

The Emergent ICT Culture of Parliamentarians: The Case of the Scottish Parliament

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Abstract.

This article explores the ways in which information and communications technologies (ICTs) have become embedded within the activities of parliamentarians, by examining the experiences of Members of the Scottish Parliament (MSPs). The article presents an overview of existing research in this area and suggests that many authors do not take into account the full range of functions and activities undertaken by a modern parliamentarian and consequently cannot fully perceive the extent to which these technologies support parliamentary life. Central to the article is a discussion of new unique longitudinal research data which provides empirical evidence of a significant technological orientation, and an emergent ICT culture, that is the outcome of the intertwined relationship between the adoption and use of new communications technologies by parliamentarians, and the established norms and procedures of parliamentary activity. The research findings presented here highlight the significant role played by new ICTs in the Scottish Parliament and the emerging new democratic system in Scotland. For the new Scottish Parliamentarians interacting with ICT is an important part of their daily life, to the extent that it would not be unreasonable to assert that use of these technologies has become a core parliamentary activity, possibly even to the extent that parliamentarians, and consequently the parliamentary system, have become *reliant* on the informational and communications capabilities embedded in ICTs. This is because these technologies are supporting a wide range of parliamentary roles and activities, and because they are underpinning a range of communicative relationships in the parliamentary arena and wider polity.

1. Introduction

Web-based technologies have been seen to offer new capabilities through which traditional representative arrangements can be reinvigorated and renewed. This article explores the ways in which information and communications technologies (ICTs) have become embedded within the activities of parliamentarians, by

examining the experiences of Members of the Scottish Parliament (MSPs). At the heart of the article is a discussion of new research data which provides empirical evidence of a significant technological orientation, and an emergent ICT culture that is the outcome of the intertwined relationship between the adoption and use of new communications technologies by parliamentarians, and the established procedures of parliamentary activity.

There is an established body of academic work which through scrutinising the functions and characteristics of websites analyses the significance of the web for parliamentarians and parliaments. This article avoids the limitations of methodologies based upon website analysis of in favour of a grounded approach, focusing on actual uptake and use of a wide range of communications technologies by MSPs, as reported in survey findings. Utilising longitudinal empirical data, this article sets out to establish how new communications technologies have been *used* by MSPs. It explores the extent to which they regard ICTs as having utility for a wide range of their functions as parliamentarians, party actors and representatives, and demonstrates the extent to which new technologies underpin key communications relationships with other actors in the polity. In so doing, it seeks to illustrate that ICTs, rather than having a deterministic 'impact' on practice, have been utilised in specific ways reflecting both established parliamentary practice and an appreciation of the distinctive capabilities that they offer. As such, it is evident that there is an emergent ICT culture which is expressed in the working lives and activities of Scottish parliamentarians. Data on uptake and use is further contextualised through an exploration of MSPs' attitudes towards the democratic potential of ICTs, providing

further evidence of the emerging technological orientation amongst Scottish parliamentarians.

The core research questions addressed by the article are:

- How are parliamentarians using ICTs to support their parliamentary activities?
- How useful do parliamentarians perceive ICTs to be in undertaking their parliamentary activities?
- Are levels of use and perceived usefulness changing over time?
- Is the use of ICTs supporting or challenging established parliamentary functions and activities?

The remainder of the article is split into six main sections. The next section (section 2) presents a review of published work on parliamentary representatives in the information age and highlights the lack of published research in this area. This is followed (section 3) by a theoretical exploration of the roles and activities of parliamentarians which is intended to serve as a contextual framework for exploring and understanding their use of these technologies. Section 4 introduces the case study and sets out the research methodology that guided the empirical contribution to this article. Following this, the next section (section 5) presents the research findings and considers the analytical framework previously brought forward. The final section (section 6) offers a concluding discussion.

2. Parliaments and Representatives in the Information Age

There is a burgeoning literature exploring the interrelationships between developments in new ICTs and democratic practice [see for example; 4, 19, 22, 43

and 45]. Much of this focuses on changes around democratic systems arising from the application of ICTs and their interaction with existing democratic institutions. Novel terminology has been utilised in an attempt to capture the profound significance of these changes, including terms like; 'e-democracy', 'teledemocracy', 'cyberdemocracy' and 'digital democracy' (etc). It is now generally recognised that the institutions of national parliaments, legislatures and assemblies must be given central focus in debates about the changing nature of democracy in the information age. Typically, these institutions are at the heart of a nation's political and democratic system and consequently play an important role in mediating the impact of new technologies. Despite this, there has been limited published research explicitly addressing how new ICTs may be altering the practices and procedures of parliaments, and the activities of parliamentary representatives. One early exception was the work published by Coleman *et al* [10] which in general posits that new technologies have tended to be introduced into parliamentary settings in ways that reinforce traditional parliamentary procedures and practices - referred to as 'wiring up the deck chairs'.

More recent studies into representatives' uptake of the capabilities offered by ICTs have broadly sought to consider how new technologies could affect their role in the broader democratic system [9, 21], or how technological developments within parliaments are altering parliamentary practice, for example through the introduction of e-voting or e-participation. However, it remains the case that comparatively little work has been published on the uptake and use of ICTs by parliamentarians, or on their experiences of, and attitudes towards, the use of new technologies for undertaking their parliamentary duties. Ward *et al* [47] comment that only limited

evidence has been gathered on how parliamentarians use new technologies, and the consequences of that use for their role. To date, published research has tended to focus on specific ICT applications, and in particular, parliamentarians' use of websites and web-logs (or blogs). Relatively little has been published on their response to communications technologies more generally, or how these technologies are perceived and used. The research presented in this article is intended to help fill this gap. To do this, it focuses on the parliamentarian as a 'user' of technologies, and so can be characterised as 'user-specific'. This is in contrast to 'application-specific' approaches which are typically focussed on the role of a particular technology and the normative broad gauge commentary that dominates this subject area.

2.1 Parliamentarians on the web

The 'application-specific' approach is manifest in a number of published studies which rely upon the content analysis of websites established and used by parliamentarians. Website analysis offers a number of advantages to researchers, including; accessibility of data, the opportunity to develop a standard analytical tool and apply it to a variety of different examples, and the comparative ease of analysis of data captured using such tools. However, website analysis can also limit the scope of investigation; it places greater emphasis than may be warranted on a single ICT application, it essentially identifies what has been *provided* rather than what is actually *used*, and it cannot determine the motivations or benefits associated with that provision. Moreover, since websites are by their very nature a 'public facing' ICT application, studies utilising website analysis can over-emphasise the part played by ICTs in developing the representative role of a parliamentary

representative, and neglect how ICTs relate to the performance of other roles supported by different and less visible technologies. It is certainly the case that the representative function has received greatest attention in the literature, with studies seeking to determine the scope for ICTs to renew the relationship between parliamentary representatives and the wider public or their own constituents. Innovative uses of technology by representatives has typically been understood as a response to the phenomena of public dissatisfaction with, and disengagement from, the traditional institutions of parliamentary democracy with technology being seen as providing new opportunities for reinvigorating participation and the representative function [12].

Ward and Lusoli [46], examine the growth and function of UK MPs' websites, and seek to assess how this may be linked to wider changes in MPs' relationships with their constituents, their party, and parliament as a whole. Their study identified the number of MPs that had established a web presence, the nature of MPs' online activity (in terms of information provided and activities supported by their websites), and the factors that determine whether and how they use these sites. The methodological approach utilises content analysis of websites using a coding frame originally developed by Gibson and Ward [17]. Explanatory factors were investigated using demographic/political data on MPs, election results and internet penetration data at the constituency level. This study estimated that around 70% of MPs in the UK Parliament would soon have a web presence, a percentage that had expanded considerably since a previous census carried out by Jackson [23]. Analysis showed that the main focus for these websites was the MP's constituency, underpinning their role as representative of a discrete geographical area and of

those who live within it. In contrast, MPs' party and parliamentary/policy roles were not supported by their websites to the same extent. A further notable finding was that only a minority of these sites were designed to support active communication, the majority instead supporting simple information provision. This formed the basis for the conclusion that MPs' personal websites represented a 'modernisation' of existing practices, for example by providing email as a substitute for paper-based communication, rather than a 'reinvigoration' through utilising web-based technology in innovative ways to bring about novel and interactive communications with constituents. Personal, constituency and party factors were all found to play a role in determining MPs' decision to go online. This conclusion differed from that of Jackson [23], who argued that party and constituency factors are of little significance compared to personal factors in the decision to create a web presence.

Ward *et al* [47] carried out a similar analysis of the use of personal websites by Australian Members of Parliament (MPs), positing that this could be related to changes in their performance of three roles; as representatives of the electorate, as representatives of a political party, and as national legislators. The role of an electorate representative anticipates MPs carrying out a range of activities around advancing the interests of individual constituents and the wider geographical area that they represent. The role of party representative envisages MPs acting as members of a political party, engaging in party activities including campaigning, and being part of a defined party communications structure. The legislative role of MPs focuses on their ability to develop expertise in particular areas and to contribute to policy formulation in those areas. Again they argue that the uptake of capabilities offered by ICTs in each of these three areas will be affected by an interplay between

a number of different factors, some of which operate at the *micro* level and are personal to the individual MP, some operate at the *meso* level and are related to the organisational/institutional context within which the MP is situated, while others operate at the *macro* level and relate to the characteristics of the overall political system [47]. Their findings reflected the outcome of the analysis of UK MPs' websites - parliamentarians had established a significant and growing web presence, and the content of websites was largely focussed on relations with constituents. However, websites overall were characterised by homogenous content with low variability, and an emphasis on information provision ('modernisation') over interactivity and novel patterns of communication ('reinvigoration').

2.2 Parliamentarians and their blogs

The 'application-specific' approach has also been utilised in studies into the use of web-logs (Blogs) by parliamentary representatives. Blogs are a particular type of web-based application that provide a ready-made website structure. This structure can be adapted by the user and populated with different types of media content (for example; text, images, and/or video) or links to content on websites belonging to others, through a content management system. Blogs lower the 'barriers to entry' for those wanting to establish an online presence, and automatically support far greater interactivity than normal websites typically allow. The use of blogs by parliamentary representatives has been analysed in a number of studies including work by Coleman [8], Williams *et al* [49], Ferguson and Griffiths [14] and Francoli and Ward [16].

