Contexts of Open Government: cloud computing and record keeping[1]

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High impact citizen engagement initiatives are disruptive to common record keeping practices and approaches. Assuming this to be true, government records keepers, by following accepted, well-established practices and configuring electronic record keeping technologies accordingly, may undermine the objectives of increasing trust in government that citizen engagement initiatives are intended to foster.

This hypothesis is based on a study entitled "The Implications of Open Government, Open Data, and Big Data on the management of digital records in an online environment,"[2] conducted within the InterPARES Trust research project.[3] The first phase of the study developed definitions of the concepts of open data, big data, and open government and reflected on how they might influence records retention practices.[4] The second phase considered open government initiatives from a procedural standpoint.[5] Now in its 3rd and last phase, the study's focus is on Open Government.

Open Government is a topic with an enormous scope and, as a result, the focus of the study was narrowed to citizen engagement. One reason this particular aspect was chosen is that open data, on which there is already a considerable amount of literature, was considered too limited a focus in the sense that record keeping considerations relate to privacy protection of selected datasets and, less frequently, their retention. A second reason is an apparent absence of literature addressing record keeping in the context of citizen engagement, a core or central element of open government.

Information for the study was collected through an environmental scan of open government websites in Canada and semi-structured interviews with citizen-engagement and open government leaders in six Canadian jurisdictions:

- the federal (national) government
- the provincial governments of Alberta, British Columbia, and Ontario;
- the municipal governments of Toronto and Vancouver.

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[1] Presented at "Born Digital in the Cloud: Challenges and Solutions," 21. Archival Science Colloquium, 8 June 2016, Marburg, Germany.

[2] The researchers for the study are Grant Hurley, Valerie Léveillé, John McDonald, Kelly Rovegno, Katherine Timms and the author.

[3] The InterPARES Trust Project (https://interparestrust.org/) is directed by Dr. Luciana Duranti, University of British Columbia.

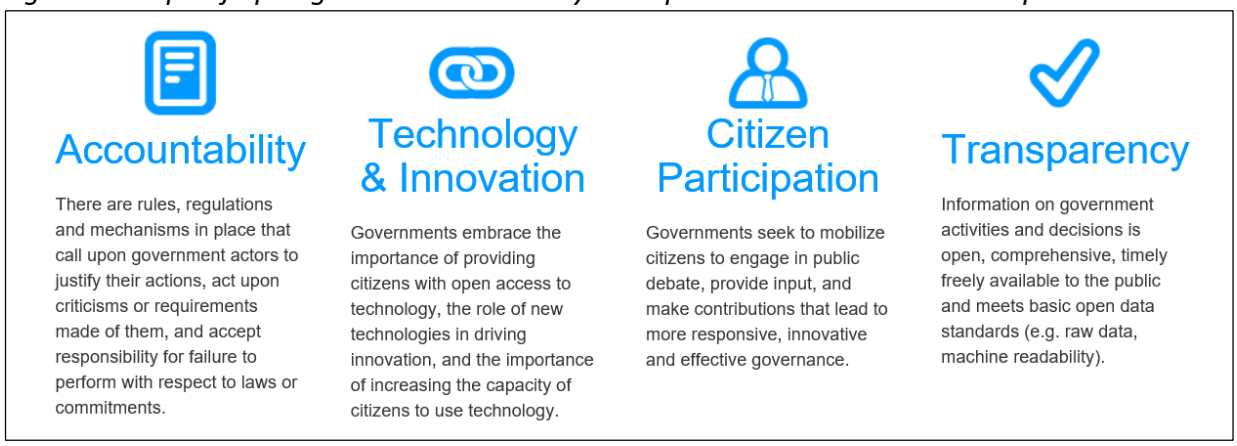
[4] See John McDonald and Valerie Léveillé, "Whither the retention schedule in the era of big data and open data?" *Records Management Journal*, XXIV, #2, pp. 99-121.

