal characteristics directly affecting the constitution of research samples. First, the surveys' electronic format allows a faster circulation of the questionnaires to a large pool of respondents independently of several considerations such as their geographical location (Wright, 2005; Fricker and Schonlau, 2002: 2). Their answers can be subsequently sent back electronically and automatically entered into databases. Secondly, unlike paper-based surveys, their format is cheaper because it does not require the questionnaires to be printed, therefore eliminating “postage, printing, and data entry” costs (Wright, 2005). In the case of the survey of Quebec-based political bloggers, these characteristics enabled the study to have a broader reach because several limitations linked to geographical distance and, to a certain extent, costs were eliminated.

The research sample for the study of Quebec-based French-speaking political bloggers was constituted through the use of a two-stage sampling procedure. First, a conventional reasoned choice approach was employed to select 22 A-list political bloggers. They were identified through the consideration of the two previously mentioned blog popularity indexes as well as following a content analysis of conventional media's coverage of the 2007 Quebec Provincial elections which often referred to specific political bloggers. An email invitation to fill out the survey comprising a hyperlink to the online questionnaire was subsequently sent to the selected bloggers. Secondly, a snowball technique, also known as the “reputation method”

(Vergeer and Hermans, 2008: 47), used in a viral dissemination approach (Jankowski and Van Selm, 2008: 6, Viégas, 2005; Scheidt, 2008: 61) was employed to informally circulate through online and offline networks invitations to complete the survey to individuals within the Quebec blogosphere. Many recent studies have demonstrated that the structure of online communication and persuasion channels favour the viral circulation of mix-media information (Wallsten, 2008: 2; Baumgartner, 2007: 320; Delli Carpini, 2000: 347; Jankowski and Van Selm, 2008: 6; Sweetser, 2008: 179). This viral diffusion was accomplished through two distinct communication channels. First, the selected A-list bloggers who positively responded to the initial email request in the reasoned choice sampling phase were asked, through a second email, to forward the survey's web link to three other Quebec-based political bloggers they knew through their personal online or offline social network or their daily online media consumption diet. They were also invited to publicize the study by posting an hyperlink on their blog redirecting their readers to the online questionnaire¹⁷. It should be noted that this mediatization approach for a scientific investigation has been used previously by several scholars (Johnson, Kaye *et al.*, 2008). Secondly, an email was sent to four Quebec-based French-speaking journalists maintaining widely-read blogs, also defined as “newspaper staff-produced blog” (Spillman, Demo *et al.*, 2007: 4), to ask them to publicize the study. Two of them responded positively to the request and mentioned the study in both their online and offline reporting.

Although invitations to fill out the survey were directly or virally disseminated to Quebec-based bloggers of all political allegiances, it should be pointed out that the ideological portrait of the Quebec political blogosphere generated through the survey could have been influenced by a potential selection effect linked to the sampling strategy. Indeed, the partial viral nature of the sampling method might have contributed to the larger circulation of the survey within specific ideological social networks. For example, some bloggers might have deployed greater efforts at transmitting the invitations to participate in the study within their personal social networks comprised of bloggers with relatively similar political preferences. Indeed, several authors argue that the online political communication landscape has been marked in recent years by the fragmentation of the online political audience into a constantly-evolving number of constellations comprised of transient “multifarious and shifting constituencies” offering their members a politically-homogenous social and informational environment which consequently lead to the constant reinforcement of pre-existing and “possibly distorted” political attitudes and behaviours among “netizens” (Wright and Street,

¹⁷ It is important to point out that this method has been used previously by several scholars (Johnson, Kaye *et al.*, 2008).

2007: 852; Iyengar, Hahn *et al.*, 2008: 186; Graf and Aday, 2008: 88; Bimber, 2005: 6; Tewksbury, 2008: 3; Gaines, Mondak *et al.*, 2008; Veenstra, Sayre *et al.*, 2008). While the viral dissemination of survey invitations favoured a wider circulation within the political blogosphere, these selection effects could have detrimental impacts on the validity of the results (Jankowski and Van Selm, 2008: 6)¹⁸. Inversely, the heavier participation of certain segments of the Quebec political blogosphere could indicate a higher level of participation and mobilisation as well as the presence of a tighter social network in certain online socio-political communities. More specifically, the viral sampling technique could be seen as an indicator of the socio-political behavioural profile of Quebec-based bloggers in itself. For example, the survey showed that left-leaning political bloggers had the highest participation rate in the survey; this deeply influenced some of the results such as, for example, political and social preferences. However, it demonstrates that they are more politically-active and mobilized than members from other political groups within the Quebec blogosphere.

A total sample of 56 bloggers ultimately completed the online secure questionnaire during the two weeks recruitment period. More specifically, 16 out of the 22 “A-list” political bloggers contacted in the first sampling round answered the secure Web-based questionnaire. Additionally, 40 bloggers contacted during the viral dissemination phase, whether through direct or indirect social networks or through the online and offline conventional media coverage of the study, participated in the research. While the total number of respondents is relatively smaller than other studies focusing on all types of bloggers (Kullin, 2006; Braaten: 2005), the highly-specialized nature of this project, which exclusively targeted Quebec-based French speaking political bloggers who published content at least once a week, and the relative small size of the Quebec political blogosphere explain and, to a certain extent, warrant the size of the research sample. It also advantageously compares to other analysis of political bloggers conducted in other national contexts, especially in the United States (McKenna and Pole, 2004: 5; 2008; Wallsten, 2005), which featured generalizations based on relatively small samples.

Conclusion

This paper presented a broad overview of the challenges linked to the study of political blogs. It showed that while a wide range of multidisciplinary investigations on weblogs in different national contexts have been published in recent years, there are still important methodological gaps that need to be addressed. In fact, the rising popularity and constant evolution of social

¹⁸ For example, it could motivate individuals with a specific political or research agenda to fill out the questionnaire in a specific and potentially biased way, therefore tainting the representativeness and, more importantly, the validity of the data collected (Jankowski and Van Selm, 2008: 6).

media channels, which have similar structural characteristics to blogs, will force researchers to develop new strategies and refine existing ones to examine these communication channels which are having a growingly important influence on information flows and social relations in several Western nations. While this paper only looked at sampling issues, more scientific work is required to better understand different facets of the quantitative and qualitative methodological approaches that are required to efficiently study the cyberspace such as the data-collection techniques and the extent of researchers' direct or indirect involvement with their object of study. As indicated previously, the "fashionable" status of Web-based research projects (Dahlberg, 2004) must not deter researchers from conducting methodologically-sound investigative work which has been lacking in recent years (Gruszczynski, 2009: 11). In fact, more scientific projects specifically targeting online political communication research methodologies must be launched.

References

- ACKLAND, R. (2008), "Using Facebook as a Data Source and Platform for e-Researching Social Networks", Fourth International Conference on E-Social Science: 8 pages, document available online: <http://voson.anu.edu.au/papers/paper-Ackland-2008.pdf>, website accessed on Friday, May 1st 2009 at 1h45 am.
- ADAMIC, L. and N. GLANCE (2005), "The political blogosphere and the 2004 U.S. elections : Divided they blog" 16 pages, document available online: <http://ilyagram.org/media/fetch/AdamicGlanceBlogWWW.pdf>, website accessed on Thursday, August 21st 2008 at 9h24 pm.
- AHN, Y. Y., S. HAN *et al.* (2007), "Analysis of topological characteristics of huge online social networking services", Proceedings of the 16th international conference on World Wide Web: 1-11, document available online: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.87.2864&rep=rep1&type=pdf>, website accessed on Tuesday, April 21st 2009 at 6h41pm.
- ALBRECHT, S., M. LUBCKE *et al.* (2007), "Weblog Campaigning in the German Bundestag Election 2005", Social Science Computer Review **25**(4): 504-520.
- ANDERSON, T. and H. KANUKA (2003), "E-research: Methods, strategies, and issues", document available online: http://www.dusit.ac.th/new_ver12/document/e_Research.pdf, website accessed on Wednesday, May 6th 2009 at 5h23 pm.
- ANDREWS, D., B. NONNEECKE *et al.* (2003), "Electronic survey methodology: A case study in reaching hard-to-involve Internet users", International Journal of Human-Computer Interaction **16**(2): 185-210.
- ANSTEAD, N. and A. CHADWICK (2007), "Parties, election campaigning, and the Internet Toward a comparative institutional approach" in CHADWICK, A. and P. N. HOWARD (2008), Routledge Handbook of Internet Politics, Routledge: 528 pages.
- ASHBEE, E. (2003), "The Lott resignation, 'blogging' and American conservatism", 370 Political Quarterly **74**(3): 361-370.
- BACKSTROM, L., D. HUTTENLOCHER *et al.* (2006), "Group formation in large social networks: membership, growth, and evolution", Proc. 12th ACM SIGKDD Intl. Conf. on Knowledge Discovery and Data Mining: 44-54, document available online: <http://wiki.cs.columbia.edu/download/attachments/1979/Group+Formation+in+Large+Social+Networks-backstrom.pdf>, website accessed on Thursday, March 19th 2009 at 0h21 am.
- BAIRD, D. E. and M. FISHER (2005), "Neomillennial user experience design strategies: Utilizing social networking media to support" always on" learning styles", Journal of Educational Technology Systems **34**(1): 5-32.
- BAKA, V. and S. V. SCOTT (2008), "From Studying Communities to Focusing on Temporary Collectives: Research-In-Progress on Web 2.0 in the Travel Sector", Working Paper Series, 12 pages, document available online: <http://is2.lse.ac.uk/wp/pdf/wp171.pdf>, website accessed on Monday, April 13th 2008 at 12h28 pm.
- BANSAL, N. and N. KOUDAS (2007), "Searching the blogosphere", Proceedings of the 10th International Workshop on Web and Databases, document available online: <http://gemo.futurs.inria.fr/events/WebDB2007/Papers/p37.pdf>, website accessed on Thursday, March 19th 2009 at 0h26.
- BARBEITE, F. G. and E. M. WEISS (2004), "Computer self-efficacy and anxiety scales for an Internet sample: testing measurement equivalence of existing measures and development of new scales", Computers in Human Behavior **20**(1): 1-15, http://www.uam.es/personal_pdi/psicologia/pei/download/barbeite2004.pdf, website accessed on Tuesday, April 28th 2009 at 3h09 pm.
- BAUM, M. A. and T. GROELING (2008), "New Media and the Polarization of American Political Discourse", Political Communication **25**(4): 345-365.