Francoli and Ward [16] note that investigations into the use of blogs have tended to draw upon three themes; democratic and representative theory [14], election campaign perspectives [49], and the changing role of representatives in modern liberal democracies [16]. However, such studies have largely been concerned with the extent to which blogging may represent the emergence of the 'political entrepreneur'. This phrase suggests an elected politician who is able to change the terms of their relationships with the public, the media and their party. Blogs, therefore, have been seen as a powerful tool through which a representative can potentially dis-intermediate the traditional media and re-frame communications with the public on a continuous, transparent and interactive basis, and also adopt and elaborate political positions distinct from their party and build networks of influence that may supersede it. Empirical research provides little evidence in support of the 'political entrepreneur' thesis. Both Coleman's [8] and Francoli and Ward's [16] studies suggest that blogging is a minority interest amongst parliamentarians in the UK. Further, both studies have demonstrated that, for the majority of adopters, blogging represents an extension of their conventional offline communications strategies rather than an innovative break from established practice.

2.3 A broader perspective of the use of new technologies by parliamentarians

A smaller number of studies have adopted a 'user-specific' approach that considers parliamentarians' overall use of, and attitudes towards, new ICTs, and assesses the intertwined development of parliaments and new technologies. A Hansard study [18] published in 2002 reports on the use of ICTs in the Westminster Parliament and the newly devolved assemblies, including the Scottish Parliament. It identifies a rapid increase in the use of ICTs by parliamentary representatives and suggests that the

uptake in use of these technologies is to enhance parliamentary democracy and increase accountability and openness, in other words reinforce the legitimacy of the new parliamentary institutions and the role of representatives in the new democratic arrangements [43]. The work reported in a special edition of the journal 'Information Polity' [21] also takes a wide view of representative's use of ICTs and is concerned with the range of roles and activities fulfilled by parliamentarians and how these are supported by technologies. Survey research of parliamentary representatives in seven European Parliaments (Austria, Denmark, Germany, the Netherlands, Norway, Portugal, and Scotland) sought to identify the extent to which their core relationships and activities were supported by ICTs, and assessed this level of use in the context of data on their opinion of the democratic potential of new technology. Notable findings included the high degree of use of ICTs to support 'internal' communications relationships, between representatives and party and parliamentary staff, which in many cases exceeded the use of ICTs to support 'external' communications with voters and lobbyists [6, 15]. Looking more closely at external communication, it was noted that representatives favoured traditional media for political communication, and that Internet campaigning strategies were largely designed and organised by the party rather than the individual representative [6]. These and other findings show the extent to which survey methods bring a qualitative insight to parliamentary representatives' use of technology which could not be gained through content analysis alone.

Coleman and Nathanson [9] also adopt a user focus to posit that ICTs impact on the core representative, party actor and legislative roles of the parliamentarian in different ways. They argue that the representative role could be supported by using

ICTs to create democratic connections with the public, the party role could be supported by using ICTs as a communications and marketing tool, and the legislator role could be supported by using ICT to improve their legislating performance [9]. Table 1 outlines these three 'core roles' and the purpose to which ICTs could be put in support of each. They argue that much of the existing literature on parliamentarians and the internet has either failed to distinguish between these roles and purposes, or else only examines certain roles and particular purposes. From a programme of interviews with technology-friendly 'early adopter' parliamentarians, Coleman and Nathanson conclude that parliamentarians benefit in a number of ways, but that there are also some emergent risks and problems associated with the use of new ICTs [9]. The latter are also summarised in Table 1.

Insert Table 1 here

The study suggests that the main area of benefit is for their role as legislators, where ICT has made it easier to carry out research and collect evidence, although it is noted that there are worries around the quality, both of the data and the policy that arises from such data. ICT has also made it easier for the public to be consulted on legislation. However, there are concerns as to the extent to which online consultations are utilised by a wide range of people. The parliamentarian as party actor benefits from stronger organisational linkages with the party, underpinned by better lines of communication. In terms of campaigning, it was noted that while interactive technologies can support proper interaction, these were largely used to capture data to be used in campaign planning. In terms of their representative role, parliamentary representatives benefit from new connections with their constituents

and the wider public, however there are significant concerns as to the extent to which this raises expectations on the part of the public, and on representatives' ability to deal with information overload [9].

Approaches that adopt a user-specific focus offer an important advantage over application-specific research in that they emphasize the multiple interrelated roles fulfilled by parliamentarians, and the complex web of communications that surrounds and supports their activities. To take this analysis further it is useful to consider in more detail the actual roles, functions and activities of a parliamentary representative – as this allows us to subsequently consider how their use of new ICTs may be embedded in the established procedures of parliamentary life. The next part of the article attempts to do just this, by setting out what are commonly perceived to be the key functions of parliament, and the core activities of a parliamentarian.

3. Parliament and the Role of Elected Parliamentary Representatives

Parliament occupies a key position in the machinery of government. Sometimes referred to as 'assemblies' or legislatures', they are typically composed of lay politicians – parliamentarians - who represent the citizenry and who are not expert government officials. Typically, they act as national debating chambers or public forums in which government policies and major issues of the day can be openly discussed and analysed, and are invested with some formal law making powers, giving them some capacity to shape, or at least influence public policy [1, 25, 29, 41]. Across nations the institutional arrangements for parliaments differ and have different constitutional configurations to fulfil the roles of the executive, the judiciary and the legislature [29]. Consequently, depending on the parliamentary system

being examined the formal role of a parliamentary representative differs. They may be elected representatives, legislators, party members, policy-makers, and/or part of the governing elite [39]. The balance between these roles will largely be determined by the democratic and parliamentary system being examined, the individual representative, and the historical development of parliamentary institutions. Consequently, the role of a representative in one parliament will not necessarily be the same as those in another.

For the purpose of this research the parliamentary system being examined is what is commonly referred to as the 'parliamentary system of government', as found in Westminster style systems based on the model of the UK Parliament, with specific reference to parliamentary representatives that are elected, and in particular MSPs. A parliamentary system of government is one in which the government governs *in* and *through* parliament with the executive being drawn from, and accountable to, parliament, thereby fusing the executive and legislative branches of government [20]. Table 2 sets out the key features of a parliamentary system of government and highlights the intertwined complex relations between government and parliament. In this system, parliament operates as an 'arena legislative' [38] or 'policy-influencing legislature' [24, 33] which provides a formal platform for political actors to express themselves, without necessarily transforming legislation or government policy. Parliament itself does not and cannot govern, and it cannot control the executive, even though the members of the executive are drawn from the elected membership of parliament.

Insert Table 2 here

Within this system of governance parliament is a multifunctional body that fulfils a number of interrelated roles. Norton [34] suggests that these roles include 'formal' and 'real' functions and are identified and described differently by those who seek to delineate them. In addition to the defining task of legislating, the key roles of a parliament can include; providing the personnel of government, of legitimation, of debate, of expression, of representing interests and of scrutinising and influencing the executive [20, 24, 28, 29, 30]. This list is not exhaustive, and the roles are not mutually exclusive. Furthermore, certain tasks may be undertaken by parliament as a body whereas others are performed by individual representatives or groups of representatives.

A number of commentators have sought to draw up a classification of parliamentary functions, including; Pakenham [37], Bagehot [2], and Beer [3]. In 'The Commons in Perspective' Philip Norton [34] identifies six functions of Parliament for which there is 'some measure of agreement' and which incorporates the historical activities of parliament, its formal functions and the 'reality' of parliamentary processes in a parliamentary system dominated by political parties. He suggests the principle functions of parliament are: (1) providing the personnel of government, (2) representation, (3) sustaining and providing a forum of debate for the government and opposition parties (4) legitimising the government and its measures, (5) scrutinising and influencing the measures and actions of the government, and (6) fulfilling a number of minor though not necessarily unimportant functions, including a quasi-judicial one. Moran [28] offers a slightly different classification, though essential the elements are very similar, he suggests the functions of parliament are;

(1) supplying and supporting government, (2) fighting the partisan battle, (3) scrutinising legislation, (4) scrutinising the executive, (5) representing interests, and (6) protecting individual constituents. Following on from such classifications a simplistic 'text-book' approach to comprehending the role of a parliamentarian can be derived from the core functions of parliament and would suggest that parliamentarians undertake a range of formal activities. These can be grouped around three core overarching functions, or purposes, namely; the 'legislative' function, the 'oversight' function, and the 'representative' function. Importantly, within each of these functions it is possible to identify a range of activities (or roles) commonly undertaken by parliamentarians as they go about their day-to-day activities. Table 3 presents a summary of the core functions and activities of parliamentarians. All are considered in more detail below, and it is this framework that is used later, in section 5, to discuss the empirical research findings.

Insert Table 3 here

3.1 The legislative function

The legislative function incorporates a number of roles essential to the running of parliament as a legislature. These include; the act of legislating, the provision of legitimisation for those responsible for legislation and the provision of personnel for the legislative process.

Legislating is often perceived to be the defining feature of parliament and the primary function of a parliamentary representative. They are usually vested with law-making powers whereby the laws produced by parliament are authoritative and binding. The

process of legislating involves a range of key activities for the parliamentarian, including participation in debates, committees, votes and readings, and gives ample scope for parliamentarians to examine and discuss the purpose of legislation and its working detail [the various stages of the legislative process can be found in numerous politics and government text books, including; 20, 24, 26, 28, 29, 30 and 41]. Although ultimately the government, through its parliamentary majority, controls the legislative programme, and can usually secure the passage of a piece of legislation, existing parliamentary procedures ensure that it is open to debate, scrutiny and the influence of individual elected representatives.

