

Perspectives on e-Government Project Implementations and Impacts

A Critical Literature Review

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ABSTRACT

There is little doubt that e-Government initiatives are becoming increasingly important, especially in developing countries where many believe these could help in reducing the gap between the rich and the poor, as well as between central and peripheral regions. This essay draws on some of the most relevant literature in this field to assess the different perspectives through which scholars understand the implementation and impact of these projects. This work, based on the literature reviewed, reveals how different scholars have very particular understandings of development. Some view e-Government as an opportunity for development in terms of the general upgrading of technological infrastructure, human capital, transparency in the public sector and so on, while others regard these initiatives as a form of developing political control over the masses. Conversely, others adopt a more human point of view, regarding development as a way of fulfilling human capabilities and aspirations. It is suggested that future research in this field should focus on the extent to which e-Government initiatives can benefit marginalized groups in society.

INTRODUCTION

E-government is the delivery of government information and services by means of Information and Communication Technologies (Gronlund et al., 2006). It is seen as a powerful means of modernizing the government by making it more efficient, facilitating communication and increasing interaction with its citizens. According to Yildiz (2007), e-Government could help create a networked structure of interconnectivity, service delivery, efficiency and effectiveness, interactivity, decentralization, transparency and accountability. Over the past two decades, many developing countries have been engaging in such projects with the hope of providing better public services and increasing government transparency by better informing the public in a cost-efficient fashion.

In this essay different scholarly perspectives are assessed regarding e-government project implementation. There seems to be general agreement on the potential of e-Governance to be an efficient tool for tackling underdevelopment. Nevertheless, as discussed later in this paper, there are also concerns associated with the implementation of e-Government projects failing. The World Bank estimates that 85%

of these projects result in failure. Furthermore, there are also apprehensions about the way e-Government projects are being implemented, such as in Ciborra (2002), where the current pressure to push developing countries to develop electronic governments is seen as being driven by a hidden agenda from the Western World.

This essay starts by focusing on the implications of these projects by studying e-Government as a form of administrative reform. The following two sections discuss e-Government implementation: firstly, by examining literature that establishes criteria for successful e-Government development initiatives; and secondly, by assessing the literature which focuses on contextual factors that affect these initiatives. This essay also tries to identify the different ways in which development is understood in the e-Government literature so far. Concluding remarks are then presented along with suggestions for future research.

LITERATURE FOCUSING ON E-GOVERNMENT AS A FORM OF ADMINISTRATIVE REFORM

As a starting point, this section discusses an important body of literature which sees e-Government as a means to achieve broader goals of administrative

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reform in terms of increasing accountability, transparency and good governance (Ciborra, 2002). It is important to note that this perspective on e-Government projects is present in both developed and developing countries.

Osborne & Gaebler (1992) talked about 'reinventing government' in the early 1990's to explain the long-term processes of public sector reform. This was a response to a sense of crisis in the public sector prevalent since the 1970's, which was fuelled by the emergence of the 'New Right' and supported by political will and power to enact those responses (Heeks, 1999). Neoliberalism was emerging as the new driving force behind this response to a sense of crisis in the public sector and it contained several components that continue to shape e-Government initiatives today. These include a need to increase efficiency, decentralization, accountability, improving resource management and promoting marketization. Nevertheless, as will be discussed in the following sections of this essay, this perspective overlooks the importance of looking beyond the technological artefact to account for broader social dynamics, institutional arrangements and organizational forms that have an important role in the implementation of e-Government projects.

Cordella (2007) argues that recent e-Government approaches overlook the fact that bureaucratic institutions not only provide mechanisms to harmonize work activities in the public sector, but also serve to implement the most basic democratic principles of impartiality and equality. He argues that by promoting the New Public Management (NPM) agenda, which emanates from Neoliberal ideology, we will not be offering equal and impartial services to citizens. According to Aberbach and Christensen (2005), talking about how the NPM agenda's results are questionable, "the customer service concept tends to ignore that some citizens have more influence than others in any political system and they are the ones who tend to receive the best treatment".

