

Smart Governance: A Roadmap for Research and Practice

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Abstract

In the early 21st century, societies and their governments around the world have been meeting unprecedented challenges, many of which surpass the capacities, capabilities, and reaches of their traditional institutions and their classical processes of governing. Among these challenges are the need for an accelerated transition of the global economy from its current fossil fuel basis to renewable energies, the so-called post-carbon era also known as the third industrial revolution, the containment and reduction of government spending and debt financing, the increasing rapidity of market changes, and the expanding lag of timely interventions via traditional lawmaking and government action. While upholding the proven principles of Western democracy, democratic self-governance in 21st century market economies apparently needs to develop new institutional formats and novel mechanisms for staying abreast with the systemic dynamics of a tightly interconnected global society. We claim that actionable and omnipresent information along with its underlying technologies are substantial prerequisites and backbones for developing models of smart (democratic) governance, which foster smart, open, and agile governmental institutions as well as stakeholder participation and collaboration on all levels and in all branches of the governing process. We present and discuss an agenda for research and practice, which advances the concept of smart, open, and participatory government of the 21st century.

Keywords: electronic government, smart government, smart governance, open government, transparency, participation, smart city, smart grids, electric mobility, ubiquitous high-speed connectivity, open data, big data, security and safety, administrative modernization

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1 Introduction

This article is conceptual in nature, and its purpose is to spark interest and help shape an ongoing dialogue on the complex subject matter of smart governance as a foundation to smart, open, and participatory government among and between scholars and practitioners. In so doing, this contribution is rooted in the domain of electronic government research (EGR), which over that past decade and a half has produced a sizable and highly regarded body of academic knowledge of significant relevance to practice. EGR is a multi-disciplinary strand with contributions from information science, information systems research, public administration, computer science, and other disciplines. Whereas the dedicated scholarly community of EGR has grown into 4-digit numbers, this article tries to reach beyond this community and also interest scholars from adjacent and other information-related fields.

In the early 21st century, governments and publics have been confronted with several unprecedented challenges, which are complex and intertwined [61]:

- (1) The *Third Industrial Revolution* has begun to convert the basis of industrial activity from fossil fuels to renewable energies [57]. At the same time and in order to cope with increasing demand, the uses of primary energies need to become far less wasteful than during the waning carbon era. Fundamental part and strong co-driver of the Third Industrial Revolution is the concurrent informational revolution, which facilitates the immediate availability and ubiquity of actionable

information via computer-mediated networks in all aspects of economic activity as well as in public and private life [61] leading to highly effective and efficient economic exchanges and societal interactions.

- (2) The *Rapidity of Change and the Lack of Timely and Effective Intervention* have caused several severe global and regional crises, for example, the 2008 financial meltdown in the United States of America. These crises have proven to surpass the steering, intervening, and counterbalancing capacities of national governments by a significant margin. The old mechanisms of relatively slow regulation and deregulation as well as the deliberately moderate processes of making, enforcing, and interpreting the law have proven less than ever effective when faced with rapid changes and developments [61]. New, more intelligent, and regionally/globally effective mechanisms need to be found, which preserve the principles of democratic process but nevertheless cope with the pace of change [61].
- (3) *Expansive Government Spending* and *Exorbitant Public Debt Financing* have been blemished for eroding the stability and long-term sustainability of whole societies and nation states [25, 69]. While so far no evidence has been produced that the two phenomena are causally linked, taken together they present a huge challenge for a large number of nation states curtailing or even impeding the traditional ways of public policy making via debt-financed spending. The inevitable structural reform of public finances, however, has come at the oddest point in time possible given the other challenges, and it seriously complicates the search for adequate solutions.

While interacting and when left unaddressed, these three challenges would most likely produce highly negative impacts on societal wellbeing and the collective and individual qualities of life in the 21st century. In some nations, exploding health care costs and rapidly aging populations might even exacerbate the situation. Before this background the question has been raised, how these multi-level challenges can be addressed, one at a time as well as conjointly due to their interdependencies and interactions [61].