A key role of a parliamentarian in the legislative process is providing legitimisation, both for individual pieces of legislation and the legislative process more generally. Packenham [36] argues that Parliament provides 'latent legitimisation', because its regular meetings, and by being seen to openly question and debate government policy, serves to legitimise the existence of government and government policy. Here the activities of parliament are closely associated with the activities of the executive, as the executive requires the formal assent of parliament both for the passage of legislation and the appropriation of money. Under the legislative function parliament also provides the personnel for government, and parliamentarians introduce, debate, discuss and approve individual pieces of legislation. Typically, they do this as party members and either part of the governing majority proposing and introducing legislation or as backbenchers who discuss and scrutinise legislation.

3.2 The oversight function

Under the oversight function parliamentarians oversee the activities and actions of government. Ministers and civil servants spent most of their time pursuing and administering policies and programmes for which legislative authority has already been given or for which authority is not necessary and the formal approval of parliament is not required. Nonetheless parliamentarians subject such activity to scrutiny and try to influence government policy. Under this function the key role of parliament is to extract information from government personnel in order to deliver responsible and accountable government. Various institutional mechanisms and devices are utilised for this purpose, principally; parliamentary questions (both written and oral), debates, select committees, early day motions, and beyond formal parliamentary procedures, correspondence and party meetings.

The most powerful oversight activity available to a parliamentarian is participation in a parliamentary committee. In a Westminster style system committees undertake detailed consideration of legislative matters and financial proposals, they scrutinise government administration, oversee the exercise of executive authority, and complete ad hoc investigations into matters of public concern. These committees are powerful investigative instruments and have the authority to summon oral and written evidence, both from members of the government and beyond. Through these committees parliamentarians are able to scrutinise, investigate, and examine in minute detail public policy and the conduct of government.

Parliamentary debate forms a central mechanism for scrutinising and attempting to influence government with the ability to participate in such debates a key

parliamentary skill. Various types of debate are held in (the UK) parliament, including 'general' 'emergency', 'adjournment' and 'legislative' debates, all of which offer opportunities to raise issues and scrutinise the activities of government [41]. Moreover, through long standing parliamentary convention Ministers are expected to appear regularly before elected representatives to answer questions about their activities and government policy for which they are responsible [13, 41].

3.3 The representative function

Parliament plays an important role in providing a link between government and the people. In the Westminster style parliamentary systems representatives are portrayed as trustees whose prime responsibility is to exercise their own judgement and wisdom on behalf of their constituents. Parliament therefore provides an important authoritative arena in which different and often conflicting views in society can be given expression, what Jones *et al* [24] refer to as 'the expressive function'. In many liberal democracies this expression is structured through political parties. The representative function involves representing several interests, often simultaneously, and depending on the individual parliamentarian they can include; individual constituents, the constituency as a body, local groups and businesses, trade unions, political parties, the government, the national interest and their own personal interests. These varied interests may diverge or conflict with one another [27].

Norton argues [30, 31] that for UK constituency-based elected representatives undertaking constituency matters is perceived to be one of the most important undertakings of a parliamentarian [35]. Parliamentary representatives can pursue

constituency matters through a variety of means [11]. They may table a question in Parliament, or raise a matter in a debate. However, the most common means of pursuing constituency casework is through correspondence with Ministers, either to elicit information, or to convey grievances or the opinions of constituents.

Although elected representatives are elected by individuals in constituencies they are typically elected on a party political platform and undertake their parliamentary duties as members of a national and local political party. It can be argued that in a modern representative democracy the activity of parliamentarians is better understood through the role and influence of parties and party affiliation, rather than through the identification of formal parliamentary roles and functions [5]. Membership of a party helps to shape, albeit not exclusively, parliamentary behaviour, as it ensures that government, sustained through its parliamentary majority, dominates parliamentary procedures and the practicalities of parliamentary life. Parliamentarians sit, vote and participate in committees along party lines and the core legislative programme and 'parliamentary timetable' is introduced and determined by government. Partisan voting and decision-making is the overwhelming norm in parliamentary systems of government.

3.4 The nexus of parliamentary communications

Parliamentarians are at the nexus of a modern parliamentary system and as such are an important communication hub. All the parliamentary activities discussed above are supported by communicative relationships between parliamentarians and an array of actors, and as a result of these relationships parliamentarians process large quantities of information. These communications may take the form of

correspondence, but would also include telephone conversations, meetings, speeches, interviews and presentations. At a formal level parliamentarians are the key communication channel between citizens and interest groups and government. This involves a communicative relationship with the citizen concerned, most often a constituent, and the relevant government minister and/or civil servant. At a political level they also form key communicative relations with their political party and their local constituency office. In terms of their day-to-day business parliamentarians will be regularly in contact with their private office, their constituency office, other members of parliament, and the parliamentary administration. Increasingly, the media has become an important communication channel and members of parliament regularly appear before the media to respond to questions or express their, or their parties views, on a given matter.

4. Case Study and Research Methodology: The Scottish Parliament and MSPs

The new Scottish Parliament, commonly referred to in Scotland as 'Holyrood', met for the first time in 1999. It is the national, unicameral legislature of Scotland and is a democratically elected body of 129 MSPs. MSPs are elected for a four-year term under the mixed member proportional representation system. To date, elections have resulted in minority government, Labour in 1999 and 2003, and the Scottish National Party in 2007. The Parliament is a devolved legislature within the UK and under the Scotland Act 1998 has 'devolved' powers and legislative competences, including tax varying powers. In essence the Parliament has the authority to make legislation in any area not 'reserved' by the sovereign UK Parliament at Westminster, including, for example, education, health and prisons, but not the UK constitution, defence, national security, foreign policy or macro fiscal policy. In line with the

features of a parliamentary system of government, as set out in section 3, the main functions of the Parliament are to provide legislation, oversight and representation. Although this suggests a traditional relationship between the Scottish Government (known as the Scottish Executive before 2007) and the Scottish Parliament, the inner workings of Parliament break from tradition in a number of ways. As one of the newest Parliaments in Western Europe a conscious decision was made to break with tradition and to design a parliament and parliamentary procedures that were innovative, modern and based on perceived best practice. Notable developments include the formation of a committee system with committees that are more powerful and policy orientated than their Westminster counterparts and the close integration of new ICTs into Parliamentary business. From the outset, new ICTs were envisaged and anticipated to be part of the newly invigorated democratic environment in Scotland [42, 43]. These technologies were to bring about better ways of working within the Parliament and were to support new forms of electronic participation around it [40]. Here, the intention was to design a parliament fit for the information age and which took advantage of the informational benefits offered by the revolution in new communications technologies. This approach assumed that the new Scottish parliamentarians would be comfortable using these new technologies as they went about their daily parliamentary business. The research presented here seeks to capture and examine MSPs use of, and attitudes towards, these new communications technologies and the extent to which they are integral to their parliamentary activities, ultimately identifying the nature of the ICT culture in Parliament. Beyond our analysis of the Scottish case, this research also provides useful insights about relations between parliamentarians and technologies which could be utilised to inform parliamentary practice in any modern parliament. This

point is especially valid when you consider the Scottish parliament was designed in the information age for the information age and with ICTs central to its activities - no other Parliament can offer this degree of integration.

4.1 Research methodology

The empirical research presented in this article derives primarily from longitudinal survey research. The core data was collected from two postal questionnaires of MSPs undertaken in spring 2002, approximately three quarters of the way through the first Scottish Parliament, and repeated in spring/summer 2006, approximately three quarters of the way through the second Scottish Parliament¹. This represents a unique data set, not only because it captures the experiences of MPs from the first two new Scottish Parliaments, but also because it offers unique longitudinal data on MSPs' attitudes towards new technologies, and as such represents the only known longitudinal data of kind. To ensure the validity of the comparisons between the 2002 and 2006 data very similar questionnaires were used on both occasions, with identical sections but with minor changes to accommodate developments in technology and formal parliamentary procedure. To test validity, survey findings were discussed in a series of short semi-structured interviews with a selection of MSPs, Parliamentary Assistants and Officers.

¹ The 2002 survey of MSPs was initiated by the European Union supported COST Action (No.14) 'Government and Democracy in the Information Age' (GaDIA) research programme in the late 1990's. The GaDIA research adopted a common survey instrument to enable comparative analysis across parliaments and nations. Data relating specifically to the first survey can be found in the special edition of the journal *Information Polity* published in 2004 [21].

4.2 Constructing and administering the surveys

A postal survey of the population of 129 MSPs was conducted in 2002 and 2006. To encourage a high response, a short questionnaire was designed which could be completed by either the MSP or one of their assistants. This was distributed with a personally addressed cover letter. The survey was tested in a pilot sent to Parliamentary Assistants and a follow-up survey was administered approximately one month after the main survey.

To test the extent to which the survey responses were representative of the population, and as a tool to help describe and analyse the survey findings, five sample variables were constructed. These were; (1) gender, (2) age, (3) type, (4) party and (5) portfolio/office. The information required for constructing the sample variables was collected from MSPs' Parliamentary Homepages accessed via the Scottish Parliament's website². The sample variable 'type' relates to the method by which each MSP was elected, whether they were 'first past the post' constituency MSPs (73 MSPs), or regional 'top-up' list MSP (56 MSPs). 'Party' refers to the political party each MSP represents. The sample variable 'portfolio/office' relates to the main parliamentary duties undertaken by each MSP. The different categories of activities included those MSPs; who were Ministers, including Deputy Ministers, those who were a designated spokesperson in their party for a particular subject area, those who were backbenchers, and the Speaker, including Deputy Speakers, who undertook a non-political parliamentary role.

² Scottish Parliament website, URL: <http://www.scottish.parliament.uk/home.htm>

4.3 The responses

The 2002 survey of MSPs achieved a total response rate of 57.4% (74 responses), of which 54.3% (70 responses) were completed questionnaires. Of the completed questionnaires, 64.3% were completed by the MSP, 21.4% by the MSP with their parliamentary assistant, and 14.3% by the assistant alone. For the 2006 survey, a total response rate of 51.9% (67 responses) was achieved, of which 49.6% (64 responses) were completed questionnaires. Of the completed questionnaires, 64.2% were completed by the MSP, 14.9% by the MSP with their parliamentary assistant, and 13.4% by the assistant alone. In 2006, three completed responses were anonymous. Table 4 presents a breakdown of the responses by each of the sample variables used.

