

Romanelli, Mauro

Article

New technologies for parliaments managing knowledge for sustaining democracy

Management dynamics in the knowledge economy

Provided in Cooperation with:

National University of Political Studies and Public Administration, Bucharest

Reference: Romanelli, Mauro (2016). New technologies for parliaments managing knowledge for sustaining democracy. In: Management dynamics in the knowledge economy 4 (4), S. 649 - 666.

This Version is available at:

<http://hdl.handle.net/11159/1519>

Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics
Düsternbrooker Weg 120
24105 Kiel (Germany)
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)
<https://www.zbw.eu/>

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New Technologies for Parliaments Managing Knowledge for Sustaining Democracy

Mauro ROMANELLI

*University of Naples Parthenope
Via G. Parisi, 13 Napoli 80132, Italy
mauro.romanelli@uniparthenope.it*

Abstract. *Parliaments as information and knowledge-based organizations are embracing the Internet and new technologies of information and communication for coping with the crisis of legitimacy relying on citizens feeling disenchanted about politics. Parliaments as democratic institutions engaging citizens use technology for better managing sources of knowledge and information and developing public policies as result of knowledge sharing and dialogue between public institutions and citizens. Parliaments dealing with an increasing complexity of governing tend to introduce new technologies following an information or knowledge approach to achieve legitimacy as credible institutions encouraging an active participation of citizens, for building a sustainable and democratic path promoting active citizenship. Parliaments sustain democracy by managing knowledge and information, structuring the e-parliament between merely providing a channel for citizens having access to information and developing active communication for engendering a dialogue with citizens to be included and exert influence in the policy process by encouraging participatory models driving the search of knowledge for building policies.*

Keywords: *e-democracy, e-parliament, e-participation, social sustainability, knowledge management.*

Introduction

Parliaments as open and accessible institutions are embracing new technologies of information and communication (ICTs) for managing and sharing knowledge and information, developing public engagement coping with crisis of legitimacy relying on citizens feeling unheard, disenchanted about politics and distrusted about performances and behaviors of democratic and representative institutions (Coleman & Spiller, 2003; Coleman, Taylor & Van De Donk, 1999; Leston-Bandeira, 2014). Parliaments should contribute to building a sustainable democracy based on effective citizenship in terms of participation and contribution of citizens in the policy processes as result of knowledge sharing and dialogue (Denhardt & Denhardt, 2001; Geczi, 2007).

Technological developments contribute to strengthening the public participation promising new ways to build consensus (Kakabadse, Kakabadse & Kouzmin, 2003). Parliaments as organizations information driven and knowledge based are embracing new technologies for developing knowledge and information management as sources for improving processes and enhancing core functions in order to facilitate parliamentary work (Leston-Bandeira, 2007a; Leston-Bandeira, 2007b; Mulder, 1999; Suurla, Markkula & Mustajarvi, 2002). Parliaments as public institutions seeking and pursuing legitimacy and support (Carpenter & Krause, 2012; Suchmann, 1995; Meyer & Rowan, 1977) in virtue of operating under conditions of uncertainty (DiMaggio & Powell, 1983) tend to develop public engagement of citizens and promote participation by the use of ICTs for improving the efficiency, acceptance and legitimacy of democratic and consultative processes (Sæbø, Rose, & Flak, 2008) coping with declining trust of public in relation to the performances of political and democratic institutions (Leston-Bandeira, 2014), moving toward a participatory democracy and sustaining citizenship for building public trust (Griffith & Leston-Bandeira, 2012; Smith & Webster, 2004).

While many studies prefer to pay attention to the relationship between use of new technologies, the roles and behaviors of representatives, the forms of representation, few studies have investigated the role of parliament as organization and institution managing new technologies for improving parliamentary work and means to increase sources of democratic legitimacy in order to develop knowledge and information for better policy choices design and implementation (Leston-Bandeira, 2014; Leston-Bandeira, 2007a; Leston-Bandeira, 2007b). The aim of this study is to identify different paths parliaments may select for proceeding towards a sustainable and democratic development by embracing new technologies for structuring the e-parliament as technological and organizational infrastructure coherently with an information or knowledge approach between merely providing access to data and information for citizens or encouraging citizen participation making available documents to be viewed and discussed. Parliaments as intensive information and knowledge-based organizations (Leston-Bandeira, 2007a; Loukis, 2011; Mulder, 1999) may behave as sustainable representative institutions developing public policies as result of an interactive and collaborative process based on building consultation and dialogue, sustaining knowledge and values sharing between citizens and public institutions. This study is based on archival and qualitative data drawn by analysis and review of literature on the introduction of the Internet and the adoption of technologies of information and communication (ICTs) within parliamentary institutions coherently adapting the role of technology in information and knowledge management, by enforcing democratic instances and ideas towards a participatory

democracy and enhancing the potential of an increasing participation of citizens in public affairs and policy choices.