Cordella (2007) posits that when e-Government initiatives follow the NPM ideology, the impacts not only involve the improvement of transparency, speed and accountability of actions in the public sector, but also have an impact on the nature of the services provided. By focusing on the impacts that promoting NPM could have on democratic values for the citizens, Cordella (2007) as well as Aberbach and Christensen (2005), advocate for a "people focused" approach to development. They argue that information and communication technologies (ICTs) can be used to support the bureaucracy in service delivery and information processing more than transforming it into a customer-oriented organization, thereby promoting the use of ICTs to enhance

human capabilities in terms of access and usability of e-services. This body of literature provides an important view of development, emphasizing the promotion and maintenance of basic human rights such as the values of equality and impartiality in public service delivery. We now move away from examining e-Government initiative links to administrative reforms to assess a body of literature which identifies criteria for the successful development of these projects.

LITERATURE FOCUSING ON ESTABLISHING CRITERIA FOR SUCCESSFUL E-GOVERNMENT DEVELOPMENT INITIATIVES

According to Gronlund et al. (2006), "definitions of e-Government are unanimously socio-technical: organizational change, skills and technology are together the key to success". Gronlund et al. (2006) understand the potential that e-government initiatives have to achieve socio-economic development in many countries and, in this regard, they take a socio-technical stance in looking beyond the construction of the technical artefact to capture the environment surrounding it. A checklist is therefore provided which looks for factors critical to the success or failure of the project such as strategy and political foundations, organizational preconditions and the technical environment. Subsequently, they complement this with a Maturity Model, which aims to help visualize the path of a particular country towards administrative maturity. These tools are aimed at practitioners in order for them to identify whether the conditions required for the successful implementation of an e-Government project are fulfilled or not, and aim at decreasing failure rates in the future.

Following this line of thinking, Heeks (2001) also believes that information and communication technologies can make a significant contribution to the achievement of good governance by improving government processes, connecting citizens and building external interactions. Like Gronlund et al. (2006), Heeks (2001) believes that developing countries face risks when implementing an e-Government project. He also establishes some guidelines of good practice to be followed, identifying 6 pre-conditions for e-governance which he believes are essential for e-Readiness. Furthermore he proposes an e-Governance Design-Reality Gap model to explain and predict e-governance success and failure by identifying the difference between design ideas and organisational realities.

Both Gronlund et al. (2006) and Heeks (2001) firmly believe that once the pre-conditions needed to

implement such a project are fulfilled, there will be benefits from adopting e-Governance initiatives. Similarly, Haldenwang (2004) sees e-Government as a means of improving public service delivery, strengthening the openness and transparency of political processes and making public administration more efficient once certain conditions are met. In his analysis, it is suggested that, for e-Government projects to succeed, first there has to be a group of reformers with considerable political power to get things started and then the public needs to be involved to build up pressure. He emphasises the fact that internal administrative reforms are crucial for better service delivery.

In Jaeger and Thompson (2003), a set of policy issues which are considered important for the success of e-Government project implementation are also addressed. These include the education of citizens about the value of e-Government, the coordination of local, regional and national e-Government initiatives, the development of methods and performance indicators to assess the services and standards of e-Government and the provision of consistent and reliable electricity, telecommunications and Internet access. Interestingly, when taking a more people focused approach to development, some of the policy issues addressed relate to tackling the issues of language, communication and including individuals with disabilities in e-government initiatives.

Ndou (2004) reveals some insights on e-Government project implementation based on an empirical web-based research of 15 case studies in developing countries. She sees vast potential in e-Government. She even goes as far as stating that “the organizations, public or private, which ignore the potential value and use of ICT’s may suffer pivotal competitive disadvantages”. Following the same line of reasoning as Heeks (2001), Gronlund (2006), Haldenwang (2004) and Jaeger and Thompson (2003), she believes that developing countries will only be able to exploit and appropriate the potential benefits of implementing e-Government projects once a set of conditions and needs are fulfilled. As presented in Heeks (2001), an e-Readiness assessment which would take into account the level of infrastructure, legal frameworks and human resources is suggested. Furthermore, she proposes to raise awareness among the public and private organizations by organizing workshops and events, and places emphasis on investing in human development. Like Allen et al (2001), she believes that “the adaptive challenges of e-Government go far beyond technology; they call for organizational structures and skills, new forms of leadership and transformation of public-private partnerships”.