BAUMER, E., M. SUEYOSHI *et al.* (2008), "Exploring the role of the reader in the activity of blogging", CHI 2008, document available online: <http://ericbaumer.com/publications/chi1132-baumer.pdf>, website accessed on Thursday, May 14th 2009 at 4h51 pm.

BEER, D. D. (2008), "Social network (ing) sites ... revisiting the story so far: A response to Danah Boyd & Nicole Ellison", Journal of Computer-Mediated Communication **13**(2): 516-529.

BENKLER, Y. (2006), The wealth of networks: How social production transforms markets and freedom, Yale University Press: 515 pages

BENNETT, S., K. MATON *et al.* (2008), "The 'digital natives' debate: A critical review of the evidence", British journal of educational technology **39**(5): 775-786.

BENNETT, W. L. (1998), "The uncivic culture: Communication, identity, and the rise of lifestyle politics", PS: Political Science and Politics **31**(4): 740-761.

BENNETT, W. L. (2007), "Civic learning in changing democracies: Challenges for citizenship and civic education", Center for Communication & Civic Engagement, document available online: http://depts.washington.edu/ccce/assets/documents/bennet_civic_learning_in_changing_democracies.pdf, website accessed on Monday, April 27th 2009 at 7h56 pm.

BENNETT, W. L. and S. IYENGAR (2008), "A New Era of Minimal Effects? The Changing Foundations of Political Communication", Journal of Communication **58**(4): 707-731.

BENNETT, W. L., C. WELLS *et al.* (2008), "Young Citizens and Civic Learning: Two Paradigms of Citizenship in the Digital Age", Center for Communication & Civic Engagement: 35 pages, document available online: http://www.engagedyouth.org/blog/wp-content/uploads/2008/08/youngcitizens_clo_finalaug_1.pdf, website accessed on Tuesday, April 14th 2009 at 1h02 am.

BEST, S. J. and B. S. KRUEGER (2005), "Analyzing the representativeness of internet political participation", Political Behavior **27**(2): 183-216.

BEST, S. J., B. KRUEGER *et al.* (2001), "An assessment of the generalizability of Internet surveys", Social Science Computer Review **19**(2): 131-145.

BIAN, J., Y. LIO *et al.* (2008), "A few bad votes too many?: towards robust ranking in social media", WWW 2008 workshop on Adversarial Information Retrieval: 8 pages, document available online: http://www.mathcs.emory.edu/~eugene/papers/airweb2008_spam.pdf, website accessed on Friday, March 20th 2009 at 11h55 pm.

BIMBER, B. (1999), "The Internet and Citizen Communication With Government: Does the Medium Matter?", Political Communication **16**(4): 409-428, document available online: http://www.hangjung.org/pdf/Bimber_1999_Internet_and_Citizen_Communication.pdf, website accessed on Wednesday, May 6th 2009 at 12h43 pm.

BODE, L. (2008), "Social Networking Sites, Social Capital, and Political Participation", Midwest Political Science Association: 23 pages, document available online: http://www.allacademic.com/one/www/www/index.php?cmd=Download+Document&key=unpublished_manuscript&file_index=2&pop_up=true&no_click_key=true&attachment_style=attachment&PHPSESSID=d9411046382970957886aa7e938d4a76, website accessed on Wednesday, July 30th 2008 at 6h52 pm.

BOYD, D. (2008), "Can social network sites enable political action?", International Journal of Media and Cultural Politics **4**(2): 241-244.

BOYD, D. (2008), "Why youth (heart) social network sites: The role of networked publics in teenage social life" in BUCKINGHAM, D. (ed.) (2008), Youth, Identity, and Digital Media Cambridge, MIT Press: 209 pages.

BOYD, D. M. and N. B. ELLISON (2007), "Social network sites: Definition, history, and scholarship", Journal of Computer-Mediated Communication, **13**(1), document available online at

<http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html>, website accessed on Saturday, December 29th 2007 at 19h34.

BRANTS, K. (2002), "Politics is Everywhere", Communications: The European Journal of Communications Research 27(2): 171-188.

BRÜGGER, N. (2009), "Website History and the Website as an Object of Study", New Media & Society 11(1-2): 115-132.

BUCHANAN, E. A. (2004), Readings in virtual research ethics : Issues and controversies. Hershey, PA, Information Science Pub: 350 pages.

BYRNE, D. N. (2007), "Public discourse, community concerns, and civic engagement: Exploring black social networking traditions on BlackPlanet.com". Journal of Computer-Mediated Communication 13(1), document available online: <http://jcmc.indiana.edu/vol13/issue1/byrne.html>, website accessed on Tuesday, April 21st 2009 at 0h14 am.

CARRIZALES, T. (2009), "The Internet Citizenry: Access and Participation", Public Administration Review 69(2): 350-353.

CASSELL, J., D. HUFFAKER *et al.* (2006), "The language of online leadership: Gender and youth engagement on the Internet", Developmental Psychology 42(3): 436-449, document available online: <http://www.apa.org/releases/dev423-cassell.pdf>, website accessed on Wednesday, April 22nd 2009 at 6h33.

CASSIDY, W. P. (2007), "Online News Credibility: An Examination of the Perceptions of Newspaper Journalists", Journal of Computer-Mediated Communication 12(2): 478-498, document available online: <http://jcmc.indiana.edu/vol12/issue2/cassidy.html>, website accessed on Thursday, May 21st 2009 at 12h48 pm.

CAVERLEE, J. and S. WEBB (2008), "A large-scale study of MySpace: Observations and implications for online social networks", 2nd International Conference on Weblogs and Social Media, document available online: <http://faculty.cs.tamu.edu/caverlee/pubs/caverlee08alarge.pdf>, website accessed on Saturday, May 2nd 2009 at 3h13 pm.

CEFRIO (2008), "Portrait de l'utilisation des TI et d'Internet au Québec".

CHINN, M. D. and R. W. FAIRLIE (2006), "The determinants of the global digital divide: a cross-country analysis of computer and internet penetration", Oxford Economic Papers, document available online: http://www.ssc.wisc.edu/~mchinn/chinn_fairlie_OEP.pdf, website accessed on Monday, April 13th 2009 at 1h08 am.

COHEN, J. E. (2004), "If the News Is So Bad, Why Are Presidential Polls So High? Presidents, the News Media, and the Mass Public in an Era of New Media", Presidential Studies Quarterly 34(3): 493-515.

COLEMAN, S. and S. WRIGHT (2008), "Political blogs and representative democracy", Information Polity 13(1-2): 1-6.

COMPTON, J. L. (2008), "Mixing Friends with Politics: A Functional Analysis of '08 Presidential Candidates Social Networking Profiles", National Communication Association: 26 pages, document available online: http://www.allacademic.com/meta/p259348_index.html, website accessed on Sunday, May 10th 2009 at 5h42 pm.

COMSCORE (2007), "Social Networking Goes Global", comScore, document available online: <http://www.comscore.com/press/release.asp?press=1555>, website accessed on Monday, April 20th 2009 at 10h27 pm.

CONRAD, J. G. and F. SCHILDER (2007), "Opinion mining in legal blogs", Proceedings of the 11th international conference on Artificial intelligence and law: 231-236, document available online: http://www.conradweb.org/~jackg/pubs/ICAIL07_Conrad_Schilder.pdf, website accessed on Friday, May 8th 2009 at 11h48 am.

