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A structured analysis of e-government studies: Trends and opportunities

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ABSTRACT

E-government involves the use of information and communications technology to facilitate government interaction with citizens, employees, businesses and other governments. E-government studies provide a platform to examine prior developments, and explore future opportunities in the field. This paper presents a theoretical model for the analysis of e-government studies and further uses a bibliometric analysis to examine constructs such as theoretical perspectives, methods, and units of analyses. We examine current trends in e-government research, and discuss emerging opportunities.

1. Introduction

The primary function of e-government is to support communication between governments and citizens via web-enabled computer technologies (Evans & Yen, 2006). E-government uses technology to support a government's interaction with multiple stakeholders including employees, businesses, and other government agencies. E-government projects can be differentiated into categories based on the stakeholder involved. The four main categories of e-government are government to citizen (G2C), government to business (G2B), government to employee (G2E), and government to government (G2G). Each of the above categories highlights the specific stakeholder that interacts with a government. E-government can be classified based on primary stakeholders as described above, or based on different levels of government such as local, state, or federal. Other global classifications for e-government can occur at levels such as municipal, county, country blocs, or regions.

The mid 1990s witnessed the dawn of e-government, essentially driven by growth and development of internet-based technologies and electronic commerce. Countries such as the United States, the United Kingdom, and Australia lead the way in facilitating more immediate and effective communication between a government and its constituents (Lee, Tan, & Trimi, 2005). The twenty-first century gave rise to increased attention to the transformative powers of e-government. Terms such as e-voting, e-governance, e-democracy and m-government are emerging as key evolutionary constituents in the e-government domain. Naturally, as research moves forward in this inter-disciplinary field many new and challenging questions arise.

This study examines the current state of e-government studies, specifically in the areas around research methods and contextual variables that affect the projects. These contextual variables include number of methods used, units of analysis, region of study, and focus of the study. These parameters provide an empirical context to evaluate the state of e-government studies. The primary research question in this study focuses on research methods in the area of e-government. An exploration of what methods and underlying methodologies are being used in e-government can serve to extend the body of knowledge in the field. Insights from the past can provide direction and guidance to future studies in the field. The secondary research question examines what other contextual constraints have defined e-government studies in the period 2005–2010. As a rich emerging area for research and practice, e-government studies utilize a variety of theories, concepts, and methods in the pursuit of solving unanswered questions.

A study of 110 peer reviewed articles acquired from different journals in the e-government literature found that 24% of the studies focused on conceptualization, 18% on technology diffusion, 34% on e-service, and 25% on e-democracy (Andersen & Henriksen, 2005). This indicates that almost one quarter of all e-government studies have focused on conceptual modeling. Another study using a single journal as its source for analysis also found that the majority of e-government papers were conceptual in nature, followed by the use of case studies (Dwivedi, 2009). A third study examined 73 articles in the period 1999–2005 to produce a multidimensional model to identify determinants, characteristic, and results of e-government (Luna-Reyes, Gil-Garcia, & Romero, 2012). The past focus on theory building papers might be directly attributed to the youthfulness of the e-government field. The earliest noted reference of the term "e-government" dates back to only 1997 (Heeks & Bailur, 2007). As part of the evolutionary development of the field a punctuated analysis of e-government studies can provide insights about the direction(s) that the field is moving in.

This paper provides a time sensitive checkpoint analysis on the state of e-government research. This self-evaluation can be a very useful tool in an emerging discipline such as e-government. Following the

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introduction we present an overview of the current state of e-government. This is followed by a theoretical model to empirically test the two related research questions listed below:

1. What are the primary research methods and methodologies in current e-government research?
2. What are the contextual factors that constrain e-government research?

This is followed by an explanation of the methodology employed in this study. The results, discussion, research implications, limitations and recommendations follow. We end the paper with a succinct conclusion.

2. The current state of e-government

E-government is an emerging and developing field. From a practical perspective many governments have identified the value of interacting electronically with key stakeholders, and undertaking a variety of e-government projects. These projects are identified at a variety of levels. A recent study by the United Nations has shown that many emerging economies are making positive strides to develop their e-government capabilities (UNPAN, 2008).

Given global financial challenges funding of e-government projects may have been cut or modified due to limited funds. Countries and regions that are facing financial austerity and political upheavals may also make strategic decisions regarding e-government project funding. As such, e-government is one of the unique fields with both real time practical and research implications. One question in this field seems to be whether practice is driving the research or is research driving the practice?