With this article, we do not claim being capable of charting out potential paths to a comprehensive solution to a highly complex and dynamic problem. However, we assert that a reformed model of democratic self-governance, which rests on the principles of Western democracy and maintains its tradition, will play a major role in finding such paths. Moreover, a reformed model of Western democracy is both necessary and feasible. We call them the *New Models of Participation* and the *Evolution of Smart and Open Government* in the 21st century. As key facilitators of these new models of participation and smart and open government we envision ubiquitously available, symmetrically shared, and immediately actionable information based on and provided by modern information technologies allowing for *smart* (democratic self-) *governance* of society. On a high level of abstraction our research questions, hence, read,

- (RQ #1) What are elements of smart governance and smart and open government, and how might they interact?

Based on the results of RQ#1, it follows,

- (RQ #2) What research and practice agenda would logically support the development of smart governance models as well as the evolution of smart and open government?

In the following, we first briefly review the extant literature on smart governance and smart and open government. Addressing RQ#1, we then discuss the elements of smart governance and their interactions. Based on this discussion, we present a research and practice agenda capable of advancing the evolution of smart and open government. Finally, we present our conclusions and aims of future research.

2 Literature on Smart Governance and Smart and Open Government

Despite the claim that the first Obama administration in 2009 was first to introduce the notion of *open government*, the concept was presented and discussed elsewhere far earlier [11, 19, 20]. In the US, major legislative elements of open government were put in place as early as in the mid-1960s, for example, the Freedom of Information Act of 1966 with its various amendments over the decades including the Open Government Act of 2007. However, the Administration's open government initiative of 2009 marked a radical switch from reactive and lackluster information provisioning to proactive information sharing by the federal administration [42, 58, 64, 65]. This paradigmatic shift sparked the launch of numerous similar initiatives at local and State levels in the US as well as in other countries around the world [30]. It also reinforced the attention of academic scholarship as evinced by the greatly increased number of published studies on the subject ever since.

The aim of the initiative, which was formally enforced via an Executive Office directive, was to provide transparency to government decision-making, improve accountability, and foster collaboration and stakeholder participation [55]. Practically, the directive required from departments and agencies to make publicly available all unclassified government records in electronic form. However, it also requested from each department a detailed plan for collaboration with and participation of other stakeholders including businesses and citizens. Direct involvement and participation in government service provision and decision making were understood as integral nodes in a feedback loop that safeguarded against falling back into non-open government practices [50, 55, 64, 65]. The effects of such open government initiatives have been studied since, for example, [31, 34, 44, 46, 47, 50] including the metrics and processes for measuring the success of such initiatives [14]. In terms of participation, government-related social media and social networking studies have also mushroomed over the years since 2009, for example, [12, 13, 15, 16, 21, 28, 29, 35, 43, 48, 49, 67, 71], some of which, however, found the extent of influence from participation rather minute [35, 50].

Along with the notion of open government appeared the concepts of "lean" and "transformational" government, which integrated the ideas of third-party service co-provision, high-leverage of government funding via information and communication technologies (ICTs), and gradual service and process improvement via recurring experimentation [37]. "Doing more with less" [37] has become the mantra of budget-squeezed government agencies around the world, and electronic government practices in general have shown quite some potential for effectively supporting such ends [10, 17, 39, 60, 66].

In parallel and rather independently, another strand of practice and research dedicated to local electronic government has emerged that developed the notion of a *smart city* and in close conjunction with it *Smart City Government*. A smart city as an urban space would have the characteristics of a culture of innovation [32, 36, 52], a high quality of life also referred to as "livability," global competitiveness and attractiveness, security, and safety, as well as economic and environmental sustainability [7, 22]. A smart city would have a smart City government, which manages and implements policies towards those ends by leveraging ICTs and institutions and by actively involving and collaborating with stakeholders [7, 8, 51, 52]. Early empirical studies on smart city initiatives indicate that despite some peculiarities and differences between the initiatives the principles of open, transparent, and participatory government appear to be integral part of those initiatives [7, 8, 22, 51].