CORNFIELD, M., J. CARSON *et al.* (2005), “Buzz, blog and beyond: The Internet and the national discourse in the fall of 2004”, PEW Internet and American Life Project and Buzzmetrics: 32 pages, document available online: http://michelemiller.blogs.com/marketing_to_women/files/buzz_blogs_beyond.pdf, website accessed on Tuesday, May 11th 2009 at 4h58 pm.

COUTTS, J., K. DASON *et al.* (2007), “Will you be my friend? Prospective teachers' use of Facebook and implications for teacher education”, Technology and Teacher Education Annual **18**(4): 1937- 1941.

DAHLBERG, L. (2004), “Internet research tracings: Towards non-reductionist methodology”, Journal of Computer-Mediated Communication **9**(3): 1-28, document available online: <http://jcmc.indiana.edu/vol9/issue3/dahlberg.html>, website accessed on Thursday, May 7th 2009 at 0h33 am.

DAHLGREN, P. (2005), “The Internet, Public Spheres, and Political Communication: Dispersion and Deliberation”, Political Communication **22**(2): 147-162.

DALTON, R. J. (2008), “Citizenship norms and the expansion of political participation”, Political Studies **56**(1): 76-98, document available online: <http://www8.georgetown.edu/centers/cdacs/cid/Dalton.pdf>, website accessed on Friday, May 1st 2009 at 7h41 pm.

DELLI CARPINI, M. X. (2000), “Gen.com: Youth, Civic Engagement, and the New Information Environment”, Political Communication **17**(4): 341-349.

DELLI CARPINI, M. X. D., F. L. COOK *et al.*, “Public Deliberation, Discursive Participation, And Citizen Engagement”, A Review of the Empirical Literature”, Annual Review of Political Science **7**: 315-344.

DIMAGGIO, P., E. HARGITTAI *et al.* (2001), ““Social Implications of the Internet”, Annual Review of Sociology **27**: 307-336.

DIMAGGIO, P., E. HARGITTAI *et al.* (2004), “From unequal access to differentiated use: A literature review and agenda for research on digital inequality”, Social inequality: 355-400.

DONATH, J. And D. BOYD (2004), “Public displays of connection”, BT Technology Journal **22**(4), 71-82.

DREZNER, D. W. and H. FARRELL (2008), “Introduction: Blogs, politics and power: a special issue of Public Choice”, Public Choice **134**(1): 1-13.

DRYBURGH, H. (2001), “Changing Our Ways why and how Canadians Use the Internet”, Statistics Canada: 14 pages, document available online: <http://www.statcanada.com/english/research/56F0006XIE/56F0006XIE2000001.pdf>, website accessed on Friday, May 1st 2009 at 1h26 pm.

DWYER, C., S. R. HILTZ *et al.* (2007), “Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace”, Americas Conference on Information Systems, document available online: <http://csis.pace.edu/~dwyer/research/DwyerAMCIS2007.pdf>, website accessed on Tuesday, April 21st 2009 at 6h29 pm.

EFRON, M. (2004), “Cultural orientation: Classifying subjective documents by cocitation analysis”, Proceedings of the AAAI Fall Symposium on Style and Meaning in Language, Art, Music, and Design, document available online: <http://www.ischool.utexas.edu/~miles/research/papers/FS08-04Efron.pdf>, website accessed on Tuesday, May 12th 2009 at 4h11 pm.

EFRON, M. (2006), “Using cocitation information to estimate political orientation in web documents”, Knowledge and Information Systems **9**(4): 492-511, document available online: <http://www.ischool.utexas.edu/~miles/papers/efron-cocitation.pdf>, website accessed on Friday, May 8th 2009 at 2h49 pm.

ELLISON, N., C. STEINFELD *et al.* (2006), “Spatially bounded online social networks and social capital”, International Communication Association: 36 pages, document available online:

http://balzac.cnsi.ucsb.edu/inscites/wiki/images/8/85/Ellison_et_al_The_Role_of_Facebook.pdf, website accessed on Saturday, May 2nd 2009 at 1h05 pm.

ELLISON, N. B., C. STEINFELD *et al.* (2007), « The benefits of Facebook ‘friends’: Social capital and college students' use of online social network sites”, Journal of Computer-Mediated Communication **12**(4), document available online: <http://jcmc.indiana.edu/vol12/issue4/ellison.html>, website accessed on Friday, April 20th 2009 at 11h02 pm.

ESS, C. (2007), “Internet research ethics” in JOINSON, A. N. and K. MCKENNA (2007), Oxford Handbook of Internet Psychology, Oxford University Press: 508 pages.

ESTER, P. and H. VINKEN (2003), “Debating civil society: on the fear for civic decline and hope for the internet alternative”, International Sociology **18**(4): 659-680, document available online: <http://www.tilburguniversity.nl/globus/seminars/sem02.06a.pdf>, website accessed on Wednesday, April 22nd 2009 at 5h14 pm.

EYSENBACK, G. and J. E. TILL (2001), “Ethical issues in qualitative research on internet communities”, BMJ **323**: 1103-1103.

FALLOWS, D. (2004), “The Internet and daily life”, PEW Internet & American Life Project, 33 pages, document accessible online: http://www.pewinternet.org/pdfs/PIP_Internet_and_Daily_Life.pdf, website visited on Tuesday, November 14th, 2006 at 4h42 pm.

FARRELL, H., E. LAWRENCE *et al.* (2008), “Self-Segregation or Deliberation? Blog Readership, Participation, and Polarization in American Politics”, MidWest Political Science Association: 36 pages, document available online: <http://home.gwu.edu/~jsides/blogs.pdf>, website accessed on Friday, October 10th 2008 at 21h59.

FERGUSON, R. and B. GRIFFITHS (2006), “Thin Democracy? Parliamentarians, Citizens and the Influence of Blogging on Political Engagement”, Parliamentary Affairs **59**: 366-374.

FLANAGIN, A. J. and M. J. METZGER (2008), “The credibility of volunteered geographic information”, GeoJournal **72**(3): 137-148.

FOURNIER, M. (2001), “Quebec Sociology and Quebec Society: The Construction of a Collective Identity”, Canadian Journal of Sociology/Cahiers canadiens de sociologie: 333-347.

FOURNIER, M. (2002), “Quebec sociology: A discipline and its objects”, The American Sociologist **33**(1): 42-54.

FOX, S. (2005), “Digital Divisions”, PEW Internet & American Life Project, http://www.pewinternet.org/pdfs/PIP_Digital_Divisions_Oct_5_2005.pdf, website accessed on Saturday, January 26th 2007 at 3h38 pm.

FRANTZ, T. L. and K. M. CARLEY (2008), “Harvesting Ego-Network Data from Facebook”: 22 pages, document available online: <http://reports-archive.adm.cs.cmu.edu/anon/anon/usr0/ftp/isr2009/CMU-ISR-09-102.pdf>, document accessed on Friday, May 1st 2009 at 1h49 am.

FUCHS, C. (2009), “The Role of Income Inequality in a Multivariate Cross-National Analysis of the Digital Divide”, Social Science Computer Review **27**(1): 41-58.

GAINES, B. J. and J. J. MONDAK (2008), “Typing Together? Clustering of Ideological Types in Online Social Networks”, Politics: Web 2.0: 32 pages, document available online: http://newpolcom.rhul.ac.uk/politics-web-20-paper-download/gaines_mondak_web2conf.pdf, website accessed on Wednesday, May 20th 2009 at 2h45 am.

GIASSON, T., V. RAYNAULD *et al.* (2009), “Political Bloggers and Civic Involvement: Why the Quebec Experience Matters”, Midwest Political Science Association: 30 pages, document available online: http://www.allacademic.com/meta/p362703_index.html, website accessed on Saturday, April 25th 2009 at 11h57 am.

GIASSON, T., V. RAYNAULD *et al.* (2008), “Cartographie de la Blogosphère Politique Québécoise : Utilisateurs, Messages et Intentions”, International Communication Association.

GIBSON, R. K., P. E. N. HOWARD *et al.* (2000), “Social capital, Internet connectedness & political participation: A four-country study”, International Political Science Association, document available online: <http://faculty.washington.edu/pnhoward/publishing/articles/sc.pdf>, website accessed on Thursday, April 9th 2009 at 4h47 pm.

GOAD, R. (2009), “Twitter traffic increases 10-fold in a year”, HitWise, document available online: http://weblogs.hitwise.com/robin-goad/2009/01/twitter_traffic_up_10-fold.html, website accessed on Tuesday, April 21st 2009 at 8h27.

GRABER, D. A. , B. BIMBER. *et al.* (2003), “The Internet and politics: Emerging perspectives. in NISSENBAUM, H., M. PRICE *et al.* (eds.) (2004), The Academy and Internet, New York: Peter Lang.

GRABER, D. A. and J. M. SMITH (2005), “Political communication faces the 21st century”, The Journal of Communication 55(3): 479-507.

