Chapter 11
Major Findings, Conclusions, and Recommendations

This final chapter notes some of the major developments in ICT over the past two years that are affecting parliaments. It then draws conclusions about the overall implementation of e-parliament at the global level based on a summary of the most significant findings reported in the previous chapters. Finally it makes recommendations for how parliaments, individually and collectively, can advance the state of ICT to strengthen parliamentary democracy.

THE INTERSECTION OF TECHNOLOGY AND POLITICS

Since 2010 ICT has continued along a path of innovation and growth that is making it an indispensable tool for public bodies and private institutions, as well as for individuals. While these technologies can make work easier, they also bring greater attention and therefore more scrutiny to the public governance environment. This intersection of technology and public policy has significant implications for parliaments.

Among the most far reaching developments that affect civic life are the increasing availability of sophisticated mobile devices and applications that support communication among individuals and institutions and provide access to information at any time from nearly any place. The International Telecommunication Union (ITU) has estimated that total mobile-cellular subscriptions reached almost 6 billion by end of 2011, corresponding to a global penetration of 86 per cent. This growth was driven mainly by developing countries, which accounted for more than 80 per cent of the new mobile cellular subscriptions added in that year. And the number of worldwide users of the various social media will likely exceed 1 billion by the end of 2012.

These advances in communications technology and their rapid dissemination now make it possible for many more citizens to engage in political activities. At the same time, they have fostered the growth of parliamentary monitoring organizations (PMOs) that look closely at the work and performance of legislatures. These groups are able to harness technology to provide citizens with additional information about their parliament and its members. They also use social media to support civic engagement and encourage participation in the political process, and provide additional research services to parliaments.

Besides the advances in communication technology, there have been other important technical developments that make it possible for parliaments to conduct their work more efficiently and at lower costs, both financially and environmentally. Shared systems and services available via cloud

computing are becoming affordable for most parliaments, including those in developing countries. The advantages – lower costs and access to a ready-made infrastructure and to applications - are significant enough that even technically advanced parliaments are beginning to use them. Gaps still exist for parliaments in many developing countries, especially in terms of access to low cost computing devices and high speed Internet connections. These divides will narrow, however, as long as government policies allow mobile broadband capacity, low cost mobile devices, and cloud services to proliferate at competitive prices.

CONCLUSIONS FROM PREVIOUS SURVEYS

Based on the 2007 survey, the *World e-Parliament Report 2008* identified three levels of adoption of technology. At the high end some legislatures were very successful in their use of ICT to support their goals. However, the survey estimated that less than 10 per cent of respondents fell into this category, and these parliaments were all from either the high or upper middle income groups. At the lower end, at least 10 per cent and possibly as many as 30 per cent of chambers, were so constrained by resources that it was possible that they could not provide even the most basic ICT services. In the middle were parliaments whose ICT systems and services would have to be described as uneven at best.

Overall the 2008 Report made evident that there was a substantial gap in most parliaments between what was possible to achieve by using ICT as a means to support the values and goals of parliaments and what had been accomplished. This gap was especially pronounced among legislatures from countries with lower income levels.

The 2010 Report established a statistical methodology for assessing ICT in legislatures that provided a more detailed description of their state of e-parliament. The methodology assigned a numeric score to six categories related to the management and implementation of technology assessed by the 2009 survey. Scores resulting from the methodology were derived from responses to survey questions linked to each of the six ICT categories. These scores were then combined to provide an overall assessment of e-parliament both globally and regionally.

On the basis of 100 per cent as the highest possible score[1], total overall scores in 2010 for individual parliaments ranged from 14 per cent to 83 per cent. Within the six categories, scores ranged from a high of 66 per cent for *infrastructure* to a low of 28 per cent for *communication*. The other scores were *envisioning and managing* at 51 per cent, *document systems and standards* at 46 per cent, *parliamentary websites* at 45 per cent, and *libraries and research services* at 43 per cent.