The earliest mention of the combined terms of *smart* and *government* that we were able to find dates back to a short World Bank report on civil service reform [54]. The term was also used without the introduction of a formal definition in a report on the computerization of government operations in the Indian State of Andhra Pradesh [68]. More recently, former US president Bill Clinton utilized the term in the presentation of his views on the future role of government [23]. Last, one of the core conferences in EGR, the Digital Government Society's dg.o 2013 conference was held under the motto of "From e-Government to Smart Government" (<http://dgo2013.dgsna.org>).

In contrast to these rather vague uses of the term, the concept of *smart governance* has received more attention and formal academic treatment. Smart governance, according to Wilke (2007, p. 165), “is an abbreviation for the ensemble of principles, factors, and capacities that constitute a form of governance able to cope with the conditions and exigencies of the knowledge society” [72]. The author further acknowledges that smart governance is about “redesigning formal democratic governance” while maintaining the historically developed democratic principles and a free market economy [72]. Smart government, hence, has to cope with (a) complexity and (b) uncertainty, and by so doing, has to (c) build competencies and (d) achieve resilience [72], the latter two of which have also been referred to as *smart governance infrastructure*, which is seen as an agglomerate of hard and soft elements such as norms, policies, practices, information, technologies, skills, and other resources [38]. When developing smart governance infrastructures, several key factors have been identified such as problem focus, feasibility/ implementability, stakeholders’ contributability, continued engagement, coordination, and access to open data and shared information [38].

In summary, so far the two concepts of smart governance and smart government have only been rudimentarily developed. While the former has recently caught some academic attention along with some foundational theoretical treatment, the latter has not been conceptually developed although component elements such as openness and transparency of government decision-making and actions, open information sharing, stakeholder participation and collaboration, leveraging government operations and services via intelligent and integrated technology use, as well as government’s role of facilitator of innovation, sustainability, competitiveness, and livability seem to converge to a unified concept of smart and open government. Obviously, also, smart government rests on the foundation of smart governance suggesting that both concepts are closely related. Neither one concept has been empirically studied in any comprehensive way. However, practitioners have begun employing in projects many elements of both smart governance and smart and open government. Henceforth, it appears adequate to focus academic attention to the further development of the two concepts, so to benefit both practice and academic discourse on the two interrelated phenomena.

As a reminder, this contribution is conceptual. That is, it pursues the aim of developing a clearer and expanded academic understanding of, in general, a phenomenon of interest, and in this case, how societal wellbeing and livability in the 21st century can be maintained before the background of three major and intertwined challenges portrayed above. In so doing, a concept paper connects related elements, which are already known or have already been proposed for study, and puts them into the particular context of interest explaining and discussing how the phenomenon can be studied in the given context, and why it is important to better understand it. As we asserted above, the evolution and active development of smart public governance and smart and open government are interdependent and appear as essential responses when addressing the three challenges to societal wellbeing and livability in this century. Along these lines, we next discuss the two research questions posed above.

3 Smart Governance and Smart and Open Government

3.1 What are the elements, and how might they interact (RQ#1)?

We follow Wilke (2007) that for meeting complexity and uncertainty, respective competencies need to be developed, and a resilient governance environment needs to be created [72]. Resilience has been defined as a “process linking a set of adaptive capacities to a positive trajectory of functioning and adaptation after a disturbance” [53], see also [18, 24]. In other words, the competencies need to be adaptive and capable of serving in a process of coping with complexity and uncertainty. Johnston and Hansen’s (2011) enumeration of infrastructural elements of smart governance (norms, policies, practices, information, technologies, skills,

and other resources) [38] provide further details of the process elements, which need to be adaptive in order to provide for resilience.