GRUSZCZYNSKI, M. W. (2009), “Blogs: Presidential Campaign Framing Among Blogs and the Mainstream Media”, Midwest Political Science Association: 34 pages, document available online: http://www.allacademic.com/meta/p_mla_apa_research_citation/3/6/0/3/9/p360390_index.html, website accessed on Tuesday, May 11th 2009 at 5h32 pm.

GUEORGUIEVA, V. (2007), “Voters, MySpace, and YouTube: The Impact of Alternative Communication Channels on the 2006 Election Cycle and Beyond”, Social Science Computer Review, 1-13.

GUILLÉN, M. F. and S. L. SUÀREZ (2005), “Explaining the global digital divide: economic, political and sociological drivers of cross-national internet use”, Social Forces: 681-708, document available online: <http://www-management.wharton.upenn.edu/guillen/NewFolder/InternetPolPaper5.SocForces.pdf>, website accessed on Monday, April 13th 2009 at 5h25 pm.

HAN, J. (2007), “From Indifference to Making the Difference: New Networked Information Technologies (NNITs) and Patterns of Political Participation Among Korea’s Younger Generations”, Journal of Information Technology & Politics 4(1): 57-76.

HARGITTAI, E. (2007), “Whose space? Differences among users and non-users of social network sites”, Journal of Computer-Mediated Communication 13(1), document available online: <http://jcmc.indiana.edu/vol13/issue1/hargittai.html>, website accessed on Monday, April 20th 2009 at 12h45 pm.

HARGITTAI, E. and A. HINNANT (2008), “Digital Inequality: Differences in Young Adults' Use of the Internet”, Communication Research 35(5): 602-621, document available online: http://ciilib.org:8000/ciil/Fulltext/Communication_Research_Vol_33_No_6_06/Vol_35_5_2008/Article_2.pdf, website accessed on Wednesday, April 16th 2009 at 12h25 pm.

HARRISON, T. M. and B. BARTHEL (2009), “Wielding new media in Web 2.0: exploring the history of engagement with the collaborative construction of media products”, New Media & Society 11(1-2): 155-178.

HAZLEWOOD, W. R., K. MAKIC *et al.* (2008), “Twitterspace: A Co-developed Display using Twitter to Enhance Community Awareness”, document available online: <http://www.wr hazlewood.com/~whazlewo/publications/pdc2008.pdf>, website accessed on Thursday, April 30th 2009 at 6h25 pm.

HERMANN, H. (2008), “Mobile Democracy: Mobile Phones as Democratic Tools”, Politics 28(2): 74-82.

HERRING, S. C. (2007), “Questioning the Generational Divide: Technological Exoticism and Adult Constructions of Online Youth Identity”, The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning: 71-92, document available online: <http://www.mitpressjournals.org/doi/abs/10.1162/dmal.9780262524834.071>, website accessed on Wednesday, May 20th 2009 at 4h50 pm.

HERRING, S. C. and J. C. PAOLILLO (2006), “Gender and genre variation in weblogs”, Journal of Sociolinguistics **10**(4): 439-459, document available online: <http://www.blogninja.com/jslx.pdf>, website accessed on Tuesday, May 11th 2009 at 10h45 pm.

HERRING, S. C., I. KOUPER *et al.* (2005), “Conversations in the Blogosphere: An Analysis" From the Bottom Up”, Proceedings of the 38th Hawaii International Conference on System Sciences, document available online: <http://www.blogninja.com/hicss05.blogconv.pdf>, website accessed on Saturday, September 20th 2008 at 2h05 pm.

HERRING, S. C., L. A. SCHEIDT *et al.* (2004), “Bridging the gap: A genre analysis of weblogs”, Proceedings of the Proceedings of the 37th Annual Hawaii International Conference on System Sciences: pp. 1-11, document available online: <http://www.ics.uci.edu/~jpd/classes/ics234cw04/herring.pdf>, website accessed on Saturday, March 14th 2009 at 3h30 pm.

HERRING, S. C., L. A. SCHEIDT *et al.* (2005), “Weblogs as a bridging genre”, Information Technology & People **18**(2): 142-171.

HEWITT, A. and A. FORTE (2006), “Crossing boundaries: Identity management and student/faculty relationships on the Facebook”, Computer Supported Cooperative Work: 4-8, document available online: <http://www.cc.gatech.edu/~aforte/HewittForteCSCWPoster2006.pdf>, website accessed on Monday, April 20th 2009 at 4h50 pm.

HILL, S., J. LO *et al.* (2007), “The opt-in internet panel: Survey mode, sampling methodology and the implications for political research”, Unpublished manuscript at the University of California, Los Angeles: 23 pages, document available online: <http://web.mit.edu/polisci/portl/cces/material/HillLoVavreckZaller2007.pdf>, website accessed on Wednesday, April 15th 2009 at 11h05 am.

HINDUJA, S. and J. W. PATCHIN (2008), “Personal information of adolescents on the Internet: A quantitative content analysis of MySpace”, Journal of Adolescence **31**(1): 125-146.

HOOGHE, M. and W. TEEPE (2007), “Party profiles on the web: an analysis of the logfiles of non-partisan interactive political internet sites in the 2003 and 2004 election campaigns in Belgium”, New Media & Society **9**(6): 965-985.

HOOKWAY, N. (2008), “Entering the blogosphere: some strategies for using blogs in social research”, Qualitative Research **8**(1): 91-113.

HUFFAKER, D. A. and S. L. CALVERT (2005), “Gender, identity, and language use in teenage blogs”, Journal of Computer-Mediated Communication **10**(2), document available online: <http://jcmc.indiana.edu/vol10/issue2/huffaker.html>, website accessed on Wednesday, March 11th 2009 at 0h53 am.

HUNSINGER, J. (2005), “Toward a Transdisciplinary Internet Research”, The Information Society **21**(4): 277-279.

INSTITUT DE LA STATISTIQUE DU QUÉBEC (2009), “Estimation de la population des régions administratives, 1er juillet des années 2006 à 2008”, document available online: http://www.stat.gouv.qc.ca/donstat/societe/demographie/dons_regnl/regional/ra_2006-2008.htm, website accessed on Sunday, April 26th 2009 at 6h57 pm.

IYENGAR, S. (2002), “Experimental designs for political communication research: From shopping malls to the Internet”, Workshop in Mass Media Economics: 30 pages, document available online: <http://pcl.stanford.edu/common/docs/research/iyengar/2002/expdes2002.pdf>, website accessed on Wednesday, May 6th 2009 at 7h40 pm.

JAVA, A., X. SONG *et al.* (2007), “Why we twitter: understanding microblogging usage and communities”, Proceedings of the Joint 9th WEBKDD and 1st SNA-KDD Workshop: 10 pages, document available online: <http://aisl.umbc.edu/get/softcopy/id/1073/1073.pdf>, website accessed on Saturday, March 21st 2009 at 3h21 pm.

JOHNSON, T. J. and B. K. KAYE (2004), "Wag the Blog: How Reliance on Traditional Media and the Internet Influence Credibility Perceptions of Weblogs among Blog Users", Journalism & Mass Communication Quarterly **81**(3): 622-642.

JOHNSON, T. J., B. K. KAYE *et al.* (2007), "Every blog has its day: Politically-interested Internet users' perceptions of blog credibility", Journal of Computer-Mediated Communication, 13(1), document available online: <http://jcmc.indiana.edu/vol13/issue1/johnson.html>, website accessed on Sunday, May 2nd 2009 at 5h08 pm.

JOHNSON, T. J., B. K. KAYE *et al.* (2007), "Politically Interested Internet Users' Perceptions of Blog Credibility", International Communication Association: 37 pages, document available online: http://www.allacademic.com/meta/p172212_index.html, website accessed on May 3rd 2009 at 7h55.

JOHNSON, T. J. and B. K. KAYE (2009), "In blog we trust? Deciphering credibility of components of the internet among politically interested internet users", Computers in Human Behaviour **25**(1): 175-182.

JONES, D. A. (2004), "Why Americans Don't Trust the Media: A Preliminary Analysis", The Harvard International Journal of Press/Politics **9**(2): 60-75.

JONES, S. and S. FOX (2009), "Generations Online in 2009", PEW Internet & American Life Project, document available online: <http://pewresearch.org/pubs/1093/generations-online>, website accessed on Monday, March 23rd 2009 at 6h22 pm.

KAMPITAKI, D., E. TAMBOURIS *et al.* (2008), "eElectioneering: Current Research Trends", Lecture Notes in Computer Science **5184**: 184-194.

KARPF, D. (2008), "Understanding Blogspace", Journal of Information Technology & Politics **5**(4): 369-385.

KARPF, D. (2009), "Stability and Change in the Blogosphere in the 2008 Election", Midwest Political Science Association: 43 pages, document available online: <http://davekarpf.files.wordpress.com/2009/04/stability-and-change-in-the-blogosphere-08-mpsa.pdf>, website accessed on Thursday, May 7th 2009 at 6h53 pm.