The average total score for all chambers was 45 per cent. Only 20 per cent of parliaments achieved a total score of at least 66 per cent; 30 per cent had a total score of 33 per cent or lower. As expected, scores were directly related to income level. Those at the highest income level had an average score of 60 per cent, well above those at all other levels. Those in the lowest income group had an average score of 28 per cent.

The low state of technology reflected in some of these scores had a direct impact on a large number of the 27,249 legislators who were members of the parliaments that participated in the 2009 survey. For example, 16 per cent of the members (4,301) did not have access to the Internet;

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1   Scores represent the percentage achieved of the maximum possible number of points for each category and for the total of all categories.

20 per cent (5,365) did not have a personal computer provided by the parliament; 28 per cent (7,726) could not access the text and current status of proposed legislation on their parliament's website; 31 per cent (8,508) were not offered any type of training or orientation in technology; and 47 per cent (121,840) were in parliaments whose websites lacked accessibility standards for persons with disabilities.

CONCLUSIONS FROM THE 2012 SURVEY

While many of the same challenges to the effective use of ICT continue to be experienced in 2012, the findings of the latest survey suggest that there has been limited, but nevertheless important progress in the state of e-parliament in the past two years. Data indicate that: more senior political leaders are engaged in setting the goals and objectives for ICT in the institution; mobile devices and applications are being adopted more rapidly than expected; the implementation of XML for bills has increased; more parliaments now have systems for managing plenary and committee documents; and, both the intent and the actions of parliaments to share information and to improve technology through collaborative efforts and participation in networks has risen substantially. Particularly significant is the finding that despite the challenges faced, parliaments in the lowest income level are closing the technology gap, While still very large, the difference in the average e-parliament scores for those in the highest and the lowest income groups is much lower in 2012 than it was in 2010.

Despite these signs of progress, many parliaments still face substantial obstacles in their efforts to enhance the state of their ICT to support the work of the institution. For example, many members still lack personal computers provided by the parliament and are not connected to the parliament's local area network (LAN); many libraries still lack access to technology that enables them to provide better information services; an open document standard (XML) has been implemented by only about one quarter of all chambers; and, best practices in the use of the new media for two-way communication with citizens are still not well understood. Most parliaments identified two impediments particularly challenging: lack of financial resources and lack of adequate staff. Parliaments at all income levels reported that they face financial constraints. And it is especially telling that even parliaments at the highest income level said that ICT staff capacity was the biggest challenge.

Many parliaments also face serious external problems. These include their country's limited access to high speed Internet, the citizens' lack of access to technology, and the parliament's lack of independent budget and hiring authority.

KEY FINDINGS

The conclusions presented above are based upon a list of 30 key findings from the 2012 survey described below.

Overall – the global view

1. A majority of parliaments reported that the three most important improvements in their work made possible by ICT were: 1) more information and documents on the website; 2) increased capacity to disseminate information and documents; and, 3) more timely delivery

of information and documents to members. It is important to note that these three enhancements also serve citizens and help the parliament to be more open and transparent.

2. Global e-parliament scores were up for the 2009:2012 comparison group in five of the six categories assessed, as well as the total score:
   - Total average score was up from 48 per cent to 51 per cent, a 5.8 per cent improvement
   - Communication between parliaments and citizens improved by10.6 per cent
   - Oversight and management of ICT improved by 8.6 per cent
   - Libraries and research services improved by 7.1 per cent
   - Parliamentary websites improved by 6.4 per cent
   - Systems for creating document and standards improved by 5.9 per cent

3. Parliaments in low income countries are closing the e-parliament gap; they have reduced the difference between their average total e-parliament score and that of parliaments at the high income level by over 25 per cent in the last two years.

4. Services for members have improved on 8 of 12 indices. Stated in positive terms this means that in 2012 more members could count on:
   - Reliable electrical power
   - Personal desktop or laptop computers provided by parliament
   - ICT training or orientation programs provided by parliament
   - A legislature with a strategic plan for ICT
   - Access to the Internet
   - Access to the parliament's intranet
   - Access to a database of the laws passed by parliament
   - Personal e-mail accounts provided by parliament

5. Measures assessing the short term goals (2010-2012) of the e-Parliament Framework 2010-2020[2] showed progress: 8 of 12 targets were met or exceeded by early 2012.