Relative to the overall goal (“Preserving and developing societal wellbeing and livability in the 21st century”) and the three challenges to reaching that goal (“third industrial revolution,” “rapidity of change and the lack of timely and effective intervention,” and “expansive government spending and exorbitant public debt financing”), we found evidence that eight select areas have been put into focus and are likely candidates for smart governance initiatives (for each area we briefly use examples, current issues, and key points from the German federal government and German research centers for illustration, although we could have likewise used sources from elsewhere):

1. *Budgeting/controlling/evaluating*. Example: Under the title “Growth-friendly consolidation” the German Federal Ministry of Finance details a multiyear approach of shrinking government spending while maintaining high levels of governmental investments in growth-related and future-oriented areas [9].
2. *Electronic government/administrative modernization/process streamlining*. Examples and issues: the German e-government (EGOV) law (eGovG) postulates simplified and reliable administrative processes, needs orientation, economic efficiency, ecological sustainability, modular and adequate ICT support, and a leading role in EGR [1, 4]; however, despite these high aspirations and its economic weight, Germany ranks only 17th in the most recent UN EGOV rankings [3].
3. *Security and Safety*. Examples: Responding to the sensitivities of the electorate, German governments at all levels have traditionally upheld relatively high standards with regard to data security, privacy, and data parsimony [40]. So far, the focus has been on secure and confidential uses data [5]. However, these practices might need review and reformulation in terms of open data initiatives (see below, 8.), with which they may create tensions.
4. *Infrastructure Overhaul and Ubiquitous High-speed Connectivity*. Examples and key points: Germany hosts a number of smart grid projects (in sectors such as energy, traffic, and everywhere gigabit Internet) [56]. The latter is badly needed, since the country ranks only 19th worldwide in terms of average Internet bandwidth [6].
5. *Electric Mobility*. Example: the German Federal government embraced the notion of electric mobility, which would convert individual traffic from fossil fuels to electricity in the long-term, relatively early [2].
6. *Participation and Collaboration*. Examples and key points: Social media and social networking uses; individual information services; active and individual involvement [5]; fostering individual contributions from citizens and showcasing the effects of contributions [1].
7. *Open Data / Big Data Provision and Use*. Examples and key points: Provision of accurate, comprehensive, and reliable information [5]; transparency of data uses; accounting for the effectiveness of participatory contribution [1]; currently, open data initiatives in Germany are only partial and selective [40].
8. *Open Government, Transparency, and Accountability*. Examples, issues, and key points: Although closely related to open data, open government goes beyond the mere provision of government data, it rather has to encompass a proactive involvement of stakeholders in the public decision making processes [45]. Transparency appears as a key to effective administration of the 21st century as well as to the legislative process [1]. An urgent need for significant research on the subject has been identified [45].

In summary, these eight areas seemingly address all three aforementioned challenges, at least to a mentionable extent: For example, all eight areas appear to either directly or indirectly address the challenges of the third industrial revolution, in particular, in the areas of infrastructure overhaul, ubiquitous high-

speed connectivity, electric mobility, and administrative modernization. The areas of strict budget controls and evaluation, transparency, and open data directly address the challenge of expansive government spending and debt financing whereas the challenge of rapidity of change and lack of timely and effective intervention is directly addressed in all areas except for electric mobility. Based on this understanding, we next turn to addressing the second research question.

3.2 What research and practice agenda would logically support the development of smart governance models as well as the evolution of smart and open government? (RQ#2)

When cross-tabulating the smart governance elements [38] with the eight areas of focus as presented in the previous section, a roadmap for both practice as well as for research emerges (see schematic Table 1 in the appendix). For space reasons, we refrain from presenting all fifty-six cells of the smart governance grid in detail but rather focus on a few for illustration purposes.

Norms. In the area of budgeting/controlling/evaluating, for example, new and smart standards need to be developed, and new and more intelligent budgetary algorithms need to be found and tested. As discussed elsewhere [61], current spending levels and debt financing schemes cannot be maintained. As the above quoted example of the German Finance Ministry shows, investments in select and promising growth areas at the right time and in volumes of critical mass might be one possible path. As a principle, while spending levels remain capped or reduced, sizable, continued, and focused investments are still made. The question, which cannot be answered as of yet, is to what extent and how long should focused investments be continued? Further, what are measures of success or effectiveness? Also, what are the consequences of divesting (or under-investing in other areas)? What are acceptable review cycles and review participants? How can smart norms be further developed or changed? Who decides? How and when is stakeholder input used? As an example for a highly unintelligent approach to the government spending/debt financing crisis, we name the sequestration approach, as it was practiced in 2013 fiscal year in the US. While the across-the-board 20-percent cut of the federal budget, in fact, significantly reduced the spending column of the balance sheet, it did so without any discrimination, leaving areas of strategic growth potential under-invested.