[5] See Valerie Léveillé and Katherine Timms, "Through a records management lens: creating a framework for trust in open government and open government information," *Canadian Journal of Information and Library Science*, XXXIX, #2 (June, 2015), pp. 154-190.

Four citizen engagement initiatives from jurisdictions were investigated in some detail.[6]

The challenge of defining open government became evident in the first phase of the study. There were many definitions available. For example, on 5 August 2013, Justin Longo posted no fewer than thirty definitions on the New York University's GovLab blog.[7] To resolve this uncertainty the study selected the outline of open government set out by the Open Government Partnership (OGP, see Figure 1) because, as of the time of this presentation, it had been adopted by sixty-nine countries around the world. As a result, the four concepts set out by the Partnership seemed to have a reasonably broad acceptance and, just as important, the Partnership has established, through an independent reporting mechanism, common meanings and measures to assess national achievements in relation to those concepts and "stimulate dialogue and promote accountability between member governments and citizens." [8]

Figure 1: Scope of open government as set by the Open Government Partnership[9]



It is worth noting that not only do two of the OGP values have the same name as two of the principles of the Generally Accepted Recordkeeping Principles (GARP), but which ones those two are, namely Accountability and Transparency.[10] The GARP do not have equivalent principles for the OGP values of citizen participation and technology and innovation – two values have equal weight within the OGP with accountability and transparency (see Figure 2).

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[6] The final report (forthcoming in 2016) of the study will summarize this information and will be made available on the InterPARES Trust website.

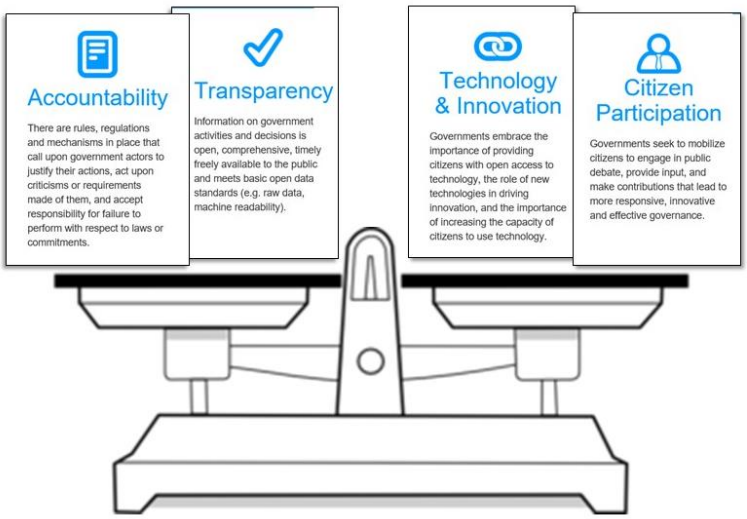
[7] Justin Longo, "Open Government – What's in a Name?" (http://thegovlab.org/open-government-whats-in-a-name/, accessed 7 June 2016)

[8] "The IRM [Independent Reporting Mechanism] produces biannual independent progress reports for each country participating in OGP." Open Government Partnership, "IRM Procedures Manual," p. 2 (http://www.opengovpartnership.org/irm/about-irm, accessed 7 June 2016).

[9] Open Government Partnership website (http://www.opengovpartnership.org/ accessed 7 June 2016). A more detailed description of these four core values is provided by the OGP's "Assessing OGP Values for Relevance" (http://www.opengovpartnership.org/sites/default/files/attachments/OGPvaluesguidancenote.pdf, accessed 7 June 2016).

[10] ARMA International, "Generally Accepted Recordkeeping Principles" (https://www.arma.org/docs/bookstore/theprinciplesmaturitymodel.pdf?sfvrsn=2, accessed 7 June 2016).

Figure 2: Record keeping practices and priorities.