6. Mobile devices and applications have been adopted more quickly than the implementation of new technology normally occurs in parliaments.
   - 51 per cent provide members with a smart phone or tablet
   - 35 per cent have developed applications for mobile applications to deliver information to members
   - Some parliaments now make all documentation for plenary sessions available to members on a tablet, thereby substantially reducing printing costs
   - 37 per cent offer members remote data access
   - 34 per cent offer mobile access to the parliament's website

7. The percentages of parliaments willing to *provide support* to other parliaments to improve the state of ICT doubled between 2009 and 2012; the same degree of increase occurred among those willing to *receive assistance* with ICT.

8. The need for assistance with ICT remains high. There were increases at every income level of those parliaments that would like to receive assistance.

Openness through communication and websites

9. Webcasting is growing and will be available in most parliaments in a few years; 89 per cent of parliaments are either currently webcasting plenary sessions or are planning or considering it.

10. The use, or intended use, of social media, in a variety of forms is also growing. For the

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2   Proposed by the Board of the Global Centre for ICT in Parliament; see *World e-Parliament Report 2010*, Chapter 10.

first time, two social media tools were in the top ten of those used by the most parliaments. Of the techniques that the most parliaments reported they were planning or considering implementing, three of the top four involved social media.

11. Use of e-mail to communicate with citizens by *some or most* members (82 per cent of parliaments) and committees (56 per cent of parliaments) has been steady since the 2009 survey and may have peaked; the same may be true for the use of websites by members (54 per cent) and committees (37 per cent).

12. Citizens do use technology to communicate when they can. Almost 80 per cent of parliaments reported increasing communication from citizens using ICT when it is available to them.

13. The amount and the quality of website content have improved slightly. Although the average percentages of parliaments that provide information related to core parliamentary functions remains low for three of five categories, there were increases in 2012 resulting in higher overall percentages: legislation (63 per cent); plenary activities (62 per cent); oversight and scrutiny (39 per cent); committee activities (39 per cent); budget and public financing (34 per cent). Legislative information is now more complete, as seen in the increase in the percentage of parliaments that link relevant information and documents to bills.

14. The IPU's *Guidelines for Parliamentary Websites,* available in several languages*,* has been widely used by parliaments since its publication. 46 per cent of parliaments are following the recommendations for designing and maintaining the website.

Support for members

15. Basic services for members are available in most parliaments. For example, 82 per cent provide members with a personal computer and 86 per cent provide them with access to the Internet.

16. Support for members in plenary sessions is good in many parliaments: nearly three quarters of parliaments allow tablets in plenary and 65 per cent permit smart phones, up from 46 per cent in 2009; 57 per cent have electronic voting systems.

17. The number of parliaments providing intranets services and content is growing and is now up to 57 per cent.

18. The commitment to provide training for members is high: 56 per cent of parliaments said they currently provide ICT training or orientations for members and 31 per cent said they were planning or considering it.

Efficiency of operations

Document Management

19. The number of parliaments with document management systems for committee and plenary documents has increased in every survey since 2007. By 2012 the average percentage of parliaments having systems for each of six types of document was up to 64 per cent.

20. Use of XML for proposed legislation increased and is now in use in 43 per cent of the parliaments that have a system for managing bills3.

21. There has been significant progress in major international efforts to advance the use of

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3   It is important to note that the use of XML applies only to those that have a document management system for bills. The net result is that just under 20 per cent of all parliaments in the survey use XML for proposed legislation. See also item 8 under Major Persistent Gaps.

XML in parliaments and to move toward an international parliamentary and legislative XML standard.

Libraries

22. Libraries that have digital capacities are now able to provide a growing range of digital services for members and the public.