Insert Table 4 here

The table shows that the responses, for both surveys, were largely representative of the overall population with most of the sample variable categories well represented. However, for both surveys, certain categories were slightly over or under represented. For example, regional list MSPs were slightly over represented and constituency MSPs slightly under represented, Labour MSPs were slightly under represented whilst SNP MSPs slightly over represented, and Ministers and Deputy Ministers were under represented while spokespersons were slightly over represented. One explanation for these trends is that Ministers have been formally instructed not to respond to questionnaires, and in general most Ministers are representatives of the Labour Party and have been elected through constituency

seats. The main difference between the responses for the two surveys were that Ministers were better represented in 2002.

5. Research Findings

The research findings are presented here in five main sections; MSPs use of ICTs (section 5.1), email (section 5.2), and homepages (section 5.3), the utility of these ICT supported communications (section 5.4), and their views concerning the democratic potential of new communications technologies (section 5.5). Each of these sections corresponds with a section of the questionnaire used in the survey. Also, following the presentation of the data each section is discussed in more detail in relation to the framework of parliamentary functions and parliamentarians activities developed in section 3.

5.1 The 'shape of use' of ICTs by MSPs

The research aimed to establish the 'shape of use' of ICTs in order to establish the baseline characteristics of ICT usage. Here the researchers were interested in ICT hardware and applications and the extent of time spent online.

The first part of the survey concerned MSPs' hardware, and investigated what hardware they used, and to what extent they used it. The research data, presented in Figure 1, highlights the primacy of the desktop computer as the main piece of hardware used. In 2006, 95.3% of respondents reported 'frequent' use of a desktop computer, a significant (15.3%) increase on 2002. This increase appears to be at the expense of laptop computers, where 'frequent' use has declined from 55.7% in 2002, to 19.0% in 2006. This could be explained in part by the increasing use of

personal digital assistants (PDAs), with 57.8% reporting 'frequent' use of such devices in 2006. In the 2002 survey the term PDA was not in wide usage and respondents were asked about electronic personal organisers (EPO), in response to which 35.7% reported 'frequent' use. These devices had a lesser range of functionality than modern PDAs and were not generally capable of accessing email. It is possible that the wider functionality of PDAs with modern wireless networking abilities may, to some extent, be replacing the laptop computer as a device to support flexible working. The usage level of mobile phones is consistently high across the two surveys, with 91.4% reporting 'frequent' use in 2002 and 89.1% in 2006.

Insert Figure 1 here

Research findings suggest that email is strongly established in the ICT culture of parliamentarians with consistently high usage figures, even to the extent that email use could be considered a core part of parliamentary life. In 2006, 98.4% of respondents reported 'frequent' use of email, a slight increase on the figure of 94.3% reported in 2002. This is heavier use than of the Internet *per se*, which 65.6% of MSPs report using 'frequently' in 2006, a significant increase on the 47.1% who reported frequent use of the Internet in 2002. The figure for Internet use indicates that a strong characteristic of the emergent ICT culture is that MSPs do not appear to regard themselves as tied to, or dependent upon, proprietary ICT systems provided by the Scottish Parliament, exemplified by the 'Parliamentary Intranet'. This argument is supported by MSPs' use of search engines, which were frequently used by 62.5% of MSPs in 2006. In contrast, frequent use of the Parliamentary

Intranet has declined from 67.1% in 2002, to 43.5% in 2006. This suggests that MSPs appear to be happy to consult a wide range of Internet based information rather than restrict themselves to 'official' resources. Further evidence of innovation beyond the confines of official electronic resources is provided by MSPs' use of web pages. MSPs are supplied with template-based web pages on the Scottish Parliament website³, each of which provides limited biographical, political and constituency information and has a link to MSPs entry on Parliament's 'Register of Interests'. However, in addition to these parliamentary pages, 77.8% of respondents in 2006, and 67.1% in 2002, reported also using 'personal' web pages, hosted on either constituency, party or personal web space. Levels of use have also increased alongside increases in provision. In 2006, 21.7% of respondents reported that they used such pages 'frequently', compared to 2002 where the data showed that just 12.9% reported 'frequent' use. Figure 1 also presents data relevant to ICT applications 'frequently' used by parliamentarians for their parliamentary work.

The investigation also sought to establish the extent to which MSPs were online, both in terms of frequency (number of times online in a typical day) and duration (the total number of hours online per week). The results show extensive online activity. In 2006, the vast majority of MSPs (93.8%) were online at least once a day, a 15.8% increase on comparative data from 2002. Furthermore, in 2006, 81.3% of MSPs were online more than once a day, whilst a far smaller proportion (1.6%) were online every few days, and slightly more (4.7%) only online once a week or never. The data also shows that MSPs spend a significant amount of time online. Overall, in 2006, 75.4% were online for five hours or more per week, a 9.4% increase on figures

³ MSPs Homepages, URL: <http://www.scottish.parliament.uk/msp/membersPages/index.htm>

from 2002. This figure is dominated by those at the upper end of the scale - 27.9% of MSPs were online for more than twenty hours per week and 34.4% for ten to twenty hours. 13.1% reported being online for two to five hours, and only 11.5% were online less than two hours per week.

Although empirical data about ICT usage tells us little about the parliamentary roles and activities supported or undermined by new ICTs, it is significant in that it demonstrates unequivocally the extent to which ICTs are embedded in the daily activities of MSPs and consequently the extent to which parliamentary activity is closely integrated with these technologies. Clearly, using and interacting with new ICT is a key part of a parliamentarian's work and assumes a degree of technological competence.

5.2 Email as a core application

The previous section established that email represents a core application frequently used by MSPs in undertaking their parliamentary work. Further evidence of MSPs positive orientation towards email was that a significant majority, 87.3% in 2006, reported having email addresses other than their official parliamentary address. The investigation sought to establish the ways in which email is embedded in the ICT culture and functions of the parliament by investigating the amount of email received, how it was accessed, by whom, and by establishing how email relates to the various roles performed by parliamentarians.

Data from the 2002 and 2006 surveys show that MSPs received a large amount of email. In 2006, the average reported figure of 493 emails per week conceals a

variety of responses ranging from a minimum of 100 to a maximum of 2,000 emails per week. Bearing this diversity of responses in mind, the average of 493 still represents an increase of over 100 on the average figure of 389 per week reported in 2002. Figure 2 illustrates that most respondents in 2006 reported receiving between 250 and 749 emails per week. This points to MSPs and their correspondents having adopted email as a convenient and widely used mode of communication.

Insert Figure 2 here

There is also evidence to suggest that the ICT culture of the parliament encapsulates flexible working arrangements. A significant number of MSPs' checked their email from multiple locations, using a variety of communications devices. In 2006, and in addition to the 92.1% who 'frequently' checked their email from their parliamentary office, 46.0% 'frequently' did so from their local office and 50.8% from home. Flexible working also encompasses mobile working. In 2006, 58.7% reported that they 'frequently' accessed email via a PDA, and a small number stated that they accessed email from WiFi Laptops (11.5% in total) and mobile phones (8.0% in total).

With email embedded as a core ICT application, the issue of whether and in what ways it supports the different activities and roles of parliamentarians becomes apparent. Data on the range of topics that MSPs receive email about, and the range of people who send email to them, provides some evidence to illuminate this question. MSPs were asked about the frequently with which they received email to

their Parliamentary email account on a variety of topics. This data is presented in Figure 3.

Insert Figure 3 here

In 2006, 100% reported that they 'frequently' or 'moderately' received email about parliamentary business, 98.5% about constituency issues, 96.8% about current political issues and briefing materials, 93.6% about their special interests, 90.5% on issues promoted by lobbyists, and 83.3% about party business. Very few MSPs reported 'infrequently' receiving email on any of these topics. 90.5% of MSPs also reported that they 'frequently' or 'moderately' received unsolicited email (spam), and 33.9% abusive or offensive email. This pattern of email reception is broadly consistent with that reported in 2002. It is notable that the highest scores were for email received about parliamentary business, constituency issues, current political issues and briefing materials, topics that support legislative and representative activities in a number of ways. Issues promoted by lobbyists and party business did not feature so highly.

Along with examining the content of email received, it was of interest to investigate its source. In this case, the analysis focuses on those sources from which email was 'frequently' received, and is illustrated in Figure 4.

Insert Figure 4 here

In 2006, the main sources of email were; personal staff (88.9%), their local office (79.0%), constituents (71.4%), other MSPs (71.0%), parliamentary administrators (66.1%) and non-personal parliamentary staff (61.3%). Email was received less frequently from lobbyists (47.6%), external advisors/consultants (33.9%), other public agencies (28.6%), the media (26.6%) and their party headquarters (25%). Email was received least frequently from; party members (19.7%), civil servants (9.5%), and ministers (6.6%). One interesting finding is that constituents are counted amongst the most frequent email correspondents with MSPs. The other important email correspondents are internal to the Parliament, namely; other MSPs, parliamentary administrators, and non personal parliamentary staff. It would appear, then, that email has been adopted internally within the Parliament, and externally with constituents, as a convenient mode of communication.

As with the previous sections this data points to ICTs supporting a range of communicative relations within the parliamentary system and consequently *all* the core functions of parliament. Again this reinforces the ubiquitous nature of the diffusion of ICTs into parliamentary relationships, and the emergence of a parliamentary culture ingrained in the use of ICTs.

5.3 MSPs and websites

Data discussed in section 5.1 relating to the 'shape of use' of technologies by MSPs established that the majority of respondents utilised 'personal' websites located on either constituency, party or personal web space. This section of the survey investigated these personal web pages further, with the intention of exploring the extent to which MSPs were using them in innovate ways, and the degree to which

their use supported parliamentary work. In 2006, 77.8% of MSPs reported that they had personal, as opposed to formal parliamentary websites, with 32.8% of MSPs reportedly having such pages on their party websites, and 23.4% on a constituency site. The majority of respondents (51.6%) with personal pages indicated that these web pages had come about through their own initiative, whilst 31.3% reported that they had come about on the initiative of constituency office staff, and 26.6% on the initiative of their party. It was noted in section 2.1 that personal websites are essentially a public-facing ICT application and their content is usually understood in terms of how it supports their representative role. With this in mind, MSPs were asked about the presence of a number of possible website functions. These can be divided into; functions that support *information provision*, for example, 'podcasts', 'blogs', other downloadable materials, links to party websites, links to the Scottish Parliament website, and links to websites related to special interests, functions that support *visitor involvement*, for example, a visitor book, discussion fora, and online petitions, and functions that support *accountability*, for example, online diary access, and information about a MSPs voting history and registered interests. Figure 5 illustrates the website features of MSPs personal web pages from the 2006 survey.

