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

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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.

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 States[2] 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 Szydlik, 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,

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[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).

74% of U.S. adults were online (Jones 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 (CEFRIO, 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 (CEFRIO, 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, 207: 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 technologies[3] which provide "attractive ways" to do so (Xenos and Foot, 2008: 52; Ester and Vinken, 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 Vinken, 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*

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[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).

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, 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

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[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).

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 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

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

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).

This paper primarily focuses on political blogs[6] 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 resources[7] (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 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

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[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.

channels and can sometimes directly question as well as influence their political news coverage (Jones, 2004: 65; Kiousis, 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 scandals or controversies[8] (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,

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[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".

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 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; Hunsigner, 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].

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[9] This period can be defined as an "eloquent euphoria"[9] (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).

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

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 blogspace[11]. 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

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[11] This assessment contradicts Efron (2004) who believes that "finding blogs about politics is easy".

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" (Sweeser 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" (Janknowski 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 of blogs' political nature[12]. 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

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

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 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" bloggers[15], 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 studied[16]. 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"

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[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)

[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 led 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; Woodly, 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).

(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 mention, 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.

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 Paollilo, 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

questionnaire[17]. It should be noted that this mediatisation 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 "possibily distorted" political attitudes and behaviours among "netizens" (Wright and Street, 2007: 852; Iyengar, Hahn *et al*., 2008: 186; Graf and Aday, 2008: 88; Bimber, 2005: 6; Tewksbury, 2008: 3; Gaines, Mondak *et al*., 2008l Veenstra, Sayre *et al*., 2008). While the viral dissemination of survey invitations favoured a wider circulation within the political blogosphere, theses 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

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

[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).

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 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.

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