Many governments rely heavily on concepts of accountability and transparency, especially the former, to illustrate the value of the records and justify the costs of record keeping programs. Compliance with statutory record keeping requirements is often advanced as direct evidence of governmental accountability, for example. Engaging citizens through conventional or long-standing means have tended to focus on informing the public and discovering their satisfaction with governmental actions at the next election. Citizens have always been able to write to their elected representatives and organize demonstrations to express their will. And elected representatives may actively solicit citizen input, but governments as a whole, i.e., the executive branch, is not known for seeking out ways to actively share power with citizens. It is noteworthy in this context that the intentions of participating governments in the OGP are expressed through "Action Plans."[11]

New technologies, such as social media technologies, not only provide new and possibly more effective channels for engaging citizens, they also pose significant record keeping challenges. In general terms the challenges of compiling comprehensive records of engagement initiatives and accessibly maintaining them records are unresolved. In other words, existing record keeping approaches to documentation where the records wholly reside in the control of the government are insufficient for documenting engagement initiatives utilizing new platforms and technologies, undermining the record manager's confidence that the accountability and transparency obligations of his or her organization can be met. The perceived risk is that new technologies challenge a record manager's ability to demonstrate the authenticity, integrity, and reliability of records in such systems.

For these reasons, citizen engagement activities within an open government context might be considered a disruptive innovation – disruptive in the sense that record keeping, now having to

[11] Open Government Partnership, "Develop a National Action Plan" (http://www.opengovpartnership.org/how-it-works/develop-a-national-action-plan, accessed 7 June 2016).

support substantive engagement, e.g., through the use of new technologies, as well as the better understood purposes of accountability and transparency, may need new or modified approaches to enable the records maintained to fulfil all their purposes. The term disruptive innovation was first used and defined by Clayton M. Christensen, as one that "creates a new market and value network and eventually disrupts an existing market and value network, displacing established market leaders and alliances [and having significant societal impact]."[12]

The study adopted the International Association of Public Participation's Spectrum to define what was meant by 'citizen engagement' (see Figure 3). While there are other ways of representing the scope of citizen engagement activities, the IAP2 Spectrum has been around for some time and was known to the citizen engagement leaders interviewed in the course of the study.

Figure 3: International Association of Public Participation Spectrum.[13]

IAP2'S PUBLIC PARTICIPATION SPECTRUM

iap2 international association for public participation

The IAP2 Federation has developed the Spectrum to help groups define the public's role in any public participation process. The IAP2 Spectrum is quickly becoming an international standard.

INCREASING IMPACT ON THE DECISION →

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision. We will seek your feedback on drafts and proposals.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will work together with you to formulate solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

The promises to the public set out in the bottom row are worth considering in relation to record keeping. For example, the Empower Promise – to implement what you decide – requires

[12] Wikipedia, "Disruptive Innovation" (https://en.wikipedia.org/wiki/Disruptive_innovation, accessed 7 June 2016).
[13] International Association of Public Participation, "Public Participation Spectrum," 2014 (http://c.ymcdn.com/sites/www.iap2.org/resource/resmgr/Foundations_Course/IAP2_P2_Spectrum.pdf?hhSearchTerms=%22spectrum%22, accessed 7 June 2016).

documentation that specifies who is making the decision, whether the decision is in the scope of the authority granted to that organization or individual, and that the implementation actually takes place and can be demonstrated to be what was actually decided. A government record keeper may not, however, be able to document the process by which the decision was reached within the organization or by the individual. Similarly, documents of the decision and assessing the implementation may not be held by the government – even though the government will presumably be held to account for its implementation (or failure to implement). Critical records for accountability and possibly transparency may not be in the control of a government records keeper.