KAVANAUGH, A. L., T. T. ZIN *et al.* (2006), "When opinion leaders blog: new forms of citizen interaction", document available online, <http://java.cs.vt.edu/public/projects/digitalgov/papers/DG06.KavanaughEtAl.3.3.06.pdf>, website accessed on Monday, October 20th 2008 at 18h33.

KAYE, B. K. (2005), "It's a Blog, Blog, Blog World: Users and Uses of Weblogs." Atlantic Journal of Communication **13**(2): 73-95.

KAYE, B. K. (2005), "Web side story: An exploratory study of why weblog users say they use weblogs", AEJMC Annual Conference, document available online: <http://www.journalism.wisc.edu/blog-club/Site/Kaye2.pdf>, website accessed on Thursday, May 14th 2009 at 4h46 pm.

KAYE, B. K. and T. J. JOHNSON (2004), "A Web for all reasons: uses and gratifications of Internet components for political information", Telematics and Informatics **21**(3): 197-223.

KENNEDY, G., B. DALGARNO *et al.* (2007), "The Net Generation are not Big Users of Web 2.0 Technologies: Preliminary Findings", Proceedings ascilite Singapore: 517-525, document available online: <http://www.ascilite.org.au/conferences/singapore07/procs/kennedy.pdf>, website accessed on Wednesday, April 29th 2009 at 1h44 am.

KENSKI, K. and N. J. STROUD (2006), "Connections Between Internet Use and Political Efficacy, Knowledge, and Participation", Journal of Broadcasting & Electronic Media **50**(2): 173-192.

KIM, S. T. and D. H. WEAVER (2002), "Communication research about the internet: a thematic meta-analysis", New Media & Society **4**(4): 518-539.

KOLBITSCH, J. and H. MAURER (2006), "The transformation of the Web: how emerging communities shape the information we consume", Journal of Universal Computer Science **12**(2): 187-213.

KORUPP, S. E. and M. SZYDLIK (2005), “Causes and trends of the digital divide”, European Sociological Review 21(4): 409-422, <http://www.suz.uzh.ch/szydlk/publikationenszydlk/PAGES-06.pdf>, document accessed on Monday, April 13th 2009 at 7h49 pm.

KUHN, M. (2007), “Interactivity and prioritizing the human: A code of blogging ethics”, Journal of Mass Media Ethics 22(1): 18-36, document available online: <http://students.jmc.ksu.edu/classes/mc720/pdfs/bloggerethics.pdf>, website accessed on Saturday, May 2nd 2009 at 4h24 pm.

KUSHIN, M. J. and K. KITCHNER (2009), “Getting Political on Social Network Sites: Exploring Online Political Discourse on Facebook”, Western States Communication Association: 32 pages, document available online: http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID1300565_code1155178.pdf?abstractid=1300565&mirid=1, website accessed on Friday, March 20th 2009 at 3h57 pm.

KUSHIN, M. J. and K. KITCHNER (2009), “Getting Political on Social Network Sites: Exploring Online Political Discourse on Facebook”, Western States Communication Association: 32 pages, document available online: http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID1300565_code1155178.pdf?abstractid=1300565&mirid=1, website accessed on Friday, April 17th 2009 at 0h22 am.

KUSHIN, M. J. and M. YAMAMOTO (2009), “Searching for Media Complementarity: Use of Social Network Sites and Other Online Media for Campaign Information Among Young Adults”, Western States Communication Association: 33 pages, document available online: http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID1300694_code1155178.pdf?abstractid=1300694&mirid=1, website accessed on Friday, March 20th 2009 at 12h59 pm.

KVASNY, L. (2005), “The role of the habitus in shaping discourses about the digital divide”, Journal of Computer-Mediated Communication 10(2), document available online: <http://jcmc.indiana.edu/vol10/issue2/kvasny.html>, website accessed on Tuesday, April 14th 2009 at 12h30 pm.

LAMPE, C. A. C., N. ELLISON *et al.* (2007), “A familiar face (book): profile elements as signals in an online social network”, Proceedings of the SIGCHI conference on Human factors in computing systems: 435-444.

LANG, M. (2002), “The use of web-based international surveys in information systems research”, Proceedings of European Conference on Research: 12 pages, document available online: http://www.is.nuigalway.ie/mlang/research/ECRM_2002.pdf, website accessed on Thursday, May 21st 2009 at 6h46 pm.

LENHART, A. (2000), “Who’s Not on Line? 57 Percent of those Without Internet Access Say they do not Plan to Log On”, Pew Internet & American Life Project, document available online: <http://www.pewinternet.org/Press-Releases/2000/Whos-Not-Online-57-of-those-without-Internet-access-say-they-do-not-plan-to-log-on.aspx>, website accessed on Tuesday, April 14th 2009 at 2h40 pm.

LENHART, A. (2009), “Adults and Social Network Websites”, PEW Internet & American Life Project: 16 pages, document available online: http://www.pewinternet.org/~media/Files/Reports/2009/PIP_Adult_social_networking_data_memo_FINAL.pdf, website accessed on Friday, March 20th 2009 at 7h04 pm.

LENHART, A., M. MADDEN *et al.* (2007), “Teens and Social Media”, PEW Internet & American Life Project, 36 pages, document accessible online: http://www.pewinternet.org/~media/Files/Reports/2007/PIP_Teens_Social_Media_Final.pdf.pdf, website accessed on Friday, March 20th 2009 at 11h19 pm.

LENHART, A. and S. FOX (2009), “Twitter and Status Updating”, PEW Internet & American Life Project: 1-6, document available online: <http://www.pewinternet.org/~media/Files/Reports/2009/PIP%20Twitter%20Memo%20FINAL.pdf>, website accessed on Saturday, March 21st 2009 at 2h51 pm.

- LENTO, T., H. T. WELSER *et al.* (2006), “The ties that blog: Examining the relationship between social ties and continued participation in the wallop weblogging system”, Annual Workshop on the Weblogging Ecosystem, document available online: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.61.6907&rep=rep1&type=pdf>, website accessed on Tuesday, April 19th 2009 at 7h51 pm.
- LEWIS, K., J. KAUFMAN *et al.* (2008), “Tastes, ties, and time: A new social network dataset using Facebook.com”, Social Networks **30**(4): 330-342.
- LI, D. (2007), “Why Do You Blog: A Uses-and-Gratifications Inquiry Into Bloggers’ Motivations”, International Communication Association: 37 pages, document available online: http://www.allacademic.com/meta/p171490_index.html, Website accessed on Thursday, May 14th 2009 at 4h32 pm.
- LIU, H. (2007), “Social network profiles as taste performances”, Journal of Computer-Mediated Communication **13**(1), document available online: <http://jcmc.indiana.edu/vol13/issue1/liu.html>, website accessed on Monday, April 20th 2009 at 4h55 pm.
- LIVINGSTONE, S., M. BOBER *et al.* (2005), “Active participation or just more information?”, Information, Communication & Society **8**(3): 287-314.
- LOWREY, W. and W. ANDERSON (2005), “The journalist behind the curtain: Participatory functions on the Internet and their impact on perceptions of the work of journalism”, Journal of Computer-Mediated Communication **10**(3), <http://jcmc.indiana.edu/vol10/issue3/lowrey.html>, website accessed on Sunday, April 6th, 2008 at 0h45.
- LUSOLI, W. (2005), “A second-order medium? The Internet as a source of electoral information in 25 European countries”, Information Polity **10**(3): 247-265.
- LUSOLI, W. and J. WARD (2005), “‘Politics Makes Strange Bedfellows’: The Internet and the 2004 European Parliament Election in Britain”, The Harvard International Journal of Press/Politics **10**(4): 71-97, document available online: http://www.esri.salford.ac.uk/ESRCResearchproject/papers/lusoli_2004_aoir.pdf, website accessed on Tuesday, July 29th 2008 at 2h41 pm.
- MACKAY, J. and W. LOWREY (2008), “The Credibility Divide: Reader Trust of Online Newspapers and Blogs”, International Communication Association, document available online: http://www.allacademic.com/meta/p173266_index.html, website accessed on Wednesday, November 26th 2008 at 9h44.
- MACZEWSKI, M., M. A. STOREY *et al.* (2004), “In Internet-Mediated Research Environments” in BUCHANAN, E. A. (2004, Readings in Virtual Research Ethics: Issues and Controversies, Idea Group Inc.: 362 pages.
- MADDEN, M. (2006), “Internet penetration and impact”, PEW Internet & American Life Project, 5 pages, document accessible online: http://www.pewinternet.org/pdfs/PIP_Internet_Impact.pdf, website visited on Thursday, November 9th, 2006 at 10h12 am.
- MANBER, U. (1996), “Future directions and research problems in the World Wide Web”, Proceedings of the 15th ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems: 213-215.
- MARIËN, S., M. HOOGHE *et al.* (2009), “Inequalities in Non-Institutionalized Forms of Political Participation: A Multilevel Analysis for 26 countries”, Political Studies, document available online: <http://www.partirep.eu/upload/publications/1228923478.pdf>, website accessed on Friday, April 22nd 2009 at 12h54 pm.
- MARSCHALL, M. J. (2004), “Citizen participation and the neighborhood context: A new look at the coproduction of local public goods”, Political Research Quarterly **57**(2): 231-244.