New technologies for sustaining democracy: new opportunities for parliaments and citizens

The introduction of technologies of information and communication within democratic and political processes opens up new opportunities and spaces for enhancing democracy by engaging citizens in the policy processes sustaining increasingly participation of people in the public life in terms of effective contribution and awareness of public affairs. New technologies are moving democracy towards decentralized representative systems (Zittel, 2003) by integrating participatory, direct and representative democracies (Anttiroiko, 2003). Technology helps to construct policymaking and to enhance the quality of democratic governance promoting an informed and critical citizenship (Kakabadse, Kakabadse & Kouzmin, 2003). Citizens want to participate and to be consulted feeling that their contributions may exert influence on the behaviour of legislators (Coleman, 2009).

Technologies sustaining democracy and participation of citizens can drive public institutions and people to follow a virtuous path valuing principles of equity, accessibility, collaboration for engendering knowledge and values sharing, sustaining the construction of meanings over time, developing consultative and participatory models based on the search of knowledge for better policies through interaction and consensus (Chadwick & May, 2003). The institutional context, the models of democracy and political culture shape the way of using ICTs as a means for reproducing social structures or potentially challenging them by introducing change in the political process (Parvez & Ahmed, 2006). Technology can be used as a rhetorical tool to oppose a civic engagement (Mahrer & Krimmer, 2005). Thereby, many people also in the developed world are excluded from the influence of ICT (O'Donnel & Bo Henriksen, 2002). Only an equalized access to technologies may ensure new people to participate in democratic policy processes (Krueger, 2002).

Parliaments coping with crisis of legitimacy by embracing new technologies

The crisis of legitimacy of representative democracy relies on citizens feeling increasingly unheard and distrusted of democratic institutions, feeling to be not respected by their representatives (Coleman & Spiller, 2003; Coleman, Taylor & Van De Donk, 1999). Technology can help

representative institutions to appear as responsive institutions promoting citizenship and participation, sustaining civic commitment and encouraging citizens to take part in public life and give inputs in parliamentary processes. Parliaments, traditionally perceived as closed and distant institutions, as the public face of public disengagement (Leston-Bandeira, 2007a; Leston-Bandeira, 2014) are embracing ICTs in order to contrast political apathy (Leston-Bandeira, 2012b) by developing public engagement coping with declining trust of citizens (Leston-Bandeira, 2014), pursuing trust endless in the relationship with citizens (Leston-Bandeira, 2012a). Parliaments as listening and learning institutions coping with deficits in representation, knowledge and engagement (Burns, 1999) have to work for constructing a meaningful interaction with citizens (Coleman & Spiller, 2003), developing information and communication flows with constituencies in order to legitimize policies (Hoff, Coleman, Filzmaier & Cardoso, 2004), promoting citizenship and accountability (Griffith & Leston-Bandeira, 2012), strengthening the channels of engagement, networking and linkages to sustain public trust (Lusoli, Ward & Gibson, 2006), reinforcing the ideas and values of representative democracy (Leston-Bandeira, 2007a) in order to ensure the legitimacy of parliamentary institution moving toward a participatory democracy (Smith & Webster, 2004; Smith & Webster, 2008; Smith & Gray, 1999). Parliaments are still perceived as sources of democratic legitimacy for functions of representation and accountability in virtue of an existing symbolic relationship between institution and citizens (Leston-Bandeira, 2012a), as mediators and referees in transition from the representative democracy to governance networks with more horizontal forms of accountability and power (Klijn & Skelcher, 2007), as symbols of political integration in a mixed polity comprising elements of parliamentary and post-parliamentary forms of governance (Raab & Bellamy, 2004).