Insert Figure 5 here

It shows that information provision is the main functionality supported by MSPs personal websites. Despite this, only a small percentage of respondents used recently developed techniques for disseminating information online, such as 'podcasts' (audio files designed to be downloaded to a portable player) which were reportedly used by 3.1% of respondents, and 'blogs', which were reportedly used by

4.7%. Many more (37.5%) utilised established online information dissemination methods by giving access to downloadable materials, such as posters, leaflets and speeches. The main technique for information provision is through linking to other websites. 50.0% of MSPs reported links to party websites, 62.5% had links to the Scottish Parliament Website, and 28.1% provided links to websites related to their special interests. It is also apparent from Figure 5 that the personal web pages of some MSPs incorporated innovative functions that supported the further involvement of online visitors. 9.4% provided a visitor book, 4.7% a discussion fora, and 18.8% an opportunity for visitors to register support, through for example, an online petition. Of interest here, is evidence of use within MSPs private websites of functions that support the accountability of the representative. For example, 20.3% of respondents published their diary online, 10.9% used their personal pages to highlight their voting history, and 25.0% provided information about their registered interests.

As websites are predominantly 'public-facing' applications it is perhaps not surprising that they are used to support activities associated with the representative function, such as, disseminating the views and contact details of representatives, and links to Party websites. However, it is also evident that these website also support the provision of information and electronic communication that has a bearing on their legislative and oversight functions. For example, websites that support visitor involvement through online petitions, and the like, can be used to inform the legislative process, while published voting records, parliamentary questions and debates, can support the oversight function by being seen to hold political representatives 'to account'. Equally, links to websites which provide information about MSPs special interests are closely related to their involvement in certain

debates and committees, again key activities under the legislative and oversight functions.

5.4 Utility and quality of ICT-based communication

Beyond the ICT hardware and applications used by MSPs the survey sought to establish MSPs' views on the usefulness of these technologies for specific parliamentary activities, and their perceptions of the quality of ICT-based communication. Data from the 2006 census, presented in Figure 6, suggests that MSPs found ICTs to be very useful for carrying out a range of activities central to their parliamentary work.

Insert Figure 6 here

The majority of MSPs reported that ICTs were either 'essential' or 'very useful' for 'accessing legislative documentation' (80.6% in total), 'participating in committees' (69.4% in total) and 'debates' (75.8% in total), 'asking/responding to parliamentary questions' (88.9% in total), and 'making policy statements' (73.7% in total), all tasks central to their legislative function. New ICTs were also very useful in supporting activities associated with the oversight function, including 'researching specific issues' (95.2% in total) 'participating in committees' (69.4% in total) and 'debates' (75.8% in total), and 'asking/responding to parliamentary questions' (88.9% in total). Activities relating to the representative function of parliamentarians were equally well supported by ICTs. 'Representing constituents' (88.9% in total), 'receiving constituents/lobbyists' (74.6% in total) and 'distributing political information' (84.1% in

total) were all activities perceived to be usefully supported by the use of new ICTs. These responses were broadly comparable with the 2002 data.

Research findings also suggest that ICTs (in general as opposed to email specifically) support the parliamentary activities of MSPs by underpinning a range of communication between themselves and other relevant parliamentary and political actors. The 2006 data is presented in Figure 7.

Insert Figure 7 here

MSPs notably used ICTs most frequently for communication with other actors in the Scottish Parliament, particularly with their personal staff (frequent ICT supported communications with 93.7% of MSPs), with non-personal parliamentary staff (frequent ICT supported communications with 74.5% of MSPs), and other MSPs (frequent ICT supported communications with 71.4% of MSPs). These responses were comparable with the 2002 data. The 2006 data also shows that MSPs used ICTs for communicating with other actors associated with their legislative and oversight activities. For example, ICTs were 'frequently' or 'moderately' used by a majority of MSPs for communicating with civil servants (49.2%), other MSPs (95.2%), Ministers, (50.8%), and the Parliamentary administration (88.8%). These technologies were also used 'frequently' or 'moderately' for communication with constituents (90.5%), lobbyists (65.1%), party headquarters (67.2%) and members (65.6%), and other public agencies (66.2%), all actors associated with MSPs representative activities.

Building on levels of usage discussed in the section 5.1 data about the ‘usefulness’ of ICTs and the communicative relations supported by ICTs, illustrates fully the extent to which ICTs have become a core part of parliamentary life. Here it is clear that ICTs are facilitating and mediating a range of activities and relationships which enable MSPs to undertake their duties and fulfil their legislative, oversight and representative functions. Furthermore, this data does not support the view that certain functions, namely the representative function, are supported more significantly than the others. Rather, new ICT mediated activities and communications are ubiquitous, they have infiltrated all aspects of parliamentary life and are closely intertwined with all parliamentary roles, activities and functions.

5.5 Attitudes towards communication technologies

The final section of the survey investigated MSPs views on the democratic potential of new communications technologies through a series of fourteen statements to which respondents were asked to indicate their level of agreement or disagreement. The results are presented in Table 5 as a series of Percentage Difference Indexes (PDI), calculated for each statement by adding the percentage of respondents who ‘strongly agree’ and ‘agree’ minus the percentage who ‘disagree’ or ‘strongly disagree’. The findings suggest that on the whole MSPs had a very positive opinion about the democratic potential offered by new communications technologies, both in 2002 and in 2006.

Insert Table 5 here

MSPs indicated extremely strong agreement to the statements 'communications technologies enhance democracy' (statement 1), 'communications technologies are particularly important for engaging young people in politics' (statement 4), 'communications technologies allow me to work more easily in a variety of locations' (statement 10) and 'communications technologies are essential to my work as a parliamentary representative' (statement 11). They also strongly agreed that 'communication technologies encourage wider participation by citizens' (statement 3) and that 'communication technologies allow for a broader range of issues to appear on the public agenda' (statement 6). However, MSPs also expressed concern about certain aspects of the use of new communications technologies. They agreed that 'communications technologies allow the dissemination of extremist and non-representative material' (statement 5) and that 'communication technologies extend the gap between the information rich and information poor' (statement 7). When presented with statements which implied that communications technologies were not enhancing democracy these were strongly rejected, reinforcing the view that that MSPs were very positive about the democratic opportunities offered by new communications technologies. For example, MSPs strongly disagreed with the statements 'communications technologies diminish the role of representative is the political process' (statement 8) and 'communications technologies are not altering political practice in the Scottish Parliament' (statement 9). This evidence suggests that MSPs are overwhelmingly optimistic about the opportunities offered by communications technologies for enhancing democratic and parliamentary practice, and for supporting their parliamentary work.

The overwhelming positive attitude of MSPs towards the potential of new communications technologies is reflected in both 2002 and 2006 census. However, the data suggests, that despite a high level of optimism, the 2006 levels have all slightly fallen since 2002. For example, the PDI's for statements 1, 2 and 5 have all fallen by about three points since 2002, whilst the PDI's for statements 3, 7 and 10 have all fallen by a larger margin. There are a couple of possible explanations for this trend. Firstly, it may be the case that through their experiences of using communications technologies since 2002, MSPs are finding them slightly less useful or advantageous than they previously thought, and this in turn has changed their overall attitude towards such technologies. Secondly, the overall optimism surrounding the creation of the Scottish Parliament may have artificially inflated MSPs attitudes towards all aspects of democracy in 2002, including technological developments supporting the new democratic arrangements in Scotland. Despite this trend it is apparent that MSPs are predisposed to accepting the perceived benefits offered by new communications technologies and have a significant ICT orientation.

6. Discussion: The Online Parliamentarian

The research findings presented in this article highlight the significant role played by new ICTs in the Scottish Parliament and the emerging new democratic system in Scotland. For the new Scottish Parliamentarians these technologies play a regular and important part of their daily life, to the extent that it would not be unreasonable to assert that use of these technologies has become a core parliamentary activity. It could even be argued that parliamentarians, and consequently the parliamentary system, have become *reliant* on the informational and communications capabilities

embedded in ICTs. This is because, as clearly shown in the research data presented here, these technologies are supporting a wide range of parliamentary roles and activities, and because they are underpinning a range of communicative relationships in the parliamentary arena and wider polity. This argument has important connotations for the contemporary parliamentary representative. If they are to undertake their parliamentary duties effectively and efficiently then they will need to possess increasing levels of technological competence. This suggests that with the ICT revolution the nature of being a parliamentarian has evolved, and that they could accurately be described today as, 'online parliamentarians'.

The point is further reinforced by the longitudinal nature of the empirical research findings, which highlight a number of important trends. For example, it is clear that the integration of ICTs into parliamentary life was established with the first Scottish Parliament in 1999 and has become more significant over time. This is demonstrated by the increase in use of ICTs over the period, including especially use of email, the internet and the ongoing high levels of utility derived from the use of ICTs. Other notable patterns emerging from the longitudinal nature of the data include changes in ICT use, for example, the migration from laptops to PDA's, desktops and mobile phones, and a slight fall in the overwhelming support for ICTs. The empirical data also suggests that ICT use has become more 'sophisticated' over time with MSPs more likely to use new innovations and to go beyond official parliamentary resources. For example, in the later survey a notable minority of MSPs have started using podcasts and blogs whilst a majority are more frequently using personal websites to aid different aspects of their parliamentary work. Additionally, the evidence shows that MSPs are increasingly using search engines

and the internet, in addition to formal online parliamentary materials, to support their parliamentary activities. This suggests that over time MSPs are becoming more 'ICT savvy' and have a better understanding of how these technologies can be used to support their work.