- MARTIN, D. (2009), "Twitter Quitters Post Roadblock to Long-Term Growth", Nielsen, http://blog.nielsen.com/nielsenwire/online_mobile/twitter-quitters-post-roadblock-to-long-term-growth/, website accessed on Friday, May 1st 2009 at 0h45 am.
- MARTIN, S. P. (2003), "Is the digital divide really closing? A critique of inequality measurement in a nation online", IT & Society 1(4): 1-13, document available online: <http://www.doaj.org/doaj?func=further&passMe=www.stanford.edu/group/siqss/itandsociety/v01i04/v01i04a01.pdf>, website accessed on Monday, April 13th 2009 at 7h32 pm.
- MCKENNA, L. and A. POLE (2004), "Do blogs matter? Weblogs in American politics." American Political Science Association: 35 pages, document available online: http://www.allacademic.com/one/apsa/apsa04/index.php?cmd=Download+Document&key=unpublished_manuscript&file_index=2&pop_up=true&no_click_key=true&attachment_style=attachment&PHPSESSID=5e42bf1175940f77a83a4697b0a7f509, website accessed on Thursday, May 15th 2008 at 7h14 pm.
- MEIJER, A., N. BURGER *et al.* (2009), "Citizens4Citizens: Mapping Participatory Practices on the Internet", Electronic Journal of e-Government 7(1): 99-112, document available online: <http://www.ejeg.com/volume-7/vol7-iss1/Meijer.pdf>, website accessed on Sunday, April 26th 2009 at 1h41 pm.
- MILLER, L. (2008), "E-Petitions at Westminster: the Way Forward for Democracy?", Parliamentary Affairs 62(1): 162-177.
- MILLIKEN, M. C. and S. O'DONNELL (2008), "User-generated Online Video and the Atlantic Canadian Public Sphere: A YouTube Study", International Communication Association, document available online: <http://www.iit-iti.nrc-cnrc.gc.ca/iit-publications-iti/docs/NRC-50362.pdf>, website accessed on Friday, April 10th 2009 at 4h31 pm.
- MISHNE, G. (2006), "Information access challenges in the blogspace", Proceedings of IIIA, document available online: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.103.9533&rep=rep1&type=pdf>, website accessed on Thursday, May 7th 2009 at 4h59 pm.
- MISLOVE, A., H. S. KOPPULA *et al.* (2008), "Growth of the Flickr social network", Proceedings of the 1st ACM SIGCOMM Workshop on Social Networks: 25-30, document available online: <http://www.sigcomm.org/sigcomm2008/workshops/wosn/papers/p25.pdf>, website accessed on Saturday, March 21st 2009 at 2h00 pm.
- MONTGOMERY, K. C. (2007), "Youth and digital democracy: intersections of practice, policy, and the marketplace", The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning: 25-49, document available online: <http://www.mitpressjournals.org/doi/pdf/10.1162/dmal.9780262524827.025>, website accessed on Thursday, April 30th 2009 at 5h28 pm.
- MONTGOMERY, K. C., B. GOTTLIEB-ROBLES *et al.* (2004), "Youth as e-citizens: Engaging the Digital Generation", Center for Social Media: 155 pages, document available online: <http://dspace.wrlc.org/bitstream/1961/4649/1/youthreport.pdf>, website accessed on Sunday, May 10th 2009 at 4h03 pm.
- MOORMAN, P. J. (2004), "Mining Information Gold in the Blogosphere-How to Use Web Logs as Reliable Research Tools", AALL Spectrum 9: 14-16, document available online: http://www.aall.org/products/pub_sp0411/pub_sp0411_Mining.pdf, website accessed on Friday, May 8th 2009 at 12h00 pm.
- MORRIS, M. and C. OGAN (1996), "The Internet as mass medium", Journal of Communication 46(1): 39-50.
- NANCARROW, C. J. PALLISTER *et al.* (2001), "A new research medium, new research populations and seven deadly sins for Internet researchers", Qualitative Market Research: An International Journal 4(3): 136-149.
- NARDI, B. A., D. J. SCHIANO *et al.* (2004), "Blogging by the Rest of Us", Conference on Human Factors in Computing Systems: 1143-1146.

NARDI, P. M. (2006). Doing survey research : a guide to quantitative methods. Boston, Pearson/Allyn & Bacon: 240 pages.

NEWHAGEN, J. E. and S. RAFAELI (1996), “Why communication researchers should study the Internet: A dialogue”, Journal of Communication 46(1): 4-13, document available online: <http://jcmc.indiana.edu/vol1/issue4/rafaeli.html>, website accessed on Wednesday, May 6th 2008 at 12h10 pm.

NORRIS, P. (2008), “The impact of the Internet on political activism: evidence from Europe” in ROMM, C. T. C. ROMM-LIVERMORE *et al.*, Social Networking Communities And E-Dating Services: Concepts and Implications, Idea Group Inc: 398 pages.

NOSEK, B. A., M. R. BANAJI *et al.* (2002), “E-research: Ethics, security, design, and control in psychological research on the Internet”, Journal of Social Issues 58(1): 161-176, document available online: <http://www.kent.ac.uk/psychology/studying/literature/handbooks/ethics/nosek2002.pdf>, website accessed on Tuesday, April 28th 2009 at 12h58 pm.

NYLAND, R., R. MARVEZ *et al.* (2007), “MySpace: Social Networking or Social Isolation”, Association for Education in Journalism and Mass Communication: 23-24, document available online: http://www.gentletrants.com/wp-content/uploads/2007/03/Nyland_Myspace%20isolation.pdf, website accessed on Tuesday, April 21st 2009 at 6h51 pm.

O'NEILL, B (2007), “Indifferent Or Just Different? The Political and Civic Engagement of Young People in Canada”, Canadian Policy Research Network: 38 pages, document available online: http://www.cprn.com/documents/48504_EN.pdf, website accessed on Monday, August 25th 2008 at 11h31.

PAPACHARISSI, Z. (2002), “The self online: The utility of personal home pages”, Journal of Broadcasting & Electronic Media 46(3): 346-368, document available online: <http://www.blogresearch.com/articles/7461366.pdf>, website accessed on Friday, May 8th 2009 at 1h08 am.

PEDERSEN, S. and C. MACAFEE (2006), “The practices and popularity of British bloggers”, Proceedings ELPUB2006 Conference on Electronic Publishing: 155-164, document available online: http://elpub.scix.net/data/works/att/213_elpub2006_content.pdf, website accessed on Tuesday, May 5th 2009 at 11h51 am.

PEW GLOBAL ATTITUDES PROJECT (2006), “Truly a World Wide Web: Globe Going Digital”, PEW Global Attitudes Project: 1-6, document available online: <http://pewglobal.org/reports/display.php?ReportID=251>, website accessed on Saturday, March 1st 2008 at 4h20 pm.

PFEIL, U., R. ARJAN *et al.* (2008), “Age differences in online social networking: A study of user profiles and the social capital divide among teenagers and older users in MySpace”, Computers in Human Behavior 25(3): 643-654.

POLE, A. (2007), “Black bloggers and the blogosphere”, International Conference of Technology, Knowledge, and Society: 20 pages, document available online: http://www.mdcbowen.org/cobb/archives/pole_black_bloggers.pdf, website accessed on Tuesday, May 11th 2009 at 10h34 pm.

PORTER, L. V., K. D. SWEETSER *et al.* (2007), “Blog power: Examining the effects of practitioner blog use on power in public relations”, Public Relations Review 33(1): 92-95, document available online: <http://www.kayesweetser.com/wp-content/uploads/2007/03/porteretal2007blogpower.pdf>, website accessed on Thursday, May 14th 2009 at 3h55 pm.

QIAN, H., and C. R. SCOTT (2007), “Anonymity and self-disclosure on weblogs”, Journal of Computer-Mediated Communication 12(4), document available online: <http://jcmc.indiana.edu/vol12/issue4/qian.html>, website accessed on Monday, March 16th 2009 at 0h17 am.

QUAN-HAASE, A., B. WELLMAN *et al.* (2002), “Capitalizing on the net: Social contact, civic engagement, and sense of community” in WELLMAN, B. and C. A. HAYTHORNTHWAITE (2002), The Internet in everyday life, Wiley-Blackwell: 588 pages.