From the research side of the equation there is no single dominant theme in e-government. The field is as diverse as possible. A mere inventory of where e-government research is being conducted ranges from Business Schools, Political Science Departments, Public Policy Groups and Social Engineers. This fact in itself sheds some light on the difficulty in capturing a clear path of where the discipline is going, or what factors are driving and affecting research foci.

3. Theoretical framework

This study is framed along two theoretical perspectives. The first part of the theoretical framework discusses the underlying philosophical concepts used to classify research studies. The second theory framing this study is the bounded rational which identifies that decision making, such as selecting the elements of a research project, occurs in a constrained environment and does not necessarily result in the selection of the optimal decision.

For a research proposal four distinct elements exist: epistemology which refers to the origin of knowledge; theoretical perspective which refers to the philosophical basis for research; methodology which refers to the strategic plan for the research; and methods which are the specific procedures followed (Crotty, 2003). Specific examples for each of the four listed categories are: epistemology — objectivism, constructionism; theoretical perspective — positivism, interpretivism; methodology — experiment, survey; methods — questionnaire, case study (Crotty, 2003).

From a research perspective the selection of a research method is largely dictated by a set of research questions. Methods refer to the specific tools that are used for data collection, while the methodology is a broader more encompassing construct that identifies both an overall plan and the reasoning behind the selection of the methods. Epistemology refers to the nature and origin of human knowledge, while the term ontology deals with the nature of being (dictionary.com, 2009). For the purposes of this study, we exclude a discussion on ontology due to its metaphysical realm and initiate the discussion from the point of epistemology. As examples of epistemology, objectivism sees the world as holding a set of unmistakable truths, while constructionism sees multiple perspectives of the world based on the meanings that people discover (Crotty, 2003).

The quantitative–qualitative dichotomy is ever present in research discussions. Crotty (2003) states that the discussion between quantitative and qualitative research does not occur at an epistemology or theoretical perspective level, but instead at the method level. Crotty (2003) further argues that there is limited justification for the association of quantitative methods with positivism, and the association of qualitative methods with interpretivism. In fact, it is entirely feasible to conduct a positivist case study (Weber, 2004; Yin, 1994). However, researchers who employ quantitative methods typically have a positivist perspective originating from objectivism; while those who employ qualitative methods typically have a constructivist perspective; and lastly there is a third group of researchers who employ mixed methodologies incorporating both quantitative and qualitative methods (Teddlie & Tashakkori, 2009). This study focuses on the background of research studies conducted in the field of e-government.

Bounded rational indicates that the rational decision making process is constrained by both 1. limited search and 2. inadequate information and control, that results in a satisfying rather than optimal outcome (Hellriegel & Slocum, 2008). For any research study, the researchers make decisions about many different elements including the selection of appropriate methods, units of analyses, duration of study, and types of data. Based on the bounded rational theory many of the elements that make up the research study are selected in a constrained environment and the end result is the choice of an acceptable alternative, and not necessarily the optimal one. Additionally, the researcher's underlying theoretical perspective can drive the strategic planning for a research project and ultimately the selection of appropriate methods and other tools needed to complete the study. As with any research project the researcher is further constrained by various factors such as time, money, access to information, knowledge of subject, support and other tangible and intangible variables.

4. Methodology

One way to effectively analyze the methodological preferences and supporting contextual factors in e-government research is to conduct a structured analysis of published articles via a bibliometric study. Bibliometric studies examine artifacts such as research notes, conference proceedings, journal articles, and databases to collect and analyze documents on a particular subject area (Schneider & Borlund, 2004). Some bibliometric studies use specific bibliometric databases and citation databases for data collection. To minimize the inherent challenges of the lack of consistency of findings, and to counter the inclusion/exclusion of specific articles, a broad enough time frame along with multiple data sources should be considered when utilizing a bibliometric research method (Frandsen & Nicolaisen, 2008). Consequently, this study focuses on the trends in the time period 2005–2010.

The information systems literature contains several instances of classifications for research methods (Vessey, Ramesh, & Glass, 2005). Vessey et al. (2005) identified nineteen different research methods that were applicable to studies housed under the broad umbrella of computing disciplines. This research will not characterize or attempt to characterize the underlying epistemology of any of the studies that are examined. The primary reason for this exclusion is that authors do not always clearly articulate their perspective in a single paper, and this would require unnecessary speculation and conjecture. Titah and Barki (2006) used several sources including varying journals and databases to examine e-government studies (Titah & Barki, 2006). A more recent study used a single journal as the data source to analyze its publication of e-government articles (Dwivedi, 2009). The articles sited above indicate that both single and multiple sources have been used in prior studies to evaluate a single research topic.