Policies. Smart policies have the characteristics of both sustainability and adaptability [33, 59, 70]. These two characteristics are critical when it comes to addressing the challenge of rapidity of change and timely and effective intervention. As outlined before seven of eight areas either directly or indirectly address this challenge. In the area of infrastructure overhaul and ubiquitous high-speed connectivity, policy obstacles may arise when traditional business models such as those of large energy providers or telecommunications providers are at stake, or even potentially disrupted. Internet providers in the US, for example, show little enthusiasm to use public grey channels on existing public fiber-optical and make available gigabit connectivity to the premises at lowest cost. It appears that some oligopolistic business models benefit from managing scarcity and shortage rather than from providing abundance of bandwidth [26]. Smart governance, and, in particular smart policymaking needs to strike a balance between protecting old business models and paving the path to coping with rapid change. What can be drivers and enablers for overcoming oligopolistic and monopolistic resistances to change? What coalitions can be formed to foster smart policies? How can the effectiveness of policies be monitored and measured? What are successful policies within smart governance? What models have been observed, and what lessons were learned? What are the elements of a smart policy development process? When do smart policies lose their effectiveness? As pointed out before, smart policymaking pertains to all areas, and shapes both the overall smart governance models as well as the institutional and administrative settings and enactments of smart and open government based on smart governance models.

Practices. Smart practices apply to all eight areas of focus. However, as an example, in the area of ICT-induced administrative modernization and streamlining, also more popularly referred to as electronic

government, a tradition of current-practice information sharing via practitioner exchanges or practice/academia exchanges has developed over the years (for example, via practitioner portals such as www.govloop.org or <https://www.nascio.org>). Such current practice-related exchanges would clearly also apply to smart practices. Furthermore, academic research has played an important role in influencing and shaping the evolution of electronic government through frequent exchanges as well as action research projects. This interaction between academia and practice will be equally important in the area of smart governance practices as well as practices of smart and open government. Both practice and academia would help identify, for example, what practices, if any, are characteristic for the development and realization of smart governance as well as for smart and open government? Further, what makes such practices smart? What practices can be transferred from one context to another? How can the effectiveness of smart practices be monitored and measured? What limitations do exist? This list of research and practice-related questions with regard to smart practices is, of course, not exhaustive.

Information. The kingpin of smart governance and its enactment in terms of smart and open government is shared, timely, and actionable information, which is fundamental in all eight areas of focus. Information sharing has been touted as quintessential for inter- and intra-governmental collaboration as well as for government-to-citizen and government-to-business interaction [27, 41, 63]. As pointed out above, timely and actionable information, once open and shared, also provides for transparency, accountability, and stakeholder participation. In that capacity, shared information is also the indispensable prerequisite for smart governance. Research and practice-related questions include: What are enablers and obstacles for information sharing? What quality of information is needed for enabling smart governance? How can context-relevant, timely and actionable information be distilled from an ocean of open big data? What information visualization approaches can be used, and how effective are they? What information-sharing policies are needed for enabling and maintaining smart governance? How can information asymmetries be detected? What information should be open, what should not be open, and why? What are acceptable balances between the need-to-know and individual privacy? What are the constitutional, legal, and practical limitations to government surveillance of global digital traffic, and how can those limitations, if any, be either overcome or enforced?

