

## Editorial

---

# Creating public value through Open Government: Perspectives, experiences and applications

Jing Zhang<sup>a,\*</sup>, Gabriel Puron-Cid<sup>b</sup> and J. Ramon Gil-Garcia<sup>b,c</sup>

<sup>a</sup>*Clark University, MA, USA*

<sup>b</sup>*Centro de Investigación y Docencia Económicas, Mexico*

<sup>c</sup>*University at Albany, State University of New York, NY, USA*

More and more, technology and policy changes are stimulating innovative adoptions that promise to create and deliver public values through more effective public services and programs or smarter government decisions and policies. The availability of data and the effective use of new strategies and technologies, such as Big Data, semantic Web, social media, data visualizations and analytics, together with the adoption of open and collaborative approaches among government, industry, NGOs, and citizens provide new opportunities to enhance transparency and accountability of government operations, facilitate the co-design of services, generate new venues for citizen participation, streamline operations, and reduce costs, and consequently, promote technological innovations and economic development.

What also have fueled the development are the Open Government Initiatives from the Obama administration, as well as similar open government initiatives of other States internationally. Since 2009, the US government and governments around the world have developed policy initiatives that promote disclosure of information held by both public and private entities [20,21]. Through the release of the Open Government Directive, the administration intended to promote transparency in government operations, participation from the public in decision making, and collaboration with multiple and diverse stakeholders [16]. The impact of the Directive efforts went beyond US and lead to an international effort of promoting open government through The Open Government Partnership [10].

However, open government initiatives overall have encountered many difficulties [22,27], and critics has pointed out that open government has a strong focus on technology solution instead of adapting organizational practices, policy and culture, lack of integration with existing legislation and regulation, lack of clear definition and measurable goals, divergent and ambiguous goals, and uncertain sustainability to the next administration [25,28]. In addition, the tradeoffs of transparency and national security, as well as economic return were criticized to be not carefully studied and articulated [4]. Similarly, after a few years into the implementation of open government policies, research remains limited in this area,

---

\*Corresponding author: Jing Zhang, Clark University, MA, USA. E-mail: JIZhang@clarku.edu.

especially studies that can link to and provide evidence for value creation in public sector. The understanding of public value, especially the public value in the context of open data and the pathway linking open data initiatives to value creation is still unclear.

Public value, first introduced by Mark Moore in his seminal contribution *Creating Public Value* [18], has become an increasingly popular term permeating in political science and public administration literature [24]. The development of the public value framework was a response to the shortcomings of New Public Management, a paradigm populated in 80s and 90s that applies management techniques from the private sector to the public sectors to target the perceived lack of efficiency and accountability of traditional public institutions [13]. Under the NPM regime, market approaches such as privatization and contracting out are practiced, and public agencies are encouraged to re-invent themselves to be more business-like and market savvy [15]. However, it has been increasingly recognized that public sector is considerable different from the commercial sector, and public interests and public value may not be traded at optimal level in a market economy [3].

Public value, therefore, was introduced as an approach to orient public organizations beyond the pursuit of efficiency and toward the generation of values that are desired by citizens and other stakeholders [24]. There are a number of key ideas that were introduced in Moore's work and further interpreted by its followers. First, what constitutes public value should not be limited to exclusively monetary gains of individual citizens, but be aimed at collective and long term benefits and values going beyond individual self-interests such as national security, fairness, equality, and environment sustainability. Second, this public value needs to be achieved in a way that is greater than the resources consumed in the process of creation, thus, the monetary and legal resources constrains are considered in determining the means by which the value are achieved [1]. Third, there is not a single set of absolute and universal applicable standard to determine public value, and public managers have to discern whether the value of one option is greater than another. Recognizing that it is often difficult to identify the needs and wants of the citizenry and what the public values are often less than coherent across different groups, scholars advocating the public value approach emphasize the importance of interaction through the imperfect processes of representative democracy [1,19,23]. The process of identifying public value is characterized as collaborative and engaging and involves a wide range of stakeholders and government officials [2].