23. The average global digital capacities score of libraries[4] was over 50 per cent in 2012. High scores are seen in specific areas for libraries as they: have a system for managing resources (77 per cent); are connected to parliament's intranet (58 per cent); have own website (44 per cent); collaborate digitally (35 per cent); subscribe to databases and journals online (49 per cent); maintain digital archive (43 per cent). A significant increase is evident in participation in networks and associations, which is now 64 per cent (up from 45 per cent in 2009).

24. The average global digital services score for libraries was also over 50 per cent in both years, if the use of social media is excluded from the analysis. Specifically, those with a website organized by issues are now 43 per cent; 62 per cent have the ability to receive requests electronically; 35 per cent use alerting services; 59 per cent contribute to the parliamentary website; and, 58 per cent serve the public and provide access via email and website.

Infrastructure

25. Most parliaments now report that they are able to provide basic ICT services, such as personal computer support, systems administration, web publishing, and network operations. Of the nine services, six are provided by 75 per cent or more of all parliaments.

26. Internet is available in almost 100 per cent of parliaments and most legislatures provide wireless access to it. Speed and reliability are rated adequate or better by most, with the exception of those at the low income level: 35 per cent of parliaments in this group reported that reliability was not adequate, and 45 per cent reported that speed was not adequate.

27. Training for in-house ICT staff is provided in 75 per cent of parliaments; the percentage of in-house staff that received training in the last year was about 45 per cent.

Planning and managing

28. Political leadership is reported as more engaged than in previous surveys with 56 per cent of respondents identifying the President or Speaker as being involved in setting ICT goals and objectives, up from 41 per cent in 2009.

29. More members and other users are participating in planning and managing ICT; in over half of parliaments that have a special group to provide direction and oversight for ICT a member of parliament now chairs this group.

30. Of the 60 per cent of parliaments that do have a strategic plan, an increasing number manage it well through regular updates (90 per cent) and the establishment of criteria to measure success (68 per cent).

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4   Score based on the average percentage of parliaments having each of the specific capabilities.

MAJOR PERSISTENT GAPS

Despite the evidence of progress cited above, the 2012 survey also showed that there were major persistent gaps in the state of ICT in many parliaments, as listed below.

1. A large number of members are not connected to the parliament's LAN: at least 35 per cent of parliaments do not connect all members.
2. The number of systems that support lawmaking and especially budget and oversight still lags.
3. Four items that directly affect support for members remained at the same level as in 2009 or got worse: a library website that organizes information based on policy issues; a website with the text and status of bills; plenary calendars and schedules online; and accessibility standards for the parliament's website that meets the needs of persons with disabilities.
4. A technology gap exists in the communication between citizens and parliaments. Almost one fifth of parliaments reported that citizens do not use ICT to communicate with them; almost one quarter said that citizens do not have access to the Internet; and more than one quarter reported that citizens were not familiar with the technology.
5. A knowledge gap for both members and citizens also exists in the area of communication. Most parliaments noted that their major challenges were *not lack of access to the technology* but *lack of a knowledge base* in critical areas. The largest number of parliaments (over half) cited *citizens' lack of understanding of the legislative process* as a primary obstacle. Just under half cited *members' lack of experience with the technology.*
6. Most parliaments have not implemented tools that help them better understand and utilize communications from citizens.
7. Many libraries still lack an adequate technical infrastructure to function at full capacity.
8. Although the use of XML in the preparation of legislation by those parliaments that have document management systems for bills has increased, the overall percentage of all parliaments using XML for any document has not grown since 2007. It has remained steady at about one quarter of all parliament; and, one third continue to say that they are not planning or considering using XML.
9. The use of XML continues to be highly correlated with the income level of the country.
10. Although webcasting is growing and will be used in most parliaments in the near future, few have done anything about developing an effective and affordable method of archiving these records and ensuring permanent and timely access to them.
11. There has been little progress in providing explanatory material to assist users better understand proposed legislation or legislative procedures.
12. Lack of standards for access to websites by persons with disabilities persists in many parliaments.
13. Nearly two thirds of parliaments do not have a written vision statement for ICT and 40 per cent do not have a strategic plan that is regularly updated.
14. The lack of reliable electrical power is still a major obstacle for 15 per cent of parliaments.
15. The percentage of parliaments that provide the means to download parliamentary documents in bulk has remained static at 44 per cent.