- RACKAWAY, C. (2007), “Trickle-Down Technology? The Use of Computing and Network Technology in State Legislative Campaigns”, Social Science Computer Review 25(4): 466-483, document available online: <http://files.overskyverne.dk/Valg%202007/Social%20Science%20Computer%20Review.%2011%202007%3B%20vol.%2025/State%20Legislative%20CampaignsTrickle-Down%20Technology%3F%20The%20Use%20of%20Computing%20and%20Network%20Technology%20in%20%20.pdf>, website accessed on Wednesday, April 23rd 2008 at 14h24.
- RHEE, K. Y. and W. B. KIM (2004), “The adoption and use of the Internet in South Korea”, Journal of Computer-Mediated Communication 9(4), document available online: <http://jcmc.indiana.edu/vol9/issue4/rhee.html>, website accessed on Thursday, April 16th 2009 at 5h35 pm.
- RICE, R. E. (2005), “New media/Internet research topics of the Association of Internet Researchers”, The Information Society 21(4): 285-299, document available online: <http://repositories.cdlib.org/cgi/viewcontent.cgi?article=2827&context=postprints>, website accessed on Tuesday, May 5th 2009 at 1h28 am.
- RIDEOUT, V. N. and A. J. REDDICK (2005), “Sustaining Community Access to Technology: Who Should Pay and Why”, The Journal of Community Informatics 1(2), document available online: <http://ci-journal.net/index.php/ciej/article/viewArticle/202/161> website accessed on Thursday, April 30th 2009 at 12h41 am.
- ROBERTS, M., W. WANTA *et al.* (2002), “Agenda setting and issue salience online”, Communication Research 29(4): 452-465.
- ROBERTS, N. (2004), “Public deliberation in an age of direct citizen participation”, The American Review of Public Administration 34(4): 315-353.
- ROCHER, F. (2002), “The evolving parameters of Quebec nationalism”, International Journal on Multicultural Societies 4(1): 75-97.
- ROTH, M. M. (2004), “How journalists see the Blogosphere”, Annenberg School for Communication, University of Pennsylvania: 34 pages, document available online: <http://www.glog.nl/wiki/upload/docs/how%20journalists%20see%20the%20blogosphere.pdf>, website accessed on Thursday, May 7th 2009 at 5h57 pm.
- SAUNDERS, E. (2007), “Youth Engagement, Political Participation and Civic Education”, Citizen Participation in the EU and Canada: Challenges and Change Conference.
- SCHLOZMAN, K. L., S. VERBA *et al.* (2009), “The Weapon of the Strong? Participatory Inequality and the Internet Revolution”, MidWest Political Science Association: 54 pages, document available online: http://www.allacademic.com/meta/p361714_index.html, website accessed on Friday, April 10th 2009 at 2h24 pm.
- SCHMIDT, J. (2007), “Blogging practices: An analytical framework”, Journal of Computer-Mediated Communication 12(4), document available online: <http://jcmc.indiana.edu/vol12/issue4/schmidt.html>, website accessed on Monday, May 11th 2009 at 11h35 am.
- SCHNEIDER, S. M. and K. A. FOOT (2004), “The web as an object of study”, New Media and Society 6(1): 114-122.
- SHADE, L. R. (1999), “Net Gains: Does Access Equal Equity?”, Journal of Information Technology Impact 1(1): 23-39, document available online: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.11.5507&rep=rep1&type=pdf>, website accessed on Thursday, April 30th 2009 at 12h44 pm.
- SHEEHAN, K. B. (2002), “Online research methodology: reflections and speculations”, Journal of Interactive Advertising 3(1), document available online: <http://jiad.org/article30>, website accessed on Tuesday, April 28th 2009 at 5h58 pm.

SHELLEY, M. C., L. E. THRANE *et al.* (2004), "Generational differences in informational technology use & political involvement", International Journal of Electronic Government Research 2(1): 36-53, document available online: <http://www.reference.com/go/http://shulman.ucsur.pitt.edu/doc/Papers/gendiff.pdf>, website accessed on Tuesday, April 14th 2009 at 1h14 am.

SHELLEY, M. C., L. E. THRANE *et al.* (2006), "Lost in cyberspace: barriers to bridging the digital divide in e-politics", International Journal of Internet and Enterprise Management 4(3): 228-243, document available online: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.89.1239&rep=rep1&type=pdf>, website accessed on Monday, April 27th 2009 at 7h28.

SIAPERA, E. (2008), "The political subject of blogs", Information Polity 13(1): 51-63

SIFRY, D. (2004), "State of the Blogosphere, October 2004", <http://www.sifry.com/alerts/archives/000245.html>, website accessed on Saturday, January 26rd 2008 at 3h54 pm.

SIFRY D. (2005), "State of the Blogosphere, August 2005, Part 1: Blog Growth", <http://www.sifry.com/alerts/archives/000332.html>, website accessed on Saturday, January 26rd 2008 at 4h06 pm.

SIFRY, D. (2005), "State of The Blogosphere, March 2005, Part 1: Growth of Blogs", <http://www.sifry.com/alerts/archives/000298.html>, website accessed on Saturday, January 26rd 2008 at 3h51 pm.

SIFRY, D. (2005), "State of the Blogosphere, October 2005 Part 1: On Blogosphere Growth", <http://www.sifry.com/alerts/archives/000343.html>, website accessed on Saturday, January 26rd 2008 at 3h49 pm.

SIFRY, D. (2006), "State of the Blogosphere, August 2006", <http://www.sifry.com/alerts/archives/000436.html>, website accessed on Saturday, January 26rd 2008 at 4h13 pm.

SIFRY, D. (2006), "State of the Blogosphere, October, 2006", <http://technorati.com/weblog/2006/11/161.html>, website accessed on Saturday, January 26rd 2008 at 3h44 pm.

SIFRY, D. (2007), "The State of the Live Web, April 2007", <http://www.sifry.com/alerts/archives/000493.html>, website accessed on Saturday, January 26th 2008 at 3h32 pm.

SINGER, J. B. (2005), "The political j-blogger: 'Normalizing' a new media form to fit old norms and practices", Journalism 6(2): 173-198.

SMALL, T. A. (2008), "Blogging the Hill: Garth Turner and the Canadian Parliamentary Blogosphere", Canadian Political Science Review 2(3): 103-124.

SMALL, T. A. (2008). "The Facebook Effect? On-Line Campaigning in the 2008 Canadian and US Elections" Policy: 85-87, document available online: <http://www.irpp.org/po/archive/nov08/small.pdf>, website accessed on Saturday, March 21st 2009 at 3h52 pm.

SMITH, A. (2009), "The Internet's Role in Campaign 2008", PEW Internet & American Life Project: 92 pages, document available online: <http://www.pewinternet.org/Reports/2009/6--The-Internets-Role-in-Campaign-2008.aspx>, website accessed on Wednesday April 15th 2009 at 7h42 pm.

SPILLMAN, M, L. DEMO *et al.* (2007), "The Weblog Forest: The effectiveness of staff-produced blogs in engaging newspaper audiences in conversation", Association for Education in Journalism and Mass Communication: 29 pages, document available online: http://www.allacademic.com/one/www/www/index.php?cmd=Download+Document&key=unpublished_manuscript&file_index=2&pop_up=true&no_click_key=true&attachment_style=attachment&PHPSESSID=0a781749a2cc6608085e5bcfe065a487, website accessed on Thursday, January 15th 2009 at 1h04 am.

STEVENSON, D. (2007), "Presumption against Regulation: Why Political Blogs Should Be (Mostly) Left Alone", Journal of Science & Technology Law 13, document available online: http://www.bu.edu/law/central/jd/organizations/journals/scitech/volume131/documents/Stevenson_WEB.pdf, website accessed on Sunday, May 3rd 2009 at 5h00 pm.

STOLLE, D. and M. MICHELETTI (2005), "The Expansion of Political Action Repertoires: Theoretical Reflections on Results from the Nike Email Exchange Internet Campaign", *American Political Science Association*: 38 pages, document available online: http://convention2.allacademic.com/getfile.php?file=apsa05_proceeding/2005-09-13/41555/apsa05_proceeding_41555.pdf, website accessed on Tuesday, April 28th 2009 at 6h30 pm.

STRANDBERG, K. (2008), "Online Electoral Competition in Different Settings: A Comparative Meta-Analysis of the Research on Party Websites and Online Electoral Competition", *Party Politics* **14**(2): 223-244.

SUBRAHMANYAM K., S., M. REICH *et al.* (2008), "Online and offline social networks: Use of social networking sites by emerging adults", *Journal of Applied Developmental Psychology* **29**(6): 420-433, document available online: <http://www.cdmc.ucla.edu/downloads/SubraReichetal.pdf>, website accessed on Tuesday, April 21st 2009 at 12h00 pm.

SU, N. M., Y. WANG, *et al.* (2005). "Politics as Usual in the Blogosphere." *Proceedings of the 4th International Workshop on Social Intelligence Design*, document available online: <http://www.isr.uci.edu/~normsu/papers/Su-Politics-SID05.pdf>, website accessed on Wednesday, March 26th 2008 at 0h40.

SUNDAR, S. S., H. H. EDWARDS *et al.* (2007), "Blogging for better health: Putting the 'public' back in public health" in TREMAYNE, M. (2007), *Blogging, citizenship, and the future of media*, CRC Press, 287 pages

SUNSTEIN, C. R. (2008), "Neither hayek nor habermas", *Public Choice* **134**(1): 87-95, document available online: <http://www.springerlink.com/content/b816710714662147/fulltext.pdf>, website accessed on Tuesday, May 5th 2009 at 12h31 pm.