Increasingly, the public value perspective has been adopted by digital government researchers [5,8,9,17]. The incorporation of public value in the discussion of government investment in information systems and open data technologies are especially relevant because the adoption of technologies and technology-enabled reforms are often connected to the goals to enhance service delivery, program effectiveness, and democratic values [6,7,26]. In a sense, they provide channels of engagement, inform the deliberation process, enhance the effectiveness of participation and collective decision making, monitor progress and performance, and ensure accountability and equity.

Critics, however, also pointed to the negative developments empowered by the technology and argue that the accountability and participation do not occur automatically [14], and special interests might be better equipped to master the technology, thus, have a stronger voice in this new technological environment [11,12]. Therefore, there is a need to study how the more recent policy initiatives and emerging trends of technological development interact with public value creation. This special issue features a collection of seven "best papers" from the 15th International Conference on Digital Government Research conference (dg.o 2014) that in multiple and distinctive ways attempt to tie the knot between these two concepts – open government and public value.

The opening paper of this special issue, "Creating public value through Open Government: Perspectives, experiences and applications", starts by recognizing that there might can be tremendous amount of

risks involved in opening up government data. Although open data initiatives has the potentials to create public values in the forms of better services, transparency, and accountability. Unintended consequences, such as lost privacy, information overload, unequal access to and distribution of the benefits from the open data, or misinterpretation of public information represent risks of openness. Using grounded approach, Zuiderwijk and Janssen developed a decision support model to aid public management in decision when to disclose and when not to. These authors conducted 15 interviews with personnel who are experienced in open data initiative and involved in publishing data for Dutch ministries. Insights from the interviewees as well as literature review resulted in a decision model encompassing consideration of the potential benefits and risks, as well as a list of contingent factors that would assist government in making decisions in opening up their data to the public. This research made a unique contribution in this special issue by recognizing the need to pay attention to the negative side of the open data, and providing a practical tool to help with the decision making processes.

The second paper, “Visualizing Aedes Aegypti Infestation in Urban Areas: A Case Study on Open data mashups” authored by Patricia Graziely Antunes de Mendonça, Cristiano Maciel, and José Viterbo, starts by recognizing that citizen participation would not be automatically trigger by the publication of government data in open format. For general public to fully monitor government actions and engage in the decision making process, they need to understand and interpret the data effectively. This paper proposed a strategy for publishing and visualizing data in a user-friendly manner though a sequence of steps. Using a case of *Aedes Aegypti* (dengue fever vector) infestation in the city of cuiabá in Brasil, this study tested this strategy. The results illustrated that the greatest difficulties were associated with the data collection because of the incompleteness and inaccuracy of the data published. The authors made suggestions for documentation of available data as a way to promote the effective use of open data.

With more and more voters are engaging with their candidates through social media, social media has provided politicians a new channel to convey to the public of the value and contributions that they can make for their constituents. In the paper authored by Sara Douglas, Roxanne B. Raine, Misa Maruyama, Bryan Semaan, and Scott P. Robertson, “Community Matters: How Young Adults use Facebook to Evaluate Political Candidates”, the subject of how technology savvy Millennials use social media for political deliberation and whether they obtain information differently through social media in comparison to non-social media is investigated. Using a grounded theory approach, the authors analyzed the differences in responses between groups with social media and non-social media treatment. The results indicated that Millennials was exposed to political information through serendipitous encounters both on- and offline, although they seldom sought out the information actively. In addition, besides the candidates’ stance on issues and their personality, Millennials who were exposed to candidates through social media tends to weigh more heavily on the community involvement compared to those who were exposed through nonsocial media. This study contribute to the literature on how the new generations use social media to form their impression on political candidates. The finding that the media changed the way by which young vote evaluate the candidate by adding community-based cues calls for future research in this direction.

The next paper, “Characterizing Democratic Deliberation in an Online Forum”, starts with the recognition that although online forms has been increasing popular for civic discourses, it is not clear whether the conversation has reached any quality results for the democratic decision making. Using content analysis of a case study of local newspaper forum on local planning, Jess Kropczynski, Guoray Cai, and John M. Carroll revealed the patterns of discourse and discovered that the online discussion did not lead to advanced progression toward deliberation because of a lack of development of common ground and assessment of alternative solutions – two ideal properties for meaning civil engagement. In addition to

the results, this study also contribute to the literature by the development of a progressive taxonomy that translated the two properties into coding scheme.