It is important to note that many of these gaps exist for all parliaments, and not just those in the lower income levels.

STRATEGIES FOR ADDRESSING THE GAPS

There are a number of strategies that parliaments working individually and collectively, often with the support of the international donor community, can carry out to improve the state of ICT and use it more effectively to achieve their most important purposes. Based on the experiences of those that have achieved the most advanced levels of technology implementation, there are at least seven good practices that can provide a pathway to an effective e-parliament.

Invest in people

Knowledge is the foundation of the information society and this is especially true when applying technology in parliaments. An ICT staff needs to have the knowledge required to evaluate, implement, and maintain the systems that have become essential for parliaments. This requires a commitment on the part of the leadership of the administration to provide the resources needed to meet this demand, either through an ongoing training programme for internal staff and/or by the employment of contract staff who already have the necessary skills and experience and can transfer the know-how to the organization. The ICT staff also needs to understand the nature of parliaments, how they make decisions, and how they work. Expertise in technology alone is not sufficient for the technical staff of a legislative body.

Others need knowledge as well. Members need to understand how technology can serve both the institution and themselves as representatives of the people. Providing an adequate amount of quality training in a manner that is effective for members is difficult, but crucial if technology is to progress within the institution. This is an area that could especially benefit from the exchange of successful and less successful experiences among parliaments. Other staff of the parliament, who are users of technology, also need to build knowledge about ICT. This goes beyond learning just how to operate a system designed to support their work. The more they understand the underlying systems, the more effective communicators they can be with the ICT staff to ensure that the latter are able to design and deliver the most useful applications.

Finally, as the survey has shown, many citizens need a better understanding of how parliament works. This is a recurrent need that can never be completely met, but parliaments must continually address it using multiple forms of information exchange, both technical and non-technical.

Plan strategically, work efficiently

An ICT strategic plan serves many purposes: affirming a vision, goals and priorities; identifying intended outcomes; estimating costs and schedules; assessing progress and making changes as needed; and communicating the parliament's primary objectives for technology to all internal and external stakeholders, including funders. An effective implementation plan encompasses all technology projects; maps their relationships, interdependencies, and potential synergies; and leads to a more rational allocation of time and resources. The strategic plan helps a parliament determine where it wants to go, while the implementation roadmap helps the legislature see how it will get there. A less comprehensive approach will lead to inefficiencies, piecemeal results, and a likely failure to achieve the most important goals.

If contextualized within the broad development plan of the legislature, a well-executed ICT strategic plan will contribute to a more efficient parliament that can accomplish its work more

effectively at lower costs. For example, according to the priorities defined in the plan, documents could be produced more quickly and disseminated in fewer hard copies by leveraging mobile services for members, thereby reducing printing costs. Information managed seamlessly with open standards could be reformatted for multiple devices and disseminated to members and the public on a timelier basis. Communication within the parliament could be enhanced and made easier, resulting in an improved parliamentary knowledge base. At the same time communication with the public could be delivered via multiple channels and become more responsive to the growing demands of citizens for greater accessibility and transparency.

Go mobile

The benefits of mobile technologies for parliaments are becoming increasingly evident. They are more flexible, can be fast to implement, and are able to be used for communicating with growing numbers of citizens in new ways. They are often less costly to implement than wired services and can sometimes save money for certain functions. They enable parliaments to meet the growing demands from members to receive information wherever they are located and to be able to carry out their work in a paperless and mobile environment.

However, mobile technologies carry intrinsic risks involving security that need to be addressed. This is not a problem that parliaments alone face and is shared by both the public and private sectors. Parliaments will benefit from the advances that are made by the private sector in strengthening security, but they must be alert to the challenge within the legislative setting and make it a high priority in their strategic plan.