SUTTON, J., L. PALEN *et al.* (2008), "Back-Channels on the Front Lines: Emerging Use of Social Media in the 2007 Southern California Wildfires", *Proceedings of the 2008 Information Systems for Crisis Response and Management Conference*: 9 pages, document available online, <http://www.cs.colorado.edu/~palen/Papers/isgram08/BackchannelsISGRAM08.pdf>, website accessed on Saturday, March 21st 2009 at 1h45 pm.

SWEETSER, K. D., G. J. GOLAN *et al.* (2008), "Intermedia agenda setting in television, advertising, and blogs during the 2004 election", *Mass Communication and Society* **11**(2): 197-216.

SWEETSER, K. D. and L. L. KAID (2008), "Stealth soapboxes: political information efficacy, cynicism and uses of celebrity weblogs among readers", *New Media & Society* **10**(1), 67-91.

SWEETSER, K. D. and R. W. LARISCY (2008), "Candidates Make Good Friends: An Analysis of Candidates' Uses of Facebook", *International Journal of Strategic Communication* **2**(3): 175-198.

THELWALL, M., A. BYRNE *et al.* (2007), "Which types of news story attract bloggers?", *Information Research* **12**(4), document available online: <http://dialnet.unirioja.es/servlet/articulo?codigo=2390575&orden=138936&info=link>, website accessed on Monday, May 11th 2009 at 12h12 pm.

THRANE, L. E. and S. W. SHULMAN (2007), "Generational Differences in IT Use and Political Involvement: New Directions" in NORRIS, D. (2007), *E-government Research: Policy and Management*, Idea Group inc.: 364 pages.

TRAMMELL, K. D. and A. KESHELASHVILI (2005), "Examining the new influencers: A self-presentation study of A-list blogs", *Journalism & Mass Communication Quarterly* **82**(4): 968-982.

TRAMMELL, K. D., A. P. WILLIAMS *et al.* (2006), "Evolution of online campaigning: Increasing interactivity in candidate Web sites and blogs through text and technical features", *Mass Communication and Society* **9**(1): 21-44.

TRAMMELL, K. D., A. TARKOWSKI *et al.* (2006), "Rzeczpospolita blogów [Republic of Blog]: Examining Polish bloggers through content analysis", *Journal of Computer-Mediated Communication* **11**(3), document available online: <http://jcmc.indiana.edu/vol11/issue3/trammell.html>, website accessed on Friday, May 8th 2009 at 0h59 am.

TRAYNOR, J., M. POITEVINT *et al.* (2008), "On the ballot and in the loop: The dialogic capacity of campaign blogs in the 2008 election", Association for Education in Journalism and Mass Communication Conference: 36 pages, document available online: <http://www.grady.uga.edu/reports/Campaign07.pdf>, website accessed on Tuesday, May 5th 2009 at 3h58 pm.

TRIPPI, J. (2004), This revolution will not be televised: Democracy, the Internet and the overthrow of everything, New York, HarperCollins publishers, 272 pages.

TUFEKCI, Z. (2008), "Can you see me now? Audience and disclosure regulation in online social network sites", Bulletin of Science, Technology & Society **28**(1): 20-36, document available online: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.84.1021&rep=rep1&type=pdf>, website accessed on Tuesday, April 21st 2009 at 11h48 am.

VEENSTRA, A. S., B. SAYRE *et al.*, "Sticking Together Online: Political Participation and Ideologically Homogeneous Blog Consumption", American Association for Public Opinion Research, document available online: <http://www.journalism.wisc.edu/smad/papers/veenstra-sayre-thorson-2008a.pdf>, website accessed on Friday, October 31st 2008 at 6h21 pm.

WALLSTEN, K. (2005), "Political Blogs and the Bloggers Who Blog Them: Is the Political Blogosphere and Echo Chamber", American Political Science Association's Annual Meeting: 36 pages, document available online: <http://www.journalism.wisc.edu/blog-club/Site/Wallsten.pdf>, website accessed on Tuesday, May 6th 2008 at 8h07 pm.

WALLSTEN, K. (2007), "Agenda setting and the blogosphere: An analysis of the relationship between mainstream media and political blogs", Review of Policy Research **24**(6): 567-587.

WALLSTEN, K (2007), "The Blogosphere's Influence on Political Discourse: Is Anyone Listening?", document available online: http://www.internetadvocacycenter.com/thinktank/topics/articles/Wallsten_Blogosphere_Influence_on_Political_Discourse.pdf, website accessed on Saturday, March 7th 2009 at 1h39 pm.

WALTHER, J. B., B. VAN DER HEIDE *et al.* (2008), "The role of friends' appearance and behavior on evaluations of individuals on Facebook: Are we known by the company we keep?", Human Communication Research **34**(1): 28-49, document available online: http://www.msu.edu/~jwalther/vita/pubs/facebook_hcr.pdf, website accessed on Monday, April 20th 2009 at 12h58 am.

WATTS, D. J. (2007), "A twenty-first century science", Nature **445**, 489, document available online: http://cdg.columbia.edu/uploads/papers/watts2007_21century.pdf, website accessed on Friday, May 1st 2009 at 2h07 am.

WEARE, C. and W. Y. LIN (2000), "Content analysis of the World Wide Web: Opportunities and challenges", Social Science Computer Review **18**(3): 272-292.

WHEELER, S., P. YEOMANS *et al.* (2008), "The good, the bad and the wiki: Evaluating student-generated content for collaborative learning", British Journal of Educational Technology **39**(6): 987-995.

WILLIAMS, C. B. and G. J. GULATI (2007), "Social Networks in Political Campaigns: Facebook and the 2006 Midterm Election", American Political Science Association: 23 pages, document available online: http://www.bentley.edu/news-events/pdf/Facebook_APSA_2007_final.pdf, website accessed on Saturday, February 16th 2008 at 01h25.

WILLIAMS, C. B. and G. J. GULATI (2008), "The Political Impact of Facebook: Evidence from the 2006 Midterm Elections and 2008 Nomination Contest", Politics & Technology Review, vol. 11-21, 2008.

WILLIAMS, C. B. and G. J. GULATI (2008), "What is a Social Network Worth? Facebook and Vote Share in the 2008 Presidential Primaries", American Political Science Association: 24 pages, document available online: <http://blogsandwikis.bentley.edu/politechmedia/wp-content/uploads/2008/10/apr-sept-1.pdf>, website accessed on Friday, April 17th 2009 at 0h34 am.

WOO-YOUNG, C. (2005), "Online civic participation, and political empowerment: online media and public opinion formation in Korea", Media, Culture And Society **27**(6): 925-935.

WOODLY, D. (2008), “New competencies in democratic communication? Blogs, agenda setting and political participation”, Public Choice **134**(1): 109-123.

WRIGHT, K. B. (2005), “Researching Internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services”, Journal of Computer-Mediated Communication **10**(3), document available online: <http://jcmc.indiana.edu/vol10/issue3/wright.html>, website accessed on Tuesday, March 24th 2009 at 6h13 pm.

WYATT, S., F. HENWOOD *et al.* (2005), “The digital divide, health information and everyday life”, New Media & Society **7**(2): 199-218, document available online: <http://web.virtualknowledgestudio.nl/documents/nms-wyatt-et-al-final.pdf>, website accessed on Tuesday, April 14th 2009 at 4h29 pm.

XENOS, M. and K. FOOT (2007), “Not Your Father's Internet: The Generation Gap in Online Politics”, The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning: 51-70.

XENOS, M. and P. MOY (2007), “Direct and Differential Effects of the Internet on Political and Civic Engagement”, Journal of Communication **57**(4): 704-718.

XIE, L. (2007), “Nonjournalist Webloggers vs. Mainstream Media: Putting the Missing Puzzle Back to the Picture”, International Communication Association: 23 pages, document available online: http://www.allacademic.com/one/www/www/index.php?cmd=Download+Document&key=unpublished_manuscript&file_index=2&pop_up=true&no_click_key=true&attachment_style=attachment&PHPSESSID=ededa9fcd140b46129c378db951a21de, website accessed on Friday, September 19th 2008 at 8h15 pm.

YANG, J. H., Y. L. CHEN *et al.* (2007), “The identification of communities of practice in Web 2.0 through social networks”, Journal of Scientific and Technological Studies **41**(1): 1-15, document available online: [http://www2.nutn.edu.tw/randd/post/41-1/scientific/41\(1\)-3-1.pdf](http://www2.nutn.edu.tw/randd/post/41-1/scientific/41(1)-3-1.pdf), website accessed on Wednesday, April 15th 2009 at 12h35 pm.

ZITTEL, T. (2003), “Political representation in the networked society: the Americanisation of European systems of responsible party government?”, Journal of Legislative Studies **9**(3): 32-53.