Information, Communication, and Other Technologies. ICTs and other related technologies have become core facilitators of the information revolution, which in itself is both the engine and the backbone of the third industrial revolution as discussed above. In the context of smart governance, ICTs and other technologies play highly critical roles as they technically facilitate the “smartness” of governance, and consequently, government. In that sense, they apply to and permeate all eight areas of focus. Their absence or malfunction, even temporary, can strip entire organizations and processes from regular functioning within the nick of time. ICT ubiquity and highest availability have become the normal case and expectation even in remote and barren environments. ICTs and other technologies have helped redefine and redesign traditional formats of process and structural organization. They have also made possible completely novel processes and structural formats. In smart governance, research and practice-related questions may include: What new processes and formats can be facilitated via ICTs and other technologies? What traditional processes and formats can be replaced, streamlined, and redesigned by the use of ICTs and other technologies? What are the impacts of such changes on the models of smart government and smart and open government, respectively? What are desired outcomes of ICT-induced changes, and what are undesired outcomes of such changes, and why? What are the policy implications of the accelerated proliferation of ICTs and other technologies?

Skills and Human Capital. Smart governance, which relies and rests on timely and actionable information as well as the underlying facilitating ICTs, requires human skills capable of bringing the component parts of smart governance into action and interaction. Besides technological savviness this necessitates the understanding of process, policy, and people when developing and maintaining models of

smart governance. Educational and developmental programs, hence, need to be integrative creating fused high-level literacy in technical areas and non-technical areas of academic and professional development alike. Smart governance can flourish when the old schism vanishes that divided the business side of an organization from its ICT side. Research and practice-related questions encompass: What sets of skills need to be developed and combined for enacting smart governance models and smart and open government? How frequently are educational and developmental updates to such skills necessary? What educational formats are most effective and economic? What are the necessary levels of investment in the development and maintenance of human skills? What are the measurable consequences of continued under-investment in the development and maintenance of human skills?

Other Resources. Beyond the identifiable components discussed above, smart governance might require additional resources in any area of focus, which may emerge along the lines of development and practice? The research and practice-related questions, hence, include: What other resource are necessary to develop and maintain models of smart governance? What are their characteristics, and how do they contribute to the overall outcome? Why are they important, and how critical are they? How can they be replaced or emulated, if inaccessible? How can they be identified ex ante?

In summary, when cross-tabulating the elements of smart governance with the areas of focus as addressed in early smart governance initiatives, it becomes clear that a whole host of research and practice-related problems need to be better understood. Academic research can effectively support the evolution of smart governance, and with it, smart and open government, in practice. Academic research can in particular accelerate the learning process and implementation by systematically sharing the results of studies across all elements of smart governance. This will predictably lead to sounder and more elaborated models of smart governance than when such initiatives are left to trial-and-error approaches in practice alone. Since quite a few smart governance initiatives are in their early stages, research, including (participatory) action research, should accompany such initiatives and should be funded as a integral part of smart governance as well as smart and open government projects.

In this context, we would like to point out that in applied research, in general, with EGR being no exception, a tendency was found to mostly focus on desirable and successful project outcomes [62]. However, confining the study of smart governance that narrowly runs the risk of neglecting important lessons learned from failure and undesirable project outcomes. Two types (A and B) have been identified for warranting scrutiny and study [62], see Figure 1. We propose to also focus research on smart governance/smart and open government projects with outcomes of type A (desirable/unsuccessful) and type B (undesirable/successful). As a case in point for a type B project outcome, the wholesale surveillance of Internet protocol-based global digital traffic by National Security Agency and other agencies elsewhere might be cited, although admittedly the assessment of this outcome's desirability or undesirability might vary depending on the stance of the beholder.

Project Outcome Matrix

	Desirable	Undesirable
Successful	Unproblematic Outcome	Problematic Outcome Type B
Unsuccessful	Problematic Outcome Type A	Unproblematic Outcome