Value creation is at the heart of information technology adoption in the public sector. The actual impact and the evaluation of public value creation, however, was under studied. The fifth paper in this collection, “Digital Governance and Public Value Creation at the State Level”, authored by Dolores E. Luna, Abel Duarte-Valle, Sergio Picazo-Vela, and Luis F. Luna-Reyes, explores the impact of digital governance on public value creation along the dimension of competitiveness of the region, government efficiency, and the quality of electronic transactions. Using panel data from 32 states in Mexico from year 2010 to 2012, this study suggest that digital government are mainly utilized by citizen to conduct electronic transactions with government, and are more effective in providing informational and transactional services than promoting participation. Contrary to the common beliefs, digital government investment has a negative impact on the government efficiency and no significant impact on regional competitiveness. Instead, the level of technology adoption in general has a greater impact on value creation. Being one of the first attempts of establishing relationship between digital government capability and value creation, this study raised important questions for future efforts in both theory development and empirical tests on public value creation and digital government investments.

Following the theme on public value assessment from the previous paper, the next paper aims at building a practical framework by which government can incorporate public value thinking into their decision making practices. In the paper entitled “Using Public Value Thinking for Government IT Planning and Decision Making: A Case Study”, Meghan Cook and Teresa M. Harrison presented a “Public Value Analysis Framework” as a conceptual and deliberate tool to help managers to make investment decisions, and applied a case study of Urban Transportation Agency developing and implementing an Enterprise Asset Management system for transportation operation and strategic planning. This study illustrated major actions undertaken and the key insights and deliverables generated through each step, thus, provide a practical yet flexible guidance for public managers to identify and incorporate public value into government IT investment decision making.

Open data efforts carry the promises of creating public values such as citizen participation in decision making, co-creation of services with extensive users’ input, and promoting technological innovations. The last paper, “The Influence of Political Factors in Policymakers’ Perceptions on the Implementation of Web 2.0 Technologies for Citizen Participation and Knowledge Sharing in Public Sector Delivery” by Manuel Pedro Rodríguez Bolívar investigates the influences of a number of political variables on the perception of policymakers on the use of Web 2.0 technologies to deliver these types of public value, namely, citizen participation, knowledge sharing and technical innovation in service delivery among Spanish local governments. Using survey data collected from a sample of large Spanish municipalities, this study revealed that policymakers still consider that the primary role of Web 2.0 is for citizen to make suggestions through consultation, rather than as a tool for active engagement in co-production of public services. Cluster analyses further revealed interesting patterns of perceptions about the value created by Web 2.0 as they are associated with the policy makers’ political ideology, political competition, political stability, and political strength.

## References

- [1] Alford, J., & Hughes, O. (2008). Public value pragmatism as the next phase of public management. *The American Review of Public Administration*.
- [2] Benington, J., & Moore, M. H. (2010). *Public value: Theory and practice*: Palgrave Macmillan.