Parliaments managing new technologies are perceived to be more efficient in developing their internal workings (Kingham, 2003) performing the existing functions to a better level (Gibson, Lusoli, Römmele & Ward, 2004). Parliaments are embracing new technologies as an innovation that enhances legitimacy under conditions of uncertainty (DiMaggio & Powell, 1983) and behave as organizations achieving legitimacy and enhancing continuity and credibility of organizational activities (Carpenter & Krause, 2012; Suchmann, 1995; Meyer & Rowan, 1977). The power of party discipline and the control political of executives over representative institutions tend to undermine the legitimacy of the electoral chain of command in western representative democracies (Raab & Bellamy, 2004). ICTs seem to contribute to enhancing the opportunities of direct democracy and erode the continuing relevance of representative institution (erosion) or reduce the reliance on intermediary representative bodies (limited

erosion) (Gibson, Lusoli, Römmele & Ward, 2004). Thereby, technology offers parliaments the opportunity for building a more direct communication with citizens bypassing traditional parties and other political intermediaries (Leston-Bandeira, 2012c).

Parliaments could adopt the technology for modernization and reform or for engaging people in the political system (Gibson, Lusoli, Römmele & Ward, 2004) leading citizens to participate and be involved in decision-making processes by promoting active and democratic citizenship coherently with forms of a deliberative or strong democracy (Åström, 2001; Päivärinta & Sæbø, 2006). Thereby, the technological modernization does not automatically make available new forms of democracy because of varying political context and dynamics in different countries (Zittel, 2004).

New technologies for sustaining the participation of citizens

New technologies are becoming an opportunity for citizens exerting influence on policymaking (Grönlund, 2003). ICTs help to encourage participation for improving the efficiency, acceptance and legitimacy of democratic and consultative processes (Sæbø, Rose & Flak, 2008) by legitimizing an efficient decision-making process for sustaining social value over time (Luehrs & Molinari, 2010). Technology can enhance lateral communications among citizens opening up to information access improving the quality of communication. Increasingly, technological developments contribute to enhancing and strengthen participation by leading to the construction of policy processes as result of dialogue, values and knowledge sharing. Policy processes can be constructed as interactive and collaborative process by consultation, dialogue and confrontation (Denhardt & Denhardt, 2001) through public institutions interacting with citizens and people involved to play an active role and contribution (Al Sudairy & Vasista, 2012). According to a *civil society model*, technology should encourage connections among citizens in order to promote public debate by gathering broad inputs for an informed and critical citizenry (Kakabadse, Kakabadse & Kouzmin, 2003). New technologies help citizens to proceed to direct and active participation in the policy process to hold politicians accountable and responsive for their actions (Trechsel, Kies, Mendez & Schmitter, 2004).

In a strong model of democracy, participation serves as means for both giving people power and providing education for an increased understanding of society. Citizens act as opinion formers. The ground of legitimacy is the public debate. The mandate of the elected representatives is interactive. ICTs focus on the discussion (Åström, 2001). Technology

should help to build a strong democracy relying on searching good reasons to vote and choose, to support the opinions, opening up to interactive debate among citizens informed (Barber, 1999). The e-democracy, as the use of ICTs to support the democratic decision-making processes, relates to e-participation as knowledge, interactive and collaborative process for building a dialogue ranging from e-enabling for taking the advantage of a large amount of information available to e-engaging to enable contribution and support debate, to e-empowering for leading citizens to exert influence on the policy agenda (Mcintosh, 2004).

There are three levels to take part in the decision-making and influence the policy agenda: government make available information for citizens in a one-way relationship (information); citizens are encouraged to contribute their views on a particular issue (consultation); citizens are empowered by actively participating in the policy making process (active participation or partnership) (OECD, 2003). Sustaining active participation of citizens will depend on both politicians and citizens willing to experience and implement new channels of communication (Cardoso, Cunha & Nascimento, 2006).

Parliaments as organizations information driven and knowledge based managing new technologies

Parliaments as democratic and representative institutions have to serve the public interest as result of dialogue with citizens as partners for better developing sustainable policies (Denhardt & Denhardt, 2001; Vigoda, 2002). Parliaments as organizations information driven and knowledge based are embracing and introducing new technologies of information and communication for managing information and producing knowledge to be used and shared for developing better policy choices.

Public sector organizations embracing technology between information and knowledge management

Developing knowledge management as a systematic approach to the capture, management, and dissemination of knowledge has the potential to transform public sector organizations improving the public sector renewal processes (Edge, 2005). Public institutions should develop transparent processes facilitating a two-way transfer of knowledge between institution and stakeholders for building a successful partnership and developing a better sustainable policy (Riege & Lindsay, 2006). Public organizations developing new technologies as a dimension of a knowledge management approach should improve the organizational responsiveness to social needs

maximizing the knowledge of decision makers before solutions are applied (Henry, 1974). ICTs can play an important role in determining success or failure of the implementation of knowledge management systems.