The study cross-referenced the five engagement categories set out by the Spectrum against the five contexts established and confirmed by an earlier phases of InterPARES research, namely:

a) Juridical-administrative: The legal and organizational system in which the creating body belongs.
b) Provenancial: The creating body, its mandate, structure, and functions.
c) Procedural: The business procedure in the course of which a record is created..
d) Documentary: The archival fonds to which a record belongs, and its internal structure.
e) Technological: The characteristics of the hardware, software, and other components of an electronic computing system in which records are created.[14]

InterPARES identified these contexts as those essential to enable the verification of the authenticity of records.[15]

Reviewing the information collected through interviews and review of website content, the study found no common expectation of records created as by-products of citizen engagement efforts. That is, there were no comprehensive or common policies or practices among citizen engagement leaders for conducting citizen engagement initiatives. Perhaps as a result of this, there was no common understanding of what documentation was required or should be expected to result from a citizen engagement initiative, nor were there any substantive measures of success. Citizen engagement leaders noted that coordinating engagement activities across more than one department or jurisdiction, e.g., federal-provincial, were rare, possibly because of an absence of effective policies – for record keeping, coordinated communications, and engagement activities themselves.

How citizens were identified as individuals and as groups was likewise inconsistent across jurisdictions and heavily influenced by policies governing communications, which may be helpful for “Inform” or “Consult” types of engagement activities but which are less helpful for the remaining three categories. Furthermore the reliance on technology to enable engagement

[14] Definitions are taken from the Terminology Database established by the InterPARES 2 Project (http://www.interpares.org/ip2/ip2_terminology_db.cfm, accessed 7 June 2016).
[15] InterPARES 2, “Authenticity Task Force Report, p. 22 (http://www.interpares.org/book/interpares_book_d_part1.pdf, accessed 7 June 2016).

had the effect of fragmenting the record of engagement across technologies, not nearly all of which were in government control in the cases examined by the study. In an effort to bridge this gap, one of the study participants assigned the level(s) of the IAP2 Spectrum that, in his view, most closely matched the technology used in the context of the initiatives specifically investigated in the study (see Figure 4).

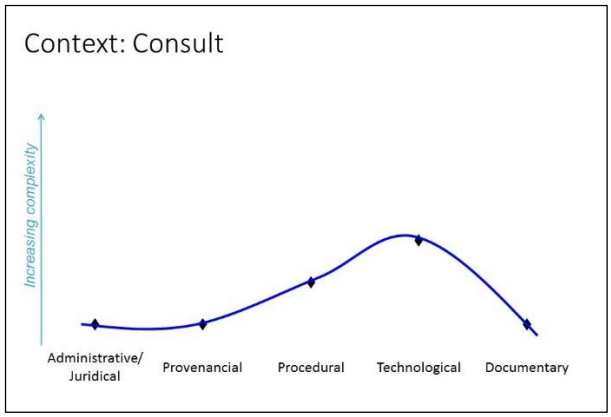
Figure 4: Technological context: matching technologies to engagement types.[16]

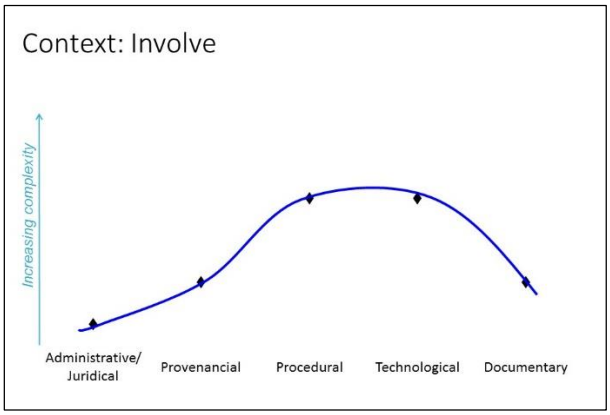
Technology	*Example*	*Example Jurisdiction*	*Example Initiative*	*User Abilities*	*Data Input*	*IAP2 Elements*
Blogs	Comments on posts	British Columbia	Liquor Policy Review[5]	Commentary	Unstructured text	Inform-Consult-Involve
E-mail	Letters in response to an issue	British Columbia	Liquor Policy Review	Commentary	Unstructured text	Inform-Consult-Involve
Surveys	Series of questions requesting opinion/rating of issue	British Columbia	Digital Services Consultation[6]	Commentary, scale ratings, etc.	Structured, semi-structured or unstructured text and numerical data	Consult
Popular social media platforms	Twitter	British Columbia	Liquor Policy Review	Commentary	Unstructured text	Inform-Consult-Involve
Collaborative documents	GoogleDocs	Ontario	Ontario Open Data Directive[7]	Editing, commentary	Unstructured text	Inform-Consult
Open data/open information catalogues	Open Data Catalogue[8]	Vancouver	General	Read only, possible comments	Possible unstructured text	Inform-Consult
Open data portals	Open Data Portal[9]	Alberta	General	Read, data analysis and comments	Interactive tables, charts, visualizations and comments	Inform-Consult
Proprietary social platforms	IdeaSpaceTO[10]	Toronto	General	Contribute "ideas," comments, voting	Unstructured text	Inform-Consult-Involve-Collaborate