Go to the cloud

Cloud services also offer many advantages to parliaments. They enable parliaments to acquire fairly quickly a broad range of capabilities, such as e-mail systems, storage servers, document management and sharing systems, data services, and a growing list of other functions at relatively low cost without having to build and support the hardware, operating systems, and application software themselves.

Cloud services, however, do require Internet access that is reliable and has sufficient speed. This can be an obstacle for low income parliaments in particular, since many of them currently rate the reliability and speed of their connections as less than adequate. There also may be legal issues for some parliaments if their rules or laws place limits on where parliamentary data can reside. These matters can be resolved, however, with appropriate amendments to existing regulations that preserve parliamentary control over the data thus maintaining the intent of the original restrictions, and through stringent service level agreements with providers.

Share experiences and solutions

Parliaments share many of the same needs and same goals in their use of technology. At the same time, many parliaments already have developed and implemented solutions to address these needs and meet these goals. As a public institution, it is too expensive and an inefficient use of scarce resources for each parliament to create its own unique solutions given the extensive research, extended evaluations, repeated testing, specialized development, and tailored implementation

often required. This is especially the case when effective solutions are already known and when that knowledge can be made available to others.

The findings from the 2012 survey strongly underscore the fact that the time is right for greater cooperation and sharing among parliaments. An increasing number of legislatures that have the experience and the skills have indicated that they are prepared to share their knowledge and solutions with others; and the number of parliaments that want to receive this assistance has risen even higher in the past two years. Today, in addition to long standing groups such the ECPRD, there are more regional parliamentary organizations in place that can facilitate these exchanges, such as the APKN and ENPLAC. The Inter-Parliamentary Union continues to play a key role in this area on a global basis. There are also function-specific groups such as the IFLA Section on Library and Research Services for Parliaments and various regional associations that support sharing among parliamentary libraries. Clearly there is now a rich environment, a strong willingness, and a vital opportunity for sharing knowledge to meet critical ICT needs among many parliaments.

Establish a culture of openness and transparency

There are many technology-based tools and methods described in this Report for meeting the goals of openness and transparency. None of them will be effective, however, unless a parliament begins with a strong commitment to these values and makes them high priority strategic goals. This commitment must be shared by the political leaders and members; it cannot be simply assigned to the parliamentary administration. The intelligent use of ICT tools and methods requires, first, a culture of transparency that permeates the institution and is understood to be the prevailing practice.

There are, of course, limits to transparency for reasons of national security or the privacy rights of individuals. However, a culture of transparency assumes that the basic premise is that all information and documents should be made available and that exceptions should be established on a case by case basis. This approach may be contrary to what traditionally has occurred in some parliaments. Making the transition to the principle of openness and transparency is a necessary step to achieving the desired level of gains and benefits that e-parliament can bring.

A culture of transparency is consistent with the responsibilities of parliaments as the peoples' representatives, and it is consistent with the values of the citizens who live in the information society.

Promote genuine dialogue with citizens

Technologies for communicating with citizens are becoming easier to use; they are becoming less expensive; and they offer a growing array of methods for informing citizens more effectively.

While these features and benefits are positive, they carry an inherent risk that parliaments and members will tend to overlook: focusing more on *talking to* citizens and less on *listening to* citizens. There is some evidence for this in 2012 survey. The results indicate that fewer members are responding to e-mail from the public. Furthermore, only 17 per cent of parliaments have a system for helping members manage and respond to electronic messages from citizens and only one quarter have implemented practices for retaining or managing citizen input received via

technology. Finally, while over 70 per cent of parliaments use ICT to *inform* or *explain*, just over 50 per cent use ICT to *engage* citizens.

This trend is understandable, but also raises concerns about the implementation of new communications technologies in parliaments. While it is good that parliaments are able to use technology to tell citizens about the work of the institution; it is equally important that they use technology to hear what citizens have to say. Perhaps even more so. In this way parliaments can ensure that the use of new communications tools truly engages the public in a productive dialogue that promotes citizen participation in the political process.