This study uses a single data source for the analysis of research methods in the area of e-government during the period 2005–2010. Government Information Quarterly (GIQ) is selected as the single source for analysis based on its consistent representation of timely and relevant articles in the field of e-government. Further, GIQ has been identified as a reputable source for collecting data on e-government research (Titah & Barki, 2006). Additional justification for the selection of GIQ includes its impact factor and its ranking in the top fifteen of Information Science and Library Science Journals (Journal Citation Reports, 2011).

For each article in this study, a set of nine variables were examined. The variables are listed below and described in more detail in the subsequent paragraphs. The following variables were examined:

1. Theoretical perspective
   A theoretical perspective refers to how the individual "makes sense of the world" and Crotty (2003) has identified five major categories: positivism, interpretivism, critical inquiry, feminism and postmodernism. In the field of information systems positivism and interpretivism have dominated the research literature. Both approaches seek to provide a better understanding of the world, with positivist more inclined to use methods such as laboratory experiments, field experiments and surveys; and interpretivists more inclined to use case studies, ethnographic studies and phenomenographic studies (Weber, 2004). For the analysis of e-government research three dominant theoretical perspectives: positivist, interpretive and descriptive have been used in the past (Dwivedi, 2009). This study will use a similar approach for the classification of theoretical perspectives.
2. Research method
   Table 1 lists the classification used for identifying research methods. The methods identified for this study are mainly adopted from Dwivedi (2009). Twelve methods are listed with an added thirteenth variable identified as "Other" if it cannot be classified into any of the above groups. The "Not sure" variable was used as a wild card to capture any instances where a clear research method is not discernible.
3. Number of methods used
   In some instances a research study employed more than one method and that information was documented as well. Multiple methods are often used to capture data from multiple sources as well as provide a foundation for triangulating data to elicit results from varying perspectives.
4. Unit of analysis of study
   For this study to examine the unit of analysis, a combination of 12 constructs from Vessey et al. (2005) and Dwivedi (2009) was used. Table 2 lists the codes used for this construct.
5. Region of study
   The Association for Information Systems (AIS) has classified the globe into three primary regions. The regions are listed below as:
   - Region 1: 1A — North America; 1B — South America/Central America/Caribbean
   - Region 2: 2A — Europe; 2B — Middle East; 2C — Africa
   - Region 3: 3A — Asia; 3B — Australia/New Zealand.
   [http://home.aisnet.org/displaycommon.cfm?an=1&subarticlenbr=16].
   For each paper the country that was the focus of the study was recorded. In instances where the paper was purely a conceptual study, or there was no reference to a particular country or region, this variable was identified as not applicable, and represented with the letter code NA. This study also included an additional category to identify studies that spanned multiple regions and presented a global perspective. In summary the analysis used nine different values to classify region: 1A, 1B, 2A, 2B, 2C, 3A, 3B, NA and global.
6. Type of data
   Type of data focused on whether primary or secondary data was used in the study.
   If the paper is purely a conceptual model, the option of "No data" was used. Consequently the coding method used for type of data was: 1. Primary, 2. Secondary, and 3. No data. In instances where the study employed multiple types of data, example both primary and secondary, that information was also recorded.
7. Area of focus
   Area of focus captured the primary topic identified in the paper. To capture this variable a short descriptive term was used. There were no predetermined categories used to capture this data.
8. Year (issue and volume)
   The year, volume and issue of each article were recorded. Only regular articles were included in this study. This was done to reduce any sampling bias associated with special issues that focused specifically on topics in/or related to the field of e-government.
9. Authors
   Names of all authors for each publication were captured. For each paper, the country of the first author was also recorded. To find the region of the first author we looked at the name of the institution that the author was affiliated with, and used the AIS classification to identify the region of the author.

Table 1
Research methods.
Source: Adapted from Dwivedi (2009).

1	CL	Conceptual/library research
2	SU	Survey
3	CI	Case study/interview/semi-structured
4	CV	Commentary/viewpoint
5	CA	Case analysis
6	DE	Design
7	OB	Observation
8	SD	Secondary data analysis
9	SC	Structured case method
10	WA	Workshop analysis/focus group
11	LH	Laboratory experiment (human subjects)
12	NS	Not sure

Table 2
Units of analysis.