- [3] Bozeman, B. (2002). Public-value failure: When efficient markets may not do. *Public administration review*, 145-161.
- [4] Coglianese, C. (2009). The Transparency President? The Obama Administration and Open Government. *Governance: An International Journal of Policy, Administration, and Institutions*, 22(4), 529-544.
- [5] Cordella, A., & Bonina, C. M. (2012). A public value perspective for ICT enabled public sector reforms: A theoretical reflection. *Government Information Quarterly*, 29(4), 512-520.
- [6] Gil-Garcia, J. R. (2012). *Enacting electronic government success: An integrative study of government-wide websites, organizational capabilities, and institutions* (Vol. 31): Springer Science & Business Media.
- [7] Gil-Garcia, J. R. (2013). *E-Government Success Factors and Measures: Theories, Concepts, and Methodologies: Theories, Concepts, and Methodologies*: IGI Global.
- [8] Grimsley, M., & Meehan, A. (2007). e-Government information systems: Evaluation-led design for public value and client trust. *European Journal of Information Systems*, 16(2), 134-148.
- [9] Harrison, T. M., Guerrero, S., Burke, G. B., Cook, M., Cresswell, A., Helbig, N., et al. (2011). *Open government and e-government: Democratic challenges from a public value perspective*. Paper presented at the Proceedings of the 12th Annual International Digital Government Research Conference: Digital Government Innovation in Challenging Times.
- [10] Harrison, T. M., & Sayogo, D. S. (2013). Open Budgets and Open Government: Beyond Disclosure in Pursuit of Transparency, Participation and Accountability. *The Proceedings of the 14th Annual International Conference on Digital Government Research*.
- [11] Hong, S. (2013). Who benefits from Twitter? Social media and political competition in the US House of Representatives. *Government Information Quarterly*, 30(4), 464-472.
- [12] Hong, S., & Nadler, D. (2015). *Social media and political voices of organized interest groups: A descriptive analysis*. Paper presented at the Proceedings of the 16th Annual International Conference on Digital Government Research.
- [13] Hood, C. (1995). The "New Public Management" in the 1980s: Variations on a theme. *Accounting, organizations and society*, 20(2), 93-109.
- [14] Janssen, M., Charalabidis, Y., & Zuiderwijk, A. (2012). Benefits, adoption barriers and myths of open data and open government. *Information Systems Management*, 29(4), 258-268.
- [15] Lane, J.-E. (2000). *New public management*: Taylor & Francis US.
- [16] Linders, D., & Wilson, S. C. (2011). *What is Open Government? One Year after the Directive*. Paper presented at the Proceedings of the 12th Annual International Conference on Digital Government Research, College Park, MD, USA.
- [17] Luna, D. E., Duarte-Valle, A., Picazo-Vela, S., & Luna-Reyes, L. F. (2014). *Assessing the impacts of digital government in the creation of public value*. Paper presented at the Proceedings of the 15th Annual International Conference on Digital Government Research.
- [18] Moore, M. H. (1995). *Creating public value: Strategic management in government*: Harvard university press.
- [19] O'Flynn, J. (2007). From new public management to public value: Paradigmatic change and managerial implications. *Australian journal of public administration*, 66(3), 353-366.
- [20] Obama, B. H. (2009). *Transparenc and Open Government: Memorandum for the Heads of Executive Departments and Agencies*. Unpublished manuscript.
- [21] Obama, B. H. (2011). *The Open Government Partnership: National Action Plan for the United States of America*.
- [22] Sigit Sayogo, D., Zhang, J., Pardo, T. A., Tayi, G. K., Hrdinova, J., Andersen, D. F., et al. (2014). Going beyond open data: challenges and motivations for smart disclosure in ethical consumption. *Journal of theoretical and applied electronic commerce research*, 9(2), 1-16.
- [23] Stoker, G. (2006). Public value management a new narrative for networked governance? *The American review of public administration*, 36(1), 41-57.
- [24] Williams, I., & Shearer, H. (2011). Appraising public value: Past, present and futures. *public administration*, 89(4), 1367-1384.
- [25] Wilson, S. C., & Linders, D. (2011). *The Open Government Directive: A Preliminary Assessment*. Paper presented at the iConference 2011.
- [26] Zhang, J., Luna-Reyes, L. F., Jarman, H., & Tayi, G. K. (2015). Information systems to support sustainable consumption and sustainable supply. *Information Technology and Management*, 16(1), 1-4.
- [27] Zuiderwijk, A., Helbig, N., Gil-García, J. R., & Janssen, M. (2014). Special Issue on Innovation through Open Data: Guest Editors' Introduction. *Journal of theoretical and applied electronic commerce research*, 9(2), i-xiii.
- [28] Zuiderwijk, A., Janssen, M., Meijer, R., Choenni, S., Charalabidis, Y., & Jeffrey, K. (2012). *Issues and Guiding Principles for Open Governmental Judicial Research Data*. Paper presented at the IFIP International Federation for Information Processing 2012.