The research also highlights that new ICTs are embedded in a range of parliamentary activities and subsequently underpin a number of parliamentary functions. Unlike the majority of research published in this area, which tends to focus on the use of the Internet for the representative role of political representatives, this research clearly demonstrates the significance of these technologies for a multitude of activities and relationships. It is patently evident, for example, that new ICTs are essential to the inner workings of parliament and the day-to-day activities of a parliamentary representative. They support access to legislative documentation, support communications between MSPs and the parliamentary administration and are extensively used by a MSPs personal staff and local office. As such, they can be seen to support the legislative and oversight functions of a parliamentarian. The significance of ICTs for these functions however, should not be seen as detrimental to their representative activities. Our research findings clearly show that these technologies have become important communicative tools for supporting relationships between MSPs and constituents, lobby groups and political parties, and consequently are embedded in the representative function of a contemporary online parliamentarian.

Table 6 presents an overview of the ICT enhanced activities supporting the three core parliamentary functions. The table shows that ICTs are embedded in a range of

activities that enable parliamentarians to fulfil their parliamentary duties and which enable parliament to function efficiently.

Insert Table 6 here

The table also shows that there are two underlying core aspects of MSPs' use of ICTs which are supporting multiple activities and roles, namely, enhanced access to information (and documentation), and enhanced communications opportunities with others in the parliamentary system. Access to information may make it easier undertake research and collect evidence, for parliamentary procedures and timetables to be disseminated, and to provide information about MSPs' political views and activities. Opportunities for new and enhanced communication embedded in ICTs may provide direct contact with a greater number of constituents, with their political parties and local offices, the parliamentary administration, and other lobby groups. These two features, information and communication, are simultaneously central to all three parliamentary functions and consequently it is difficult to draw a definitive dividing line between an activity or process that supports one function as opposed to another. For example, evidence presented in this article has shown that MSPs use the Internet to gather information relevant to their parliamentary work. This information could be used to support the legislative process, to aid general committee work, to prepare a parliamentary question on behalf of a constituent, or to develop a policy position – so the gathering of information via the Internet could be used to support the legislative, oversight and representative functions of parliament. The degree to which these processes are leading to a more efficient or effective parliament is however open to debate.

Although the evolution of a parliamentarian's activities around new ICTs point to a radical transformation of parliamentary practice, this has not been accompanied by a radical transformation of the functions of parliament, and consequently parliamentarians. An initial reading of the evidence presented here suggests that core parliamentary functions are unchanged, yet at the same time the evidence also points to MSPs activities and relationships being significantly mediated and shaped by their use of new ICTs. This may seem to be contradictory, as on the one hand parliamentary practices determine how ICTs are used to support the functions of parliament, yet on the other, new ICTs are challenging existing ways of doing things by creating new flows of information and new opportunities to communicate electronically. Here the evidence suggests traditional parliamentary practice and the introduction and use of new ICTs in the parliamentary setting have developed and evolved in tandem. So, although the online parliamentarian uses new ICTs in previously unforeseen ways, these technologies in general are supporting the traditional foundations of a parliamentary system of governance and are used in ways that reflect established parliamentary practice. This final point however should not be over emphasised, as the adoption of these technologies into parliamentary and democratic settings is clearly both profound and subtle, and is illustrative of the emergence of a parliamentary culture dominated by the informational and communicational opportunities offered by the capabilities of new ICTs.

In addition to MSPs extensive use of new ICTs is also evident from the research presented here that they have an extremely positive cultural orientation towards the use and perceived impacts of these technologies. Thus, not only are ICTs ingrained

in the daily activities of a MSP, but MSPs are also extremely positive about the perceived impacts that their use has on parliamentary practice and the democratic system more generally. The general perception is that through the use of new ICTs the parliamentarian's role in the legislative, oversight and representative functions can be enhanced. In this respect, new ICTs have become a cultural norm of contemporary parliamentary life.

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Table1. Parliamentarians’ Roles and the Purpose and Outcome of ICT Use

Role of Parliamentarian	Legislator	Party Actor	Representative
ICT Purpose	Efficiency Using ICT to improve performance	Publicity Using ICT as a communications / marketing tools	Democracy Using ICT to establish democratic connections
ICT Outcomes	Efficiency <i>Policy Making:</i> Easier to do research and collect evidence <i>Consultations:</i> Scope for online consultations Worries about representativeness of submissions	Publicity <i>Organisational:</i> Better lines of communication with party organisation / leadership <i>Campaigning:</i> Interactive features are used to capture data rather than to engage interactively	Democracy <i>New Connections:</i> Direct contacts with wider range of constituents Raised public expectations Risk of overload

[Source: adapted from 9]

Table 2. Key Features of a Parliamentary System of Government

Feature	Description
Government Formation	Governments are formed as a result of parliamentary elections, based on the strength of party representation – there is no separately elected executive
Government Personnel	The personnel of government are drawn from the parliament, usually from the party with majority control
Government Responsibility	Government is responsible to the parliament in the sense that it relies on the parliament's confidence and can be removed if it loses that confidence
Government Accountability	Government has to justify its actions to parliament
Dissolution of Parliament	Government can dissolve parliament
Government Legislation	Most legislation is introduced by government and processed by parliament

[Source: adapted from 19]

Table 3. The Functions of Parliament and the Activities of Parliamentarians

Function	Activities
Legislative	Consider, scrutinise and approve proposed new legislation Participate in debates, readings, votes and committees Ask and respond to parliamentary questions (written and oral) Participate in government
Oversight	Scrutinise or defend government policy and proposals Seek to influence government and to hold government to account Participate in debates and committees Ask and respond to parliamentary questions (written and oral)
Representation	Express and represent views of constituents, local groups and political party Receive special interest and lobby groups Process correspondence with constituents and other groups Hold surgeries and attend functions in constituency Ask and respond to parliamentary questions (written and oral) on behalf of constituents, local groups and political parties Participate in party activities and party organisation

Table 4. Survey Responses by Sample Variable

Sample Variable	Population 2002 (n=129)	Responses 2002 (n=70)	Population 2006 (n=129)	Responses 2006 (n=61)
Gender				
Male	81 (62.8%)	42 (60.0%)	79 (61.2%)	39 (63.9%)
Female	48 (37.2%)	28 (40.0%)	50 (38.8%)	22 (36.1%)
Age				
Average	48.0 years	47.6 years	51.5 years	52.1 years
Type				
Regional MSPs	56 (43.4%)	34 (48.6%)	56 (43.4%)	35 (57.4%)
Constituency MSPs	73 (56.6%)	36 (51.4%)	73 (56.6%)	26 (42.6%)
Party				
Labour	55 (42.6%)	23 (32.9%)	50 (38.8%)	14 (23.0%)
Scottish National Party (SNP)	35 (27.1%)	22 (31.4%)	25 (19.4%)	17 (27.9%)
Liberal Democrats	17 (13.2%)	9 (12.9%)	17 (13.2%)	7 (11.5%)
Conservative	19 (17.7%)	13 (18.6%)	17 (13.2%)	10 (16.4%)
Green	1 (0.8%)	1 (1.4%)	7 (5.4%)	5 (8.2%)
Scottish Socialist Party (SSP)	1 (0.8%)	1 (1.4%)	6 (4.7%)	3 (4.9%)
Independent	1 (0.8%)	1 (1.4%)	5 (3.9%)	3 (4.9%)
Scottish Senior Citizens Unity Party	n/a	n/a	1 (0.8%)	1 (1.6%)
No Party Affiliation	n/a	n/a	1 (0.8%)	1 (1.6%)
Portfolio/Office				
(Deputy) Minister	20 (15.5%)	7 (10.0%)	19 (14.7%)	1 (1.6%)
Spokesperson	40 (31.0%)	28 (40.0%)	52 (40.3%)	32 (52.5%)
Backbencher	47 (36.4%)	22 (31.4%)	55 (42.6%)	26 (42.6%)
(Deputy) Speaker	n/a	n/a	3 (2.3%)	2 (3.3%)

Table 5. Percentage Difference Index for Statements Concerning the Democratic Potential of Communications Technologies