New technologies help to develop and sustain information and knowledge sharing (Fang, 2000). Thereby, information and knowledge require different management concepts and tools (McDermott, 1999). Parliament is a media infrastructure re-presenting sources of information and knowledge through new technologies (Mulder, 1999). Organizations should develop an own way of dealing with information and knowledge (Tseng, 2007) and select a knowledge strategy to be developed into an organizational and technical architecture (Zack, 1999). Information can be managed in digital form. Knowledge exists only within an intelligent system (Blumentritt & Johnston, 1999). In the public sector, information management systems are well developed while knowledge management systems are still in its infancy (Cong & Pandya, 2003; Blumentritt & Johnston, 1999; Wiig, 2002).

Parliaments as public organizations information intensive managing knowledge

Parliaments as democratic institutions through which governments are held accountable to the electorate perform three main functions: oversight, representation, and legislation. Parliaments have to issue and enact laws, represent the interest of voters and oversee the executive branch of government monitoring the work of the executive authority, debate and define policy priorities. Parliaments are considered as organizations knowledge based and driven by developing knowledge management as a source for better enhancing parliamentary functions improving work processes and procedures, employing the members of parliament for acting as knowledge workers developing expertise in particular areas in order to contribute to policy formulation (Suurla, Markkula & Mustajarvi, 2002). Parliaments producing knowledge policy making related to documents, laws, acts (Loukis, 2011) are intensive information organizations and media infrastructure managing knowledge for developing public policies (Leston-Bandeira, 2007a; Mulder, 1999) as sustainable organizations using, disseminating and sharing knowledge establishing objectives related to social and environmental issues (Leon, 2013).

New technologies for parliaments sustaining democracy

New technologies are driving parliaments as responsive institutions to make available documents and information to be viewed and discussed by

citizens in order to improve internal processes and develop e-participation initiatives. Several drivers lead to the adoption and introduction of technology within parliamentary institutions working for building the e-parliament as technological infrastructure for managing information, ensuring openness and transparency restoring an accountable relationship with citizens and building a source of knowledge sharing and creation by developing e-participation initiatives and tools.

The drivers for developing new technologies within parliamentary institutions

Several factors exert influence on the introduction and development of new technologies within the parliamentary institution. International organizations support the development of ICTs within parliamentary administrations. The Global Centre for ICT in Parliament, a joint venture between the United Nations Department of Economic and Social Affairs (UNDESA) and the Inter-Parliamentary Union (IPU) together with a group of parliaments to develop new technologies as a means to modernize parliamentary processes, strengthen the role of parliaments in the promotion of the information society by fostering ICT-related legislation performing three tasks: information sharing and networking, analysis and research, technical assistance and advisory services. The Inter-Parliamentary Union (2009) recommended the guidelines for structuring contents and designing parliamentary websites coherently with the objectives of transparency, accessibility, accountability and effectiveness of the parliamentary institution.

The age of parliament, the structure of the parliamentary business and staff organization, the constitutional parliamentary system may affect the efforts of parliaments in developing and improving parliamentary core functions coherently with ICTs processes and new technologies (Leston-Banderia, 2007a, Zittel, 2004). Institutional and political differences in terms of nature and independence of legislature from the government exert influence on parliaments deciding to make available data and information for access of citizens (Griffith & Leston-Bandeira, 2012). Parliaments are complex organizations that need support staff providing assistance and aide to the organization outside the operating workflow (Bontadini, 1983; Chimenti, 1981; Fox & Hammond, 1977). Thereby, parliaments acting as *ratifying* institutions of public policies defined outside are supported by a registration staff able to ensure merely administrative support. Moreover, *decisional* parliaments as governing legislatures playing a proactive role in formulating policy and overseeing its implementation are supported by consulting administration able to provide professional support on lawmaking and policymaking. The role of the legislature is fluid over time.

Mixed models of parliament and parliamentary staff may develop and emerge (Chimenti, 1981).