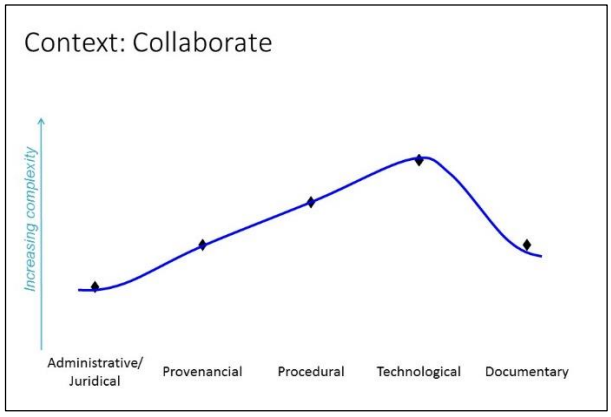
The following notional graphs indicate the contexts that may most challenge record keepers in support of citizen engagement initiatives. They are notional in the sense that there are no criteria or benchmarks for measuring or comparing the complexity of the technological contexts across engagement types. As such the purpose or value for including these graphs here is simply as a straw model for the reader to consider, based on their own experience and understanding of citizen engagement initiatives, the complexity of maintaining the five contexts for each type of engagement.

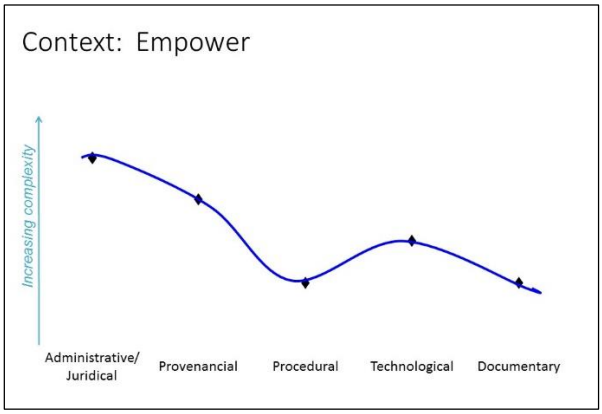
[16] Grant Hurley, "Contextualizing Technologies for Citizen Engagement: Seeking the Records and Supporting Transparency" (Unpublished paper) 2016, p. 12.

The “Inform” engagement category is excluded as it seems to embody a type of engagement familiar and commonplace in government, represented by the communications function. The “Consult” category may be more challenging for record keepers than “Inform” primarily due the potential range of technologies that might be used and secondarily to a perceived absence of engagement procedures.









The categories of “Involve” and “Collaborate” may be the most complex from a record keeping standpoint because almost every context seems undefined. How is provenance to be understood if there is no clear understanding of who is involved and what their level of authority or competence is? Will or should engagement practices differ depending on who is being involved? What about the technologies used and the information that they capture or simply process? Although these questions are posed from a record keeper’s perspective, they are not necessarily for record keepers to resolve – at least not independently. They considerations behind the questions need to be considered in the design and implementation of engagement initiatives, suggesting that these need to be collaborative exercises involving at a minimum the citizen engagement leader, the technology specialist to enable, and the record keeper to document the engagement.