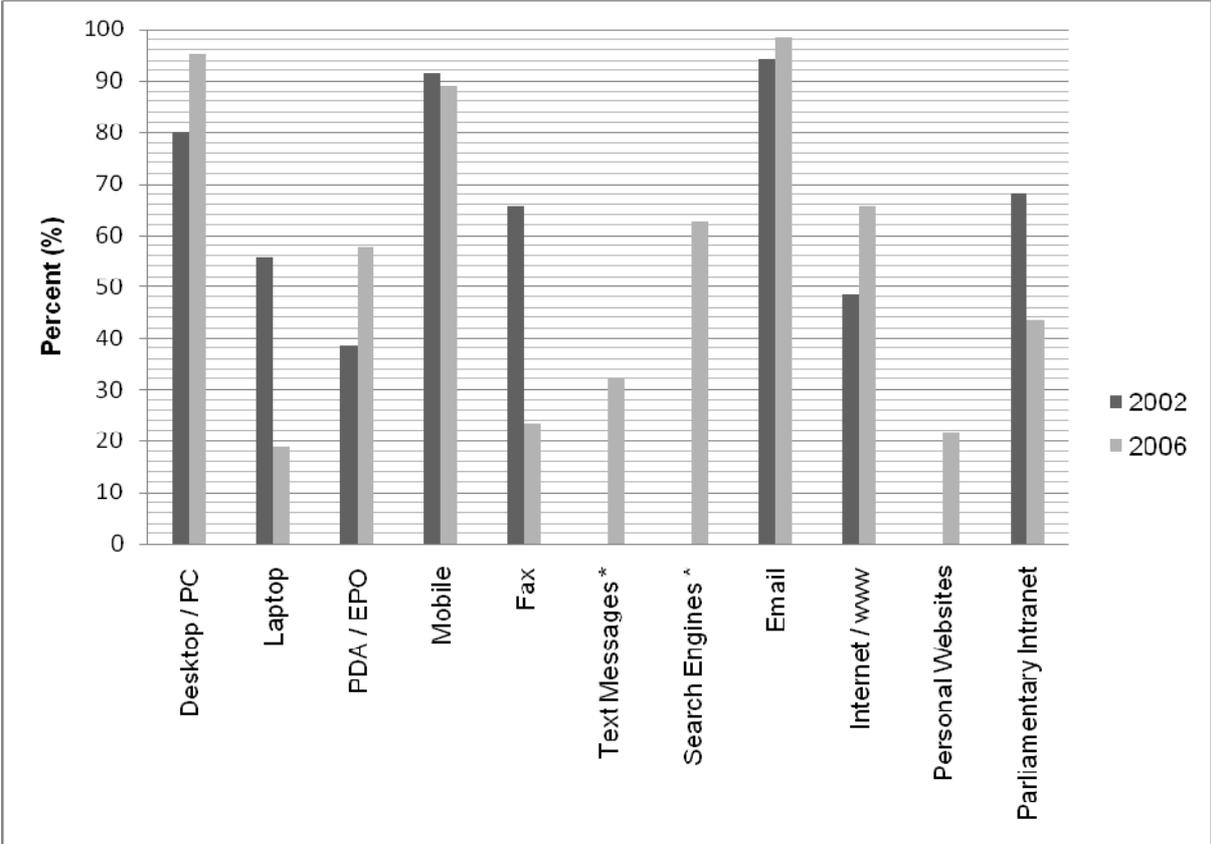
Statement	All MSPs	
	2002 (n=70)	2006 (n=64)
1. Communication technologies enhance democracy	+83.1	+80.9
2. Electronic voting will eventually become common practice	+60.9	+57.2
3. Communication technologies encourage wider political participation by citizens	+83.1	+69.9
4. Communication technologies are particularly important for engaging young people in politics	n/a	+85.5
5. Communication technologies allow the dissemination of extremist and non-representative material	+68.2	+63.4
6. Communication technologies allow a broader range of issues to appear on the public agenda	+73.0	+72.9
7. Communication technologies extend the gap between the information rich and information poor	+57.2	+51.6
8. Communication technologies diminish the role of representatives in the democratic process	-67.1	-68.2
9. Communication technologies are not altering political practice in the Scottish Parliament	-43.9	-43.6
10. Communication technologies allow me to work more easily in a variety of locations	+92.2	+85.6
11. Communication technologies are essential to my work as a parliamentary representative	n/a	+85.6
12. Communication technologies help generate ideas/motivation that I couldn't otherwise benefit from	n/a	+53.2
13. Communication technologies have overloaded me with information	n/a	+45.2
14. I was a proficient user of communication technologies before I became an MSP	n/a	+34.4

The percentage difference index is calculated by combining positive responses and subtracting the negative responses.

Table 6. The Functions of Parliament and the ICT Enhanced Activities of Parliamentarians

Function	ICT Enhanced Activities
Legislative	<p>Access to legislative and committee documentation</p> <p>Access to administrative documentation (debate timetables, etc)</p> <p>Access to non-parliamentary documentation (e.g. from the Internet)</p> <p>Communication with legislators, government and other parliamentary (internal and external) actors</p> <p>Provide information about legislative activities (e.g. Hansard)</p>
Oversight	<p>Access to government and committee documentation</p> <p>Access to administrative documentation (committee timetables, etc)</p> <p>Access to non-parliamentary documentation (e.g. from the Internet)</p> <p>Communication with government, constituents and other parliamentary (internal and external) actors</p> <p>Provide information about oversight activities</p>
Representation	<p>Access to party and local office documentation</p> <p>Communication with constituents, lobby groups, political parties and local office</p> <p>Provide information about representative activities</p>

Figure 1. ICT Hardware and Applications Used for Parliamentary Work (2002-6)



* directly comparable data not collected in both surveys

Figure 2. Email Received Per Week (2002-6)

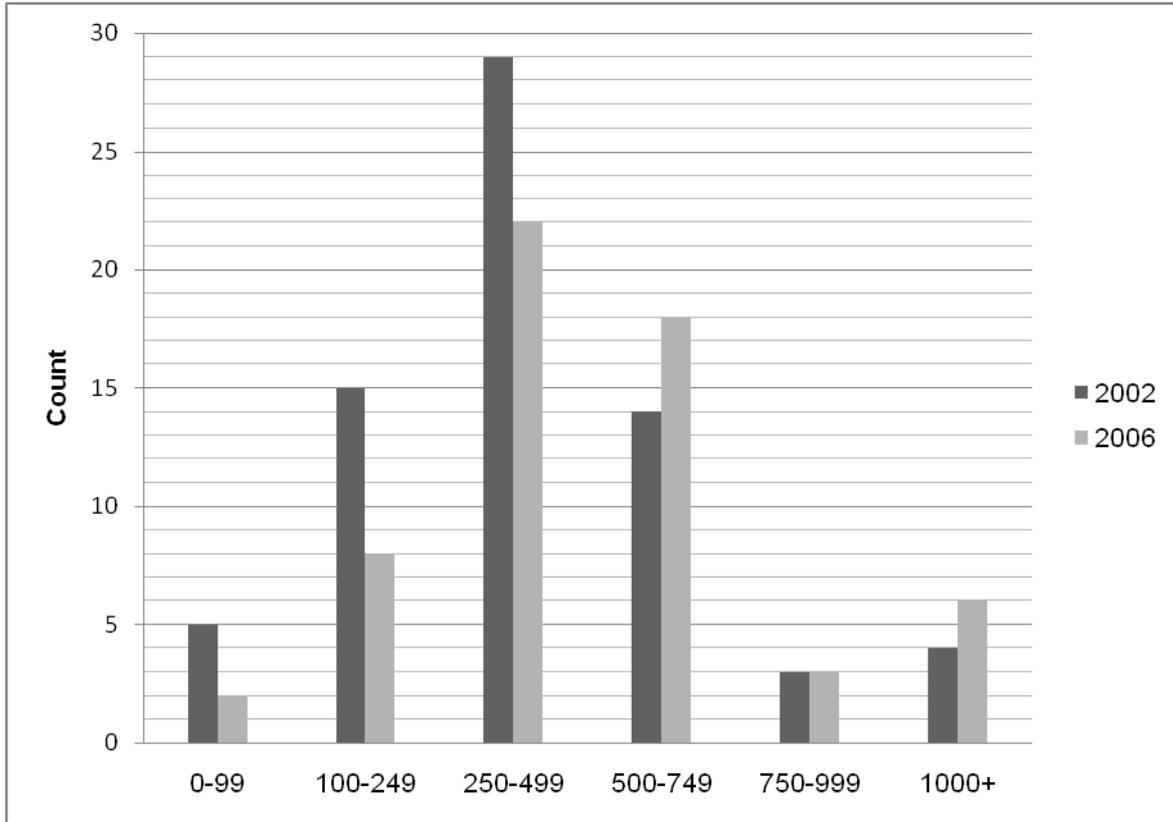


Figure 3. Content and Frequency of Email Received (2006)