ICTs support parliamentary functions providing opportunities for managing knowledge as a significant resource to enhance parliamentary routine work efficiency (Suurla, Markkula & Mustajarvi, 2002). Thereby, only a few parliaments have developed ICT strategic capabilities in terms of using and sharing knowledge by stimulating a two-way dialogue with citizens (Office for Promotion of Parliamentary Democracy, 2010). ICTs driving parliamentary staff to take a relevant role as gatekeeper on managing parliamentary affairs in terms of gathering and interpreting data and information for analysis and evaluation (Leston-Bandeira, 2007a) require organizational interventions for professional innovation as significant source for integrating ICTs within internal processes and workings (Mulder, 1999; Office for Promotion of Parliamentary Democracy, 2010).

Structuring the e-parliament

Democratic parliaments should behave as institutions representative of the diversity of the people, transparent in the conduct of its business, accessible by involving the public, building an accountable relationship with the electorate. Parliaments are embracing new technologies for strengthening parliamentary core functions and including citizens in decision-making processes enabling them to actively engage in interaction with their representatives (Papaloi & Gouscos, 2011; United Nations Development Programme, 2006). Parliaments are introducing new technologies for building the e-parliament as an efficient organization where stakeholders use information and communication technologies to perform their primary functions of lawmaking, representation, and oversight more effectively, as a legislature empowered to be more open, transparent and accountable through ICT encouraging people to be more engaged in public life by providing higher quality information and greater access to documents and activities of the legislative body (United Nations et al., 2008, p.12). Designing the e-parliament helps to develop an equitable and inclusive information society enabling citizens to participate in the policy-making process, to view and discuss parliamentary records easily and permanently available (United Nations et al., 2008, 2012).

Parliaments embracing new technologies are perceived as more efficient and effective institutions improving their internal workings, processes and operations, strengthening parliamentary democracy (e-parliament), providing better information to the public improving the interface between governments and citizens (e-government), making parliamentarians to be

more representative enhancing the representative and allowing citizens to participate collectively and directly in the policy process (e-democracy) (Kingham, 2003). Parliaments have integrated new technologies of information and communication in order to enhance parliamentary functions (representative, legislative, scrutiny, oversight, legitimacy, education, conflict resolution) and introduce internal simplification, efficiency, and external transparency. ICTs contribute to increasing the opportunities for communication, dissemination and management of information becoming a core parliamentary activity enhancing the informational and communicational capabilities of the parliamentary system (Leston-Bandeira, 2007a; Smith & Webster, 2008).

The e-parliament becomes an opportunity for overcoming bureaucratic obstacles that facilitate information exchange and sharing (Coleman, Taylor & Van De Donk, 1999; Papaloi & Gouscos, 2011). ICTs make significantly legislators transparent and accountable by designing efficient processes as a tool of control and evaluation of public policy reinforcing the lawmaking functions (De Rosa, 2010). Parliaments managing digital document management systems tend to support transparency and efficiency of parliamentary operations building a knowledge resource in order to legislate effectively providing the public with relevant and accountable information (Office for Promotion of Parliamentary Democracy, 2010).

Structuring e-participation initiatives

The Internet provides a means of seeking the views of constituents on public policy leading parliaments as democratic representative institutions to engage effectively citizens in the political process (Coleman, 2009). Parliaments should select a strategic choice for engaging effectively citizens listened about preferences on policymaking in order to produce effectively democratic participation (Cardoso, Cunha & Nascimento, 2006), communicating how the institution works, showing how the feedback and inputs by the public are considered by the legislature (Williamson & Fallon, 2011). Parliaments designing organizational policies and capacity building programs should ensure the sustainability of e-participation initiatives moving towards participatory approaches (Ona, 2013). Parliament using advanced ICTs as computer supported arguments visualization and structured e-forums increase the quality and quantity of public participation widening the participation on legislation under formation (Loukis, 2011). The Internet and new technologies making available a growing amount of information about parliamentary institutions help to develop new forms of policies sharing (Kingham, 2003). Websites, consultation platforms, e-petitioning systems as some examples of ICT tools help to change or reinforce parliamentary institutions governed by path

depth processes, support more participatory forms of citizenship (Pratchett, 2007). Parliamentary websites ensure a more open institution making the decision-making more publicly visible by improving the levels of political knowledge among citizens receiving information on procedures, current legislative activity, and administrative acts increasing the chances of *ex-ante* and *ex-post* public scrutiny of legislatures (Dai & Norton, 2007a; Setälä & Grönlund, 2006). Thereby, websites seem not to open to participation and involve the citizens as a partner into the legislative and policy processes (Sobaci, 2010) fulfilling an administrative function of representing rather than searching a dialogue (Ward & Lusoli 2005) without expanding opportunities for consultation and participation and respecting only in few cases acceptable standards of openness, transparency and accessibility (Griffith & Leston-Bandeira, 2012).