1*	SOC	Society
2*	PRO	Profession
3*	INT	Inter-organizational context
4*	OC	Organizational context
5*	PR	Project
6*	GP	Group/team
7*	IN	Individual
8*	AC	Abstract concept
9*	CS	System
10*	CE	Computing element — program, component, algorithm
11+	IDT	Industry
12+	COU	Country

Sources: *Vessey et al. (2005) and +Dwivedi (2009).

5. Results of analysis

All articles published in GIQ published from January 2005 through December 2010 were examined. A total of 203 articles were published in the regular issues of the journal. This number excluded all articles that were published in special issues of GIQ. After identifying the 203 regular articles, we used a structured approach to identify articles under the e-government umbrella. We searched the title, abstract and keywords of each article for the following terms: electronic government, e-government, egovernment, e-governance, egovernance, and government websites. Other search terms such as e-voting and e-participation were initially included, but they were subsequently dropped because of repeated overlap with the initial list of search terms.

Of all the regular articles published in the aforementioned time period, 103 of them were related to the theme of e-government. This indicates that during the 2005–2010 period approximately 50.7% of regular articles published in GIQ examined and/or discussed concepts related to the field of e-government. The 103 articles represent the sample set that was used for further analysis in this study. Table 3 shows the number of e-government studies classified by year. The results indicate a steady increase in the number of studies focusing on e-government with a peak of 27.2% of the studies in the year 2009.

Table 4 shows the frequency of the three different theoretical perspectives examined in this paper, further indicating that approximately 80% of the studies examined utilized a positivist perspective.

For each article we examined the specific research method(s) used, as well as the number of different methods employed in the study. This allowed us to capture information about the percentage of studies in our sample that used mixed methods. Table 5 shows that the majority of studies (79.6%) used a single research method, and the rest of the studies used either two or three methods. The data also revealed that there were no studies that used more than three different research methods.

Of the 103 studies examined, we found that a total of 131 individual research methods were used. This is derived from the 82 studies that used one method (82 × 1), combined with the 14 studies that used two methods (14 × 2) and the 7 studies that used three methods (7 × 3). Table 6 examines the frequency of the 131 methods counted. The top four research methods in order from most frequent to least frequent are: 1. CL — conceptual library research (26.7%); 2. SD — secondary data analysis (22.1%); 3. SU — surveys (20.6%); and 4. CI — case study/interview/semi-structured (16%).

In the area of e-government, research studies can span a variety of perspectives depending on the unit of analysis. For each study we identified the unit of analysis, with results illustrated in Table 7. The majority of studies (26.2%) examined concepts such as evaluating e-governance (Potnis, 2010); digital divide and e-government (Helbig, Gil-García, & Ferro, 2009); and assessment of e-government (Esteves & Joseph, 2008). The second most frequently examined unit of analysis was the country level (19.4%) followed by the societal level (18.4%).

The next variable examined was the region of the study. In addition to the regions identified by AIS, we included NA for studies where no regions were identified, and global for studies that examined data from around the world. Two of the studies in the sample covered two regions, and as a result the sample size for regions increased from 103 to 105. The results of the regions of studies are illustrated in Table 8. The majority of e-government studies are occurring in Europe, North America, and Asia.

This study also examined the types of data that are most frequently used in e-government studies. Of the 103 articles examined 36.9% used only primary data; 23.3% used only secondary data; 10.7% used both primary and secondary sources of data; and lastly 29.1% percent of the studies did not contain data.

Additional descriptive statistics were examined in this study, such as the number of authors per paper and the main topic(s) covered in the study. The majority of the papers examined (75%) consisted of either two or three authors. Interestingly, none of the papers in the sample had more than four authors, with only 5.3% of papers having four authors. The topics covered in the e-government studies were very diverse and no single theme emerged from this study.

Table 3
Number of studies by year.

	Frequency	Percent	Valid percent	Cumulative percent
2005	12	11.7	11.7	11.7
2006	7	6.8	6.8	18.4
2007	16	15.5	15.5	34.0
2008	15	14.6	14.6	48.5
2009	28	27.2	27.2	75.7
2010	25	24.3	24.3	100.0
Total	103	100.0	100.0	

Table 4
Frequency of different theoretical perspectives.