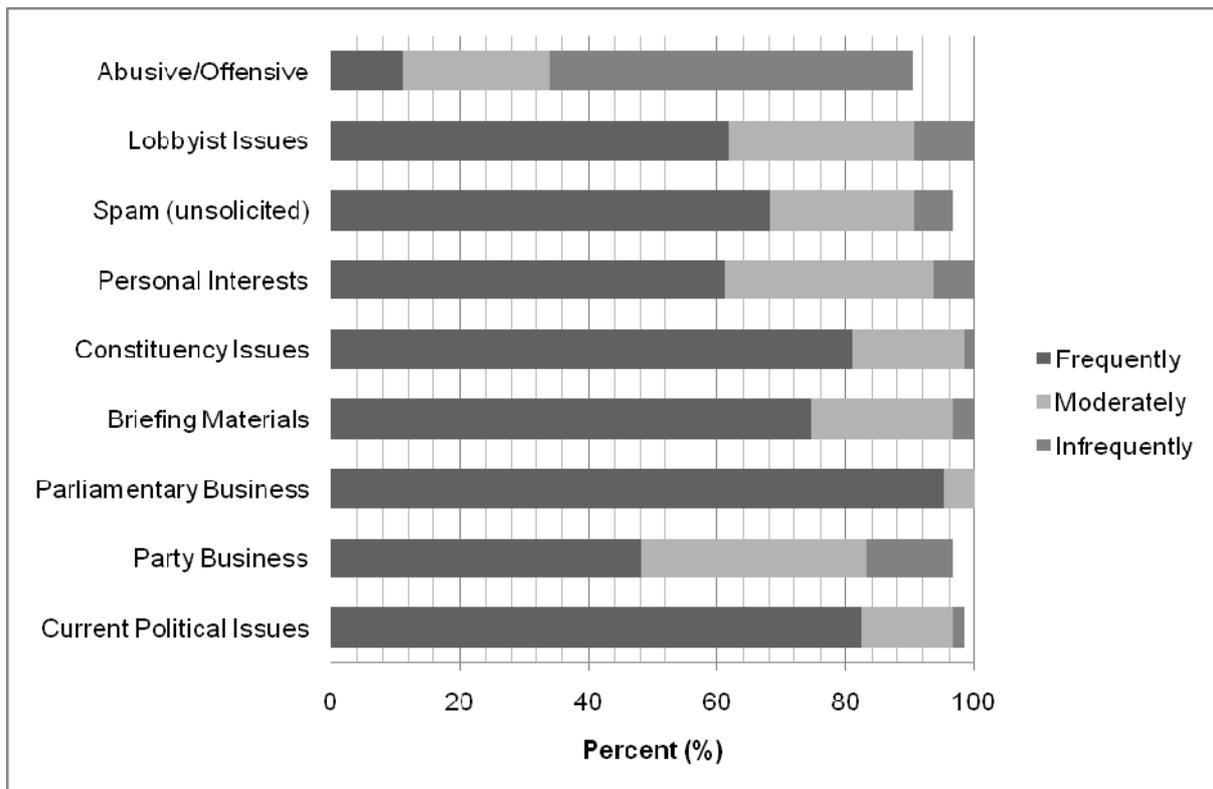
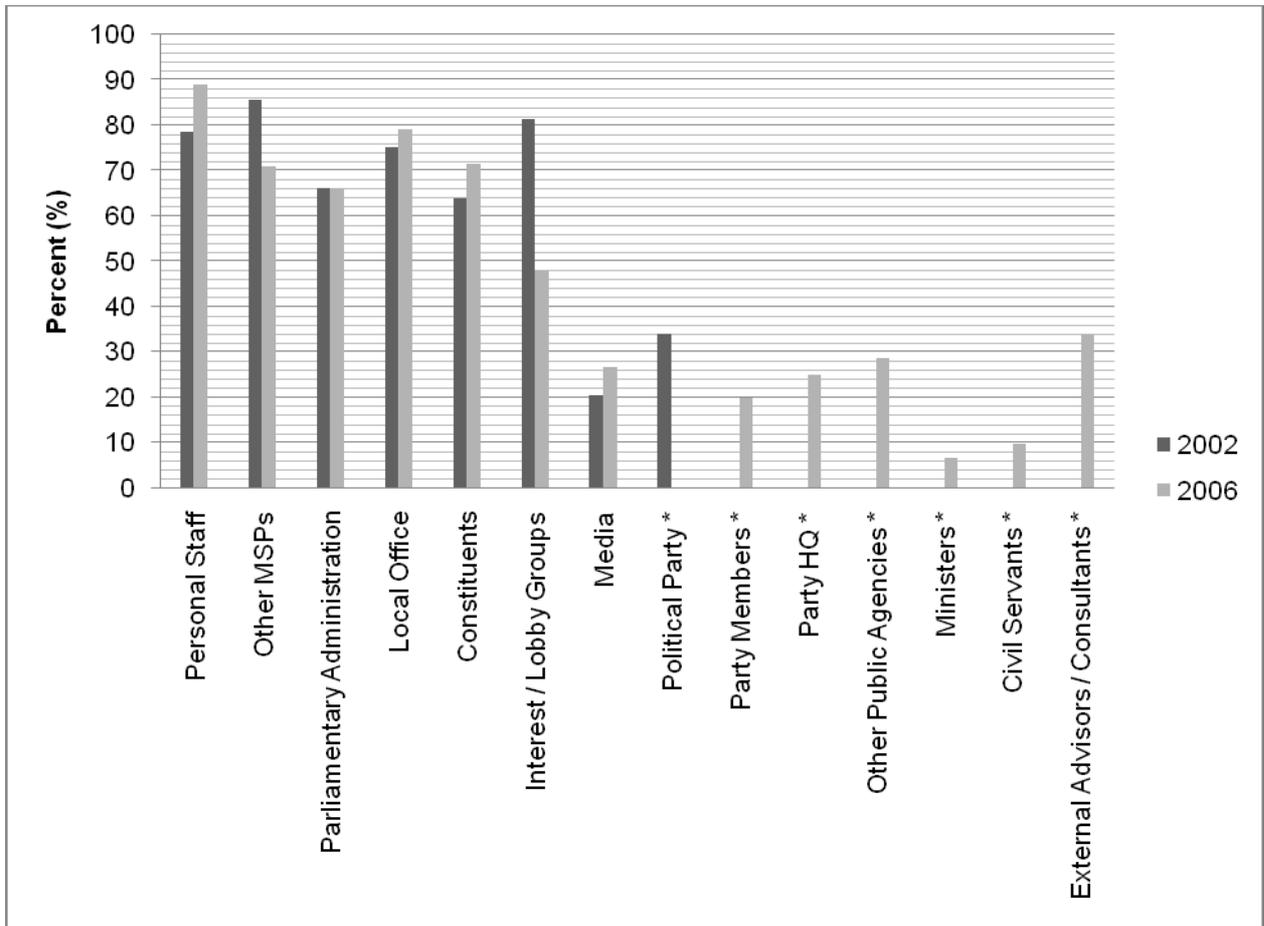


Figure 4. Source of Email Received (2002-6)



* directly comparable data not collected in both surveys

Figure 5. Website Features (2006)

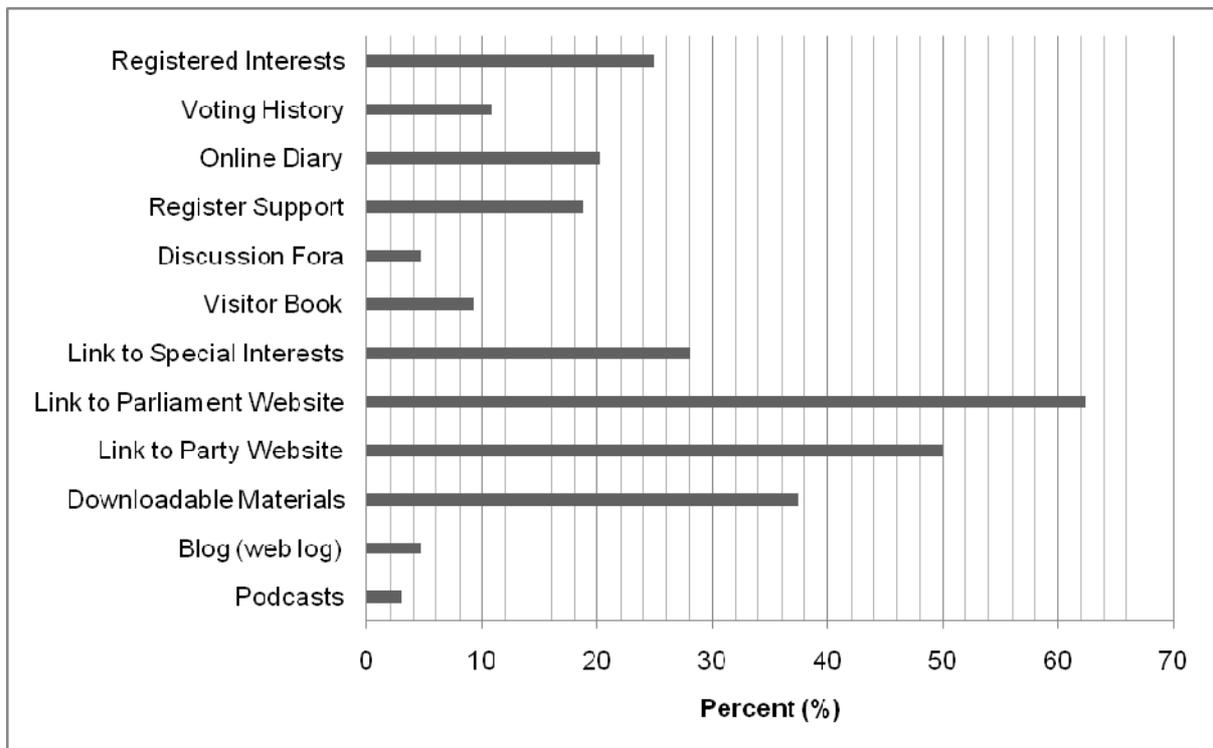


Figure 6. Usefulness of Communications Technologies for Parliamentary Work (2006)

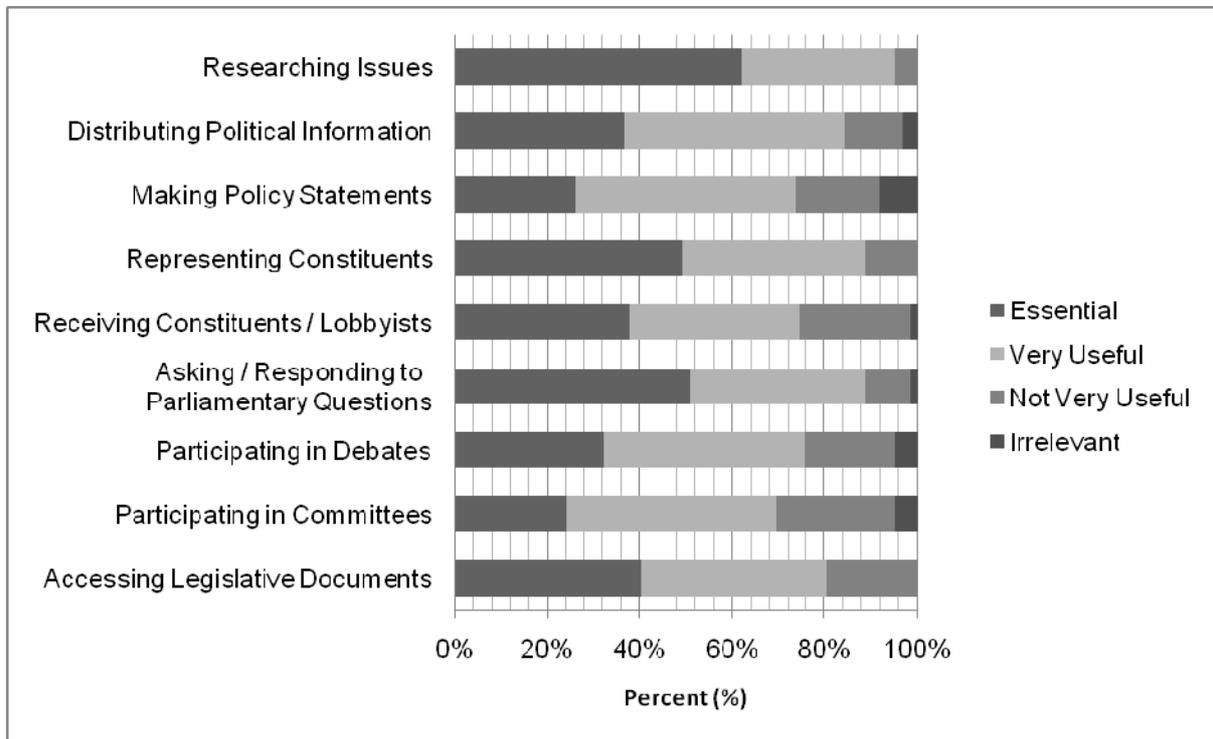


Figure 7. Frequency of ICT Use for Communication with Parliamentary Actors (2006)

