EGOVERNMENT: MAKING SENSE OF FRAGMENTATION AND CONTRADICTION

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Abstract: *A burgeoning number of academic publications present diverse definitions, models and frameworks of eGovernment, while more recent empirical studies refer to discrepancies between the anticipated development of the field and eGovernment implementations. This white paper proposes that when eGovernment is considered from the perspective of the development of a discipline, it enables sense to be made of its current diversity and fragmentation. Increased clarity will come from acknowledging that eGovernment will experience similar tensions in its development to those of many other fields, and is not unique. This lens also allows researchers to draw upon relevant theory from related disciplines. This paper applies this perspective to some of the issues that have troubled eGovernment researchers, and proposes that the application of these ideas to future eGovernment research will help reduce duplication of effort and avoid theory silos.*

Introduction

The following assumes that eGovernment is a field of research. The field of eGovernment dates from around 1996 (Coursey and Norris 2008), while empirical research papers on eGovernment first appeared in 1999 (Norris and Lloyd 2006). Official eGovernment websites for the delivery of information and services first appeared from around 1995 (Coursey and Norris 2008). These timelines suggest that research into eGovernment is embryonic. Although a range of definitions, models and frameworks for eGovernment has been proposed, it is unsurprising that eGovernment theory building and testing has been meagre. This is because there has been less opportunity in eGovernment than in other fields to derive and refine theoretical models from the findings of past empirical research.

In recent years however, empirical studies of eGovernment implementations have emerged. A number of these studies have reported a gap between the predictions of eGovernment's development from its models, and the achievements of eGovernment implementations, prompting debate on the nature of, and reasons for, the inconsistency. Most recently some discussion has been pessimistic, referring to an inadequacy of eGovernment models to overcome problems in the field's development. Such discussion laments a loss of opportunity to bring about positive change for citizens and nations in the ways depicted in eGovernment theory to date.

This white paper proposes that eGovernment researchers draw upon the experiences from the development of other disciplines and fields. Reference to other fields will help make sense of the eGovernment experience to date, and assist in making realistic predictions about its future development. So rather than examining current and future eGovernment from a position

based within the field, this author advocates examining eGovernment from the outside looking in, drawing upon solutions to related problems from other fields.

Models of eGovernment Development
Many definitions, models and frameworks associated with eGovernment development have been proposed in the short time since eGovernment academic literature first appeared. A range of these will now be discussed.

Some eGovernment authors have used Chadwick and May's (2003) framework of the interaction between government and its citizens, which draws upon the managerial (informational), consultative (interactive) and participatory (multidirectional and democratic) models. Grant and Chau (2005) reviewed 22 operational definitions of eGovernment from the academic and practitioner literature published between 1992 and 2004, including that of Chadwick and May. They concluded that eGovernment development includes the following characteristics: enables service and information delivery; is transformational; is diverse in its solutions and applications; is international; has a strong association with IT which facilitates interactivity and involves integration; and provides a "seamless service delivery and transaction environment" (p.8) in a sophisticated manner which may involve adopting a citizen-centric perspective, service personalisation and constituent relationship management.

Coursey and Norris (2008) reviewed five publications dating from 2000 and 2001 that proposed models of eGovernment development, including one that was considered in Grant and Chau's (2005) review. Coursey and Norris's review reported that these publications largely depicted eGovernment as a predictable, linear development process which progressed through a series of phases. Despite noting some differences in the models, the authors reported that all five first of all involved establishment of a web presence with information dissemination, before moving on to offer interactivity with citizens, transactions and then integration of government. Finally the models portrayed eGovernment as reaching "the seamless delivery of governmental information and services, e-participation, e-democracy, governmental transformation or some combination of the above" (p. 252).

It can be seen that despite some differences there are commonalities in the conceptualisations of eGovernment development reported in the review of models discussed above. The models place emphasis on progressive, linear development through a series of broadly common and increasingly complex phases. Apart from the first one or two phases which model developers could observe, until recently it has been necessary for eGovernment models to be largely normative, based on prediction and speculation (Coursey and Norris 2008), or "rhetorical intention" (Davison, Wagner and Ma 2005), rather than being grounded in empiricism.

The Development of Disciplines and Fields
It is tempting to consider the development of the eGovernment field as unique, particularly as the eGovernment phenomenon itself is new. However, there is a body of knowledge that explains changes in fields of knowledge, including the emergence of new disciplines, through common characteristics (Ridley 2006). This literature holds that the features and milestones of the development of a field may be typical of the early development of all or many fields. The same literature explains the development of a field as the result of a range of often common pressures which act upon it.