	Frequency	Percent	Valid percent	Cumulative percent
1 — positivist	82	79.6	79.6	79.6
2 — interpretive	14	13.6	13.6	93.2
3 — descriptive	7	6.8	6.8	100.0
Total	103	100.0	100.0	

6. Discussion of findings

The discussion of this paper focuses on explaining findings along four main dimensions: 1. dominance of positivist theoretical perspective; 2. representation of mixed method studies; 3. association between methods used and types of data; and 4. regional focus of studies. The first part of the discussion pertains to the relatively high percentage of studies that demonstrated a positivist theoretical perspective. A paper that presented a theoretical model with a set of propositions or untested hypotheses was classified as positivist, instead of purely descriptive since it showed the underlying perspective of the authors. Specifically, one such paper in the study presented a conceptual model for the development of broadband in e-government (Trkman & Turk, 2009), and illustrated the model through a list of hypothesis. This type of paper would be listed as positivist and may help to provide additional explanation about the prevalence of positivist studies in the sample. Further, at least one article in the sample set used a positivist case study with a set of tested hypotheses (Luk, 2009), adding to the larger count of studies showing a positivist theoretical perspective.

The diversity of topics in e-government lends itself to diversity of methodological applications, and in particular the use of mixed methods. Interestingly, a little over 20% of all articles examined in this study used two or more methods. A mix of methods can align different elements of an e-government project into a single harmonious entity. Synergy occurs when different elements are combined together resulting in a single coherent component (Senge, 2006). Through a combination of different methodologies, synergy across the various interconnected topics in e-government is possible and can provide deeper insights into the field as a whole. For example, a mixed method approach can combine an explanation and a description of the diffusion of a specific e-government technical innovation.

Moreover, e-government projects consist of both technical and behavioral components and are essentially socio-technical systems that perform optimally when there is a synergistic fit between the technology and the organization. In e-government, the organizational component can be complex because of the underlying political and economic factors that can directly impact a project's staffing, budgeting, development, implementation, and maintenance. Both quantitative and qualitative methods can be used in the same study to better understand the complex and dynamic nature of e-government. One recent e-government study first used statistical techniques to collect data from e-government websites and then used the statistical results as input for two qualitative case studies (Gil-Garcia & Pardo, 2006). A second study used empirical data along with a case study to understand e-government project management (Ke & Wei, 2006). Mixed

Table 5
Number of research methods used.

	Frequency	Percent	Valid percent	Cumulative percent
1 method	82	79.6	79.6	79.6
2 methods	14	13.6	13.6	93.2
3 methods	7	6.8	6.8	100.0
Total	103	100.0	100.0	

Table 6
Frequency of research methods used.

		Frequency	Percent	Valid percent	Cumulative percent
Valid	CA	1	.8	.8	.8
	CI	21	16.0	16.0	16.8
	CL	35	26.7	26.7	43.5
	DE	1	.8	.8	44.3
	LH	3	2.3	2.3	46.6
	OB	8	6.1	6.1	52.7
	OT	2	1.5	1.5	54.2
	SC	2	1.5	1.5	55.7
	SD	29	22.1	22.1	77.9
	SU	27	20.6	20.6	98.5
	WA	2	1.5	1.5	100.0
	Total	131	100.0	100.0	

method e-government studies, though currently used less frequently than single method studies, highlight their applicability and potentially positive contributions to the field.

Arguably, e-government is an ideal field for the application of mixed methodology projects, because of the diverse underlying disciplines such as information systems, management, and public administration. Mixed methods can generate more rigorous insights and richer explanations and interpretations of the findings than a study relying on a single method (Cao et al., 2006). Combining quantitative and qualitative methods in the same study is sometimes referred to as "triangulation" and is beneficial for several reasons including expansion of the scope of the study, emergence of new ideas, and complementary perspectives within the study (Creswell & Plano Clark, 2007). Even though there are clear benefits to using multiple methods in e-government research, challenges such as the length of time and resource availability can thwart the use of mixed methods.

As an emerging field, conceptual papers provide a foundation for theory building. E-government studies can also utilize existing data repositories from different governmental and non-governmental agencies that are publicly available. The availability of such data may explain the reason for almost 25% of our sample studies using secondary data sources. Additionally, since one of the primary goals of e-government is to provide better access and services for citizens, surveys can be useful tools for capturing necessary feedback and opinions from citizen participants.