Other scholars, such as Schware and Deane (2003)

and Basu (2004), also believe in the potential benefits from adopting e-Government initiatives in developing countries. In contrast to the literature reviewed so far, they consider that the main factors behind the success or failure of these projects are the way in which governments address technological infrastructure and the legal frameworks that are required for projects to be successful. While still considering the social environment surrounding the technical artefact, more emphasis is put on these two issues. According to Schware and Dean (2003) “governments should promote strategies that focus on ICT infrastructure development as a prerequisite to e-Government- “I” (infrastructure) before “E” (strategy)”.

From the literature reviewed so far, we can identify that the views regarding development from these scholars converge. There seems to be a consensus on the potential of e-Government initiatives for driving development, which is seen as a mixture of upgrading technological infrastructure, the acquisition of skills by the public and the increase in transparency and better service delivery by the public sector. This view of development considers both the technical artefact and how people are involved in the process of implementing it, and is associated with the general improvement of social and economic conditions of a country. The suggested rules-of-thumb and pre-conditions or criteria by these scholars for measuring success can be referred to as following a technical-rational perspective. We now turn to look at how alternative perspectives are used to look at e-Government initiatives, and what is here understood by development.

LITERATURE FOCUSING ON CONTEXTUAL FACTORS THAT AFFECT E-GOVERNMENT FOR DEVELOPMENT INITIATIVES

In the previous section we have revealed a particular perspective which is supported by strong believers in e-Governance who offer guidelines and rules-of-thumb that involve technical factors and public capabilities which are supposed to facilitate socio-economic development. Other scholars such as Ciborra (2002) and Rose and Miller (2010) argue that these projects might not solely be driven by this aim. In this section I will assess studies that emphasize how the social context and institutional arrangements of a particular country can influence an e-Government project’s implementation and outcomes.

In Ciborra (2002), a case study in Jordan regarding the implementation of ICT’s is used to demonstrate that e-government projects often fail because it is difficult to implement them given the characteristics of the local administration, the socio-economic con-

text and the dynamics of the technical infrastructure. Ciborra (2002) adopts an Institutional stance. The institutions here are seen as influencing the design, the use and the impact of e-Government technologies on the country. He places emphasis on participation, and argues that for a successful implementation of an e-Government project, there is a need to align the actors (such as users, vendors, ministries and foreign states) and to re-construct these projects by observing the interplay between the actors involved. He believes that e-government projects are a way for the Western World to remotely control potentially dangerous states. It is perhaps this “below the surface” motive that hinders the process of e-government implementation by focusing more on the supply-side of the project than on the actual impacts it might have for its most important users, the citizens.

Similarly, Rose and Miller (2010) consider that “governmental technologies are the complex of mundane programmes, calculations, techniques, apparatuses, documents and procedures through which authorities seek to embody and give effect to governmental ambitions”. In their study, they suggest that there are many political alliances which seek to influence and drive social life and economic activity to manipulate people’s behaviour through the use of governmental technologies. As in Ciborra (2002), this suggests that e-Government strategies could potentially be used to drive particular interests of powerful groups forward. Development here is seen by those who govern as a way of “controlling the masses” and spreading their area of control.

In the same way as Ciborra (2002) and Rose and Miller (2010), the study of Cordella and Iannacci (2010) looks at the logic behind the design of new technologies and how political values and interests are inscribed in e-Government strategies. They look at the social, political and institutional dimensions of e-Government projects building upon the technology enactment framework (Fountain, 2001), which looks at the influence of organisational structures and institutional arrangements on ICT implementation in the public sector (Yildiz, 2007). Here, e-Government initiatives are seen as being used in favour of preceding institutional arrangements, such as legal and cultural aspects, which strengthen the consistency of the existing organisational forms. They use a case study of England and Wales criminal justice reforms to demonstrate that e-government initiatives shape the decisions and design of technologies and its features, which they believe are not impartial but rather carriers of the ambitions and objectives of particular reforms. In this case, these reform ambitions are based on the NPM paradigm, following the principles of efficiency, marketization, accountability, improved resource allocation and decentralization.