It is not difficult to draw similarities between the development of eGovernment to date and that of other fields and disciplines. An appropriate discipline for comparison with eGovernment is Information Systems (IS), a related field, although a number of other disciplines could also be used, including Management or Computer Science. Debate within IS regarding its state of maturity continues more than 40 years after the field's inception.

The presence of theory has long been accepted as a sign of maturity in a discipline, as it provides researchers with a basis for choosing problems by guiding them in their investigations. Much has been written about the limited theory available in IS (see for example, Keen 1991; Paul 2002), just as it is a theme in eGovernment. Considerable discussion has also taken place in IS about the role of reference disciplines. Many papers have debated the desirability of applying theory from other disciplines to IS (for an example from earlier in the development of IS, see King 1993). It has been claimed that a scattergun approach to IS research topics prevented the development of a cumulative research tradition. For example, Hirschheim and Klein (2003) saw a 'generalisation deficit' (p. 257) in IS, which also appears to be one of the criticisms leveled at eGovernment at this time. Awareness of limited theory development and testing, and concern about the explanatory power of the theory currently proposed in eGovernment, contributes to anxiety about the future of the field.

Applying the Learning from Disciplinary Development to EGovernment
Recently there has been some pessimism about the potential of eGovernment as a result of research into eGovernment implementations (see for example, O'Toole 2007). There is growing awareness that the predictions made in normative models (Coursey and Norris 2008) for eGovernment have largely not been seen in its implementations. Researchers recognise that the barriers to attaining the sophisticated later phases of eGovernance with higher level functions will be difficult to overcome (March and McNiven 2003). EGovernment research appears to be moving from rhetoric and euphoric predictions, to an awareness of challenges and barriers, derived from the findings of empirical studies.

Despite its potential, the eGovernment phenomenon will not be unique in avoiding the barriers that have impacted on the development of all other fields. EGovernment researchers will come to recognise that their field will be subject to pressures that have been studied in a range of related disciplines, including IS. Similar tensions will act upon any technological implementation that involves interplay between people and organisations. Consequently, the theory from relevant reference fields has potential for adaptation to eGovernment.

The results of empirical studies will be used to modify the normative models. Future models and frameworks for eGovernment will need to be able to accommodate the challenges seen in the results of recent empirical work through drawing upon explanations offered by theory from related fields. This kind of theoretical development which builds upon cumulative research traditions from reference disciplines has already begun in eGovernment. Two examples to illustrate this more sophisticated form of theorizing about eGovernment are discussed next.

A framework for eGovernment development that acknowledges both the value of theory from related fields and the challenges faced as eGovernment is diffused into service is the one developed by Davison *et al.* (2005). This model borrows from the cumulative traditions of other reference disciplines. It draws upon the strategic alignment model (Henderson and

Venkatraman 1993) and the data processing maturity model (Nolan 1979) from IS, connecting with insights gained from eGovernment maturity models to overcome barriers seen in eGovernment implementations. It is different to the single-dimensional models of eGovernment development referred to earlier, as it incorporates a strategic alignment aspect.

A second framework from the eGovernment literature by Titah and Barki (2007) also demonstrates the use of theory from reference disciplines to access cumulative research traditions already established elsewhere. This framework, set within a local government context, focuses on the latter stages of eGovernment development. It examines the relationships between factors that influence eGovernment use and impact, in order to explain why some local governments are more successful at eGovernment than others. This theory draws upon ten studies from management and IS that examine dynamic capability theory, complementarity theory and value process models.

The emergence of frameworks of this kind, which anticipate challenges and apply relevant theory from other disciplines, is interpreted by this author as positive both for the maturity of eGovernment theory development and building a cumulative research tradition.

Conclusion
EGovernment is at a very early stage in its development. Although the field itself is unique, studies into the development of disciplines indicate that eGovernment's progress as a field will not be unique. Once it is recognised that eGovernment will be subject to some similar challenges and developmental pressures that are experienced in other related disciplines and fields, it is easier to make sense of its current fragmentation and contradiction. Both characteristics can be expected during the development of a field. Moreover, where challenges in eGovernment's reference disciplines are similar to those in eGovernment, there is potential to adapt solutions from elsewhere for eGovernment, as has been done in IS. It appears that for the first time since the inception of eGovernment with its promise for improving the lives of so many, that the confidence of those working in the area has waned. Where challenges are expected and possible solutions are available for adaptation to the field from elsewhere, it will be easier to maintain confidence in the future of eGovernment. It is hoped that the realisation that declining confidence is a typical (and possibly necessary phase) in the development of any new field will help sustain researchers and practitioners working in this area. It is the author's belief that an awareness of the ideas presented in this white paper will also help reduce duplication of effort in eGovernment by avoiding the development of theory silos, where theory in the field is isolated from theory in related (or the same) fields.

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