The findings of this research indicated that the focus regions for e-government studies were Europe, North America and Asia. This information is not surprising and consistent with the regions of the world that have had more aggressive adoption of e-government initiatives. In both 2008 and 2012, the regions of the world with the highest levels of e-government readiness in rank order were Europe, Americas, and Asia (UNPAN, 2008, 2012). However the findings of this study do highlight an opportunity for research studies that focus on regions such as the Middle East and Africa to add to the existing e-government dialog.

Table 7
Occurrence of different units of analyses.

	Frequency	Percent	Valid percent	Cumulative percent
AC	27	26.2	26.2	26.2
COU	20	19.4	19.4	45.6
CS	7	6.8	6.8	52.4
GP	1	1.0	1.0	53.4
INT	14	13.6	13.6	67.0
OC	11	10.7	10.7	77.7
PR	3	2.9	2.9	80.6
PRO	1	1.0	1.0	81.6
SOC	19	18.4	18.4	100.0
Total	103	100.0	100.0	

Table 8
Regions examined in e-government studies.

		Frequency	Percent	Valid percent	Cumulative percent
Valid	1A	20	19.0	19.0	19.0
	1B	1	1.0	1.0	20.0
	2A	23	21.9	21.9	41.9
	2B	6	5.7	5.7	47.6
	2C	5	4.8	4.8	52.4
	3A	18	17.1	17.1	69.5
	3B	3	2.9	2.9	72.4
	Global	2	1.9	1.9	74.3
	NA	27	25.7	25.7	100.0
	Total	105	100.0	100.0	

7. Implications of study

Three main trends emerged from the results and discussion of this study. The first trend is that almost 50% of e-government studies are either conceptual or rely solely on secondary data sources for analysis. This represents an opportunity for the inclusion of more studies involving primary data sources. Notably, primary data acquisition is usually more expensive and takes more time to acquire than secondary sources. Further access to primary data sources through methods such as interviews, focus groups and surveys may be a limiting factor for researchers. Overall, researchers who are able to circumvent some of the inherent challenges associated with primary data collection, have an opportunity to enrich the field of e-government.

The second trend that emerged from this research focused on the geographic location of the studies. As mentioned earlier in the paper, Europe, North America and Asia provided the primary focus of the published research studies examined. Opportunities therefore exist for more research in regions such as South America, the Caribbean, Africa, and the Middle East. Recent studies on e-government focused in these regions include: e-government adoption in Latin America (Lau, Aboulhoson, Lin, & Atkin, 2008); e-government development in the Caribbean (Joseph & Jeffers, 2009); participatory governance in South Africa (Twinomurinzi, Phahlamohlaka, & Byrne, 2012); and e-government projects in Iran (Sharifi & Manian, 2010). These studies show a small sample of the emerging e-government research in regions that are under-represented in the current e-government literature.

The third trend indicates that there is no specific topic that dominates e-government research. This is a refreshing finding, and indicates that there is a huge diversity of topics in the field. The opportunity here is to continue to expand the body of research, based on the existing foundation. Researchers can apply some of the theoretical models presented and test them with different data sets, in different environments.

8. Limitations and recommendations

This study examined a snapshot of articles published in the field of e-government. As a result it may be difficult to extrapolate these findings and make general comments about the entire field of e-government research. A more comprehensive approach would include articles from a wider variety of sources such as additional journals, databases, and conference proceedings. The study also focused on a six year time period, and a wider time frame can provide a larger more inclusive set of articles. Thirdly, the underlying search terms used to identify relevant e-government studies in this article, may have also inadvertently omitted relevant papers.

A future longitudinal study can be conducted to compare and contrast research practices and trends in the field of e-government. Further, a comparative interdisciplinary study can also be conducted to determine if patterns of research in the field of e-government converge with or diverge from other related disciplines.

9. Conclusion

The field of e-government is relatively new and presents a variety of diverse research opportunities. There are many technical, social, economic, organizational, and political factors that impact the development of e-government projects. From the rich tradition of diverse fields, diverse theories and diverse research streams, it would seem myopic to be restricted to specific philosophical views in the area of e-government. Researchers in e-government would be remiss not to embrace diverse theoretical perspectives, methods, units of analyses, and more. Research in the field of e-government, as with most other disciplines occurs in an environment constrained by various factors, resulting in sufficing decisions. Ultimately, the goal of research is to persist in spite of seemingly insurmountable boundaries and advance the field for the benefit of both researchers and practitioners.

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