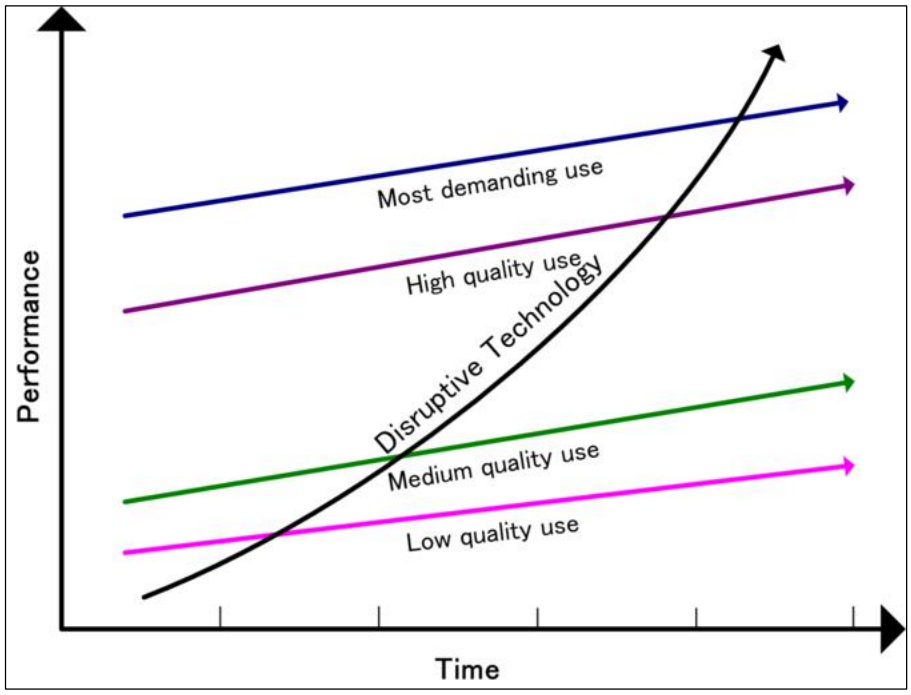
“Collaborate” suggests that organizations or individuals of equal standing are involved, which may complicate juridical-administrative, procedural, and documentary contexts of records resulting from such an engagement as different organizations may be governed by different

laws, implement different procedures, and have different record keeping practices and priorities. The "Empower" category is interesting because what one organization can "empower" another to do is not always clear.

The study found that most engagement initiatives of the jurisdictions investigated are at the lower impact range of the Spectrum, involving informing and consulting citizens. Few clear examples were found of collaborative or empowering initiatives and those were mostly found at the municipal or local levels of government. If open government – or at least the citizen engagement and technological innovation aspects of it – are a disruptive innovation, then it appears to still be at the early stages of disruption, per the graph shown in Figure 5.

> Disruptive innovations tend to be produced by outsiders. The business environment of market leaders[, i.e., current norms,] does not allow them to pursue disruption when they first arise, because they are not profitable enough at first and because their development can take scarce resources away from sustaining innovations... but once it is deployed in the market, it achieves a much faster penetration and higher degree of impact on the established markets.

Figure 5: Notional graph illustrating how technologies become disruptive over time.[17]



Interpreted into the context of record keeping, there is a lot of attention focused on engaging citizens and adopting innovative technologies to do so. Considering any one of the four "use" lines in Figure 5 as the normal trajectory for developing and adapting record keeping practices

[17] Wikipedia, "Disruptive Innovation" (https://en.wikipedia.org/wiki/Disruptive_innovation, accessed 7 June 2016).

and tools, once well established a significant gap may emerge between the initiatives and the ability to reliably document then.

Record keepers need to be vigilant to adapt our practices so that our work contributes to healthy governments and the priorities they are elected to address. In the absence of effective and common policies for citizen engagement, it is reasonable to expect that record keepers will continue to favor 'accountability-focused' practices that emphasize control of records, accept responsibility only for records under organizational control, and give priority to records that privilege protecting the organization over those that privilege shared decision-making.