Parliaments should involve citizens to effectively participate through acting petitions, communication with committees, submitting inquiries and directly activate their voice to parliamentarians (Missingham, 2001). New technologies help representative institutions to design and implement e-democracy initiatives ranging from one to two-way access of information to developing a two-way dialogue with citizens (e-consultations, e-petitions) by enhancing the active citizenship and engendering a meaningful dialogue, managing and understanding the feedback and significant contribution of citizens (Coleman & Spiller, 2003, Marcella, Baxter & Moore, 2002; Papaloi & Gouscos, 2011; Papaloi, Ravekka Staiou & Gouscos, 2012). Thereby, e-petitions as a response to declining trust of citizen help to sustain the legitimacy of parliamentary institutions and enhance the relationship between parliaments and citizens even if it is too early to evaluate (Bochel, 2013; Hough, 2012). The use of social media seems to be still in its infancy. Parliaments are slowly embracing social media for providing more information about a parliamentary business than sustaining participation (Leston-Bandeira & Bender, 2013).

Discussion and conclusions

Democratic parliaments have to rethink the approach to sustainability developing sources of knowledge in order to effectively contribute to policy formulation (Suurla, Markkula & Mustajarvi, 2002) for dealing with the growing complexity of modern societies (Burns, 1999). The future of democratic and effectively representative parliaments relies on engaging citizens and developing active participation in order to build the policy process as result of dialogue and knowledge sharing between institutions and citizens. Parliaments seeking legitimacy as responsive and accountable

institutions are exploring ways to adopt and use technology to strengthen participatory democracy in order to expand views on policy and public affairs. Introducing new technologies for engaging citizens is still in its infancy.

New technologies demand to design and implement effective changes of procedures, process, work organization and culture within the parliamentary institution (Dai & Norton, 2007b; Leston-Bandeira, 2007a). Parliaments sustain democracy by managing knowledge and information structuring the e-parliament between merely providing a channel for citizens having access to information and developing active communication for engendering a dialogue with citizens to be included in the policy process by sustaining and encouraging participatory models based on the search of knowledge for better policy.

The main contribution of this study is to identify different paths that parliaments may select following an information or knowledge approach for designing the e-parliament and e-participation initiatives coherently with sustaining the representative and constitutional role of the parliamentary institution in a complex scenario. Parliaments playing a decisional role, remaining independent from the government and having at disposal a consulting and professional staff should develop information and knowledge sources, connecting with public for engaging citizens and building a sustainable policy process. Parliaments may implement e-participation initiatives ranging from information to active participation enhancing interaction and accountability in terms of meaningful information and communication for citizens. Parliaments may select an information or knowledge management approach to the e-parliament design. Parliaments may select different choices for proceeding towards sustainability by merely modernizing processes and fostering citizen engagement by seeking legitimacy as a representative institution or using sources of knowledge in order to implement parliamentary core functions and develop active participation of citizens in building a policy process based on dialogue between institutions and citizens as shown in figure 1.

	Information approach	Knowledge approach
Informing citizens	Parliaments information driven	Knowledge Based Parliaments
Encouraging participation	Parliaments seeking legitimacy	Sustainable Parliaments

Figure 1. Identifying a path for building sustainable parliaments

Parliaments may behave as network organization enhancing active citizenship and encouraging citizens to participate in the political processes and sustaining knowledge sharing and creation for building a better policy. Parliament may follow an information approach to modernization of internal processes as open and accessible institutions making available documents and acts on legislative process developing e-participation initiatives for seeking greater legitimacy instead of engaging citizens effectively.

Sustainable parliaments are considered to be as representative institutions playing a decisional role and supported by a consulting staff embracing new technologies by following a knowledge management approach to designing of an e-parliament by improving internal processes and encouraging the active participation of citizens in decision-making processes. Citizens and institutions should work for building a path leading parliaments as democratic institutions to contribute to sustaining forms of democracy involving people and including citizens in the policy and legislative process. The path is still difficult and in its infancy. Representative institutions as parliaments and citizens should develop forms of democracy and participation as sources and drivers for better developing organizational capabilities for knowledge creation and sharing to be used for social, cultural and economic growth of society, political and human communities.

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Received November 16, 2016

Accepted December 14, 2016