Hans J. Scholl, 2005

Figure 1: Problem Outcome Matrix – Type A and Type B Outcomes are understudied

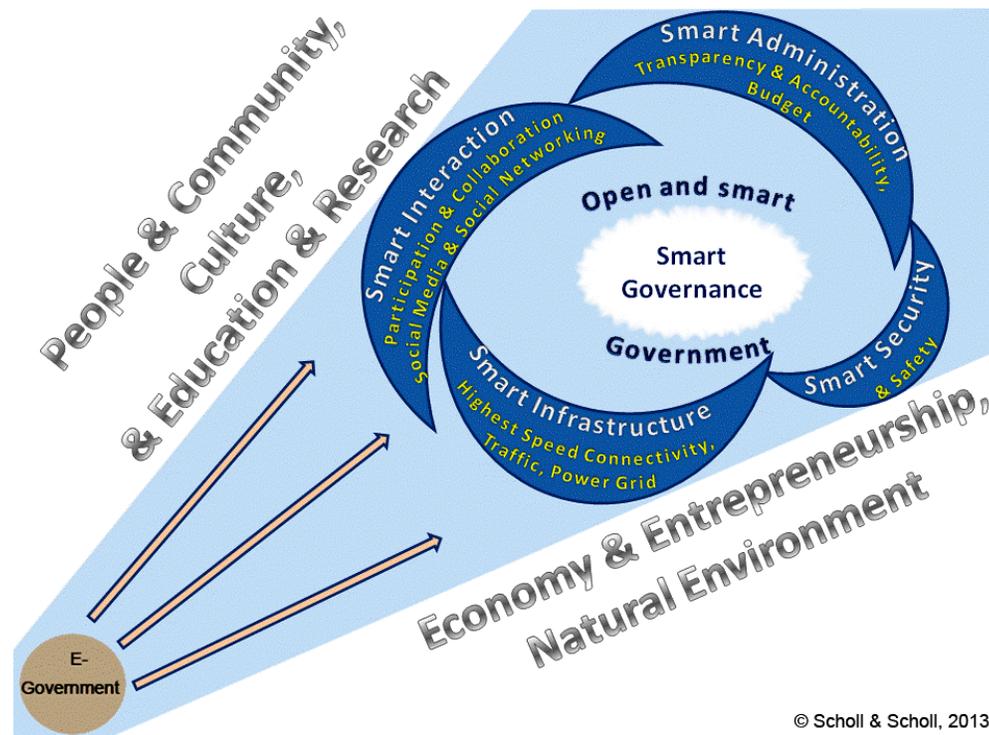
4 Conclusion and Future Research

It has been the object of this article to make the case and present a roadmap for the study of the phenomena of smart governance as well as smart and open governance as an enactment of smart governance in practice. As a concept paper, this contribution aimed at sparking interest and at inspiring scholarly and practitioner discourse in this area of study inside the community of electronic government research and practice, and beyond. The roadmap presented here comprises and details seven elements of smart governance along with eight areas of focus in practice.

Smart governance along with its administrative enactment of smart and open government, it was argued, can help effectively address the three grand challenges to 21st century societal and individual well-being, which are (a) the Third Industrial Revolution with the information revolution at its core, (b) the rapidity of change and the lack of timely and effective government intervention, and (c) expansive government spending and exorbitant public debt financing. Although not seen as a panacea, it was also argued that smart governance principles could guide the relatively complex administrative enactment of smart and open government more intelligently than traditional static and inflexible governance approaches could do.

Since much of the road ahead metaphorically speaking leads through uncharted territory, dedicated research is needed that accompanies projects in this area and evaluates them. Research could further be embedded into practical projects providing for fast and systematic learning. We believe that such embedding of research into smart governance projects should become an integral part of smart projects' agendas.

Finally, in Figure 2 we summarize the context and trajectory as well as the main areas of the smart governance and smart and open government evolution: Emanating from traditional electronic government research, smart governance research will encompass broader fields of interest such as smart administration, smart interaction with stakeholders, smart security and safety, and smart infrastructures, which in turn are enclosed in the larger contexts of 21st century society and environment.



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Figure 2: The Trajectory from E-Government Research to Smart and Open Government Research

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8 Appendix

	Budgeting/ controlling/ evaluating	Electronic government/ administrative modernization/ process streamlining	Security and Safety	Infrastructure Overhaul and Ubiquitous High- speed Connectivity	Electric Mobility	Participation and Collaboration	Open Data / Big Data Provision and Use
Norms							
Policies							
Practices							
Information							
ICTs and Other Technologies							
Skills and Human Capital							
Other resources							

Per Focus Area the Elements of Smart Governance Need to be Addressed in Detail

Table 1: Areas of Focus (columns) and Elements of Smart Governance (rows)