According to Cordella and Iannacci (2010), the “design of technology is infused with shifting political logics”.

Somewhat differing from Ciborra (2002), Rose and Miller (2010) and Cordella and Iannacci’s (2010) views on the intentions of e-Government initiatives in developing countries, Stanforth (2007) uses Actor Network Theory (ANT) to understand the trajectory of ICTs for development. She sees the potential of e-Government initiatives for driving improvements in transparency and accountability for the public sector. In this paper, ANT is seen as contributing to answering questions about the relationships between the technical and the social, and about how to build networks around the implementation of e-Government projects in less developed countries. According to Stanforth (2007), “Technology is just one of a number of sociotechnical elements that must be considered and managed in the design and implementation of a successful information systems project”. Stanforth (2007) uses ANT to understand the dynamics of how people make sense of the new technology being implemented through socially-embedded reasoning and applies it to a longitudinal study of the public expenditure management information systems supporting the fiscal reform program in Sri Lanka. ANT here is seen as a difficult theory to apply, but nevertheless useful in understanding the relationships between groups, people and the technology. It is claimed that, by identifying technology itself as an actor that stands in alliance or conflict with varied human groups, ANT grants a unique potential in e-Government initiatives research.

Madon (2004) provides a helpful insight on the demand-side of e-Government projects focusing on the impacts they have on people, based on Amartya Sen’s capabilities and freedom approach. Similar to Stanforth (2007), Madon (2004) takes a socially-embedded perspective on the implementation of e-Government projects, concerned with how people make sense of the new technologies being implemented. She explains that there is a gap in the study of e-Government initiatives with regard to how they affect the lives of people in less developed countries, and proposes a framework based on Sen’s capabilities approach to human development. It is argued in this paper that the capabilities framework allows us to take into account the developmental impact of e-Government projects by assessing what people in practice can or cannot do with the applications offered and the benefits they can get from them. She bases her evaluation on the FRIENDS (Fast, Reliable, Instant, Effective network for disbursement of services) and the AKSHAYA (conceived to bridge the digital divide and act as a catalyst for socio-economics development) projects in the South Indian state of Kerala. According to Madon (2004), the

framework proposed in this paper goes beyond earlier e-Governance evaluation principles by trying to comprehend the way e-Government projects, once executed, are used to attain the fulfilment of human capabilities.

Madon (2004), and to a lesser extent Stanforth (2007), hold views on an approach to development that clashes significantly with the literature previously reviewed. While the different scholarly views on development through e-Government initiatives focus on access to technology, the establishment of infrastructure, the importance of expenditure, transparency and so on, Madon (2004) takes a more "people centred" approach understanding development as the fulfilment of human capabilities. This clash could be understood as the difference between views of development from a top-down versus bottom-up perspective.

CONCLUSION

Based on the literature reviewed we can conclude that there is a general consensus on the fact that e-Government projects have great potential in driving forward socio-economic development. Nevertheless, there are risks associated with its implementation and guidelines, along with good practice models prescribed by some to deal with these issues. Furthermore, some of the literature reviewed raises issues associated with the double intentionality of implementing such projects. There are also concerns about the fact that the promotion of New Public Management agenda might hinder the democratic values which some bureaucratic institutions efficiently apply.

Within the literature, we can identify different perspectives from which the implementation and the impacts of e-Government projects are assessed. From these perspectives, it is possible to identify the different interpretations of development that are inscribed. While some view development as the improvement in accessibility to services, infrastructure, ICT skills and other factors directly linked to the technical artefact, others take a more human-centred approach in identifying how this technology is going to change their lives in practice and what advantages they could benefit from. Others understand development as the promotion and maintenance of basic human rights such as the values of equality and impartiality in public service delivery.

Based on this analysis, further research on the impacts of e-Government initiatives on the most deprived section of the population in developing countries (in terms of marginalization, access to in-

frastructure, education and so on) would be enlightening for this field. Many questions remain which should be looked into, such as how to include the most deprived in such projects and what the short-term benefits that can be drawn from these initiatives are. Moreover, future research should study whether these projects help people grow out of poverty independently and without constant support of the state.

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