

**THE “I” BETWEEN G AND C:  
E-GOVERNMENT INTERMEDIARIES IN DEVELOPING COUNTRIES**

Maung K. Sein  
Department of Information Systems  
University of Agder  
Service Box 422,  
NO-4604 Kristiansand  
Norway  
[Maung.K.Sein@uia.no](mailto:Maung.K.Sein@uia.no)

**ABSTRACT**

While there has been a rapid growth in e-Government initiatives in developing countries, whether it has led to providing effective government services to the citizens has remained a question of concern. Evidence suggests that this objective is far from being met. The main hurdle has been that an overwhelming part of the citizens in these countries do not have the capability to either access government information physically or to use it effectively even when they can access it. In this paper, the conjecture is made that linking citizens to government in developing countries require an intermediary. Based on prior articulations of this concept, this paper develops the entity Intermediary and explicates its role in the government to citizen interaction process<sup>12</sup>.

**Key Words:** e-Government, developing countries, intermediation, digital divide

**1 INTRODUCTION**

Implementing e-Government initiatives in developing countries (DC) is a complex and challenging process that faces many hurdles. These have been described and discussed in great detail in the literature (see e.g. Heeks, 2000). Instead of repeating these issues, in this paper, I will focus on a specific aspect of the problem, namely, access and use of eGovernment services by citizens. While both issues have been discussed under the rubric of the so-called Digital Divide, the first primarily relates to physical access and the second primarily to hurdles such as low literacy, and, social, gender and religious issues (Heeks, 2000). Obviously, the answer is to facilitate both.

Improving physical access can be done by providing computers and network connectivity to citizens. Since the majority of citizens in DCs are poor, suggested and tried solutions have centered on providing inexpensive computers (e.g., simputers or the hundred-dollar computer). This approach has been criticized because it focuses only on the technology without considering the required support needs (such as education, maintenance etc.), how they will be used and cultural differences (CNN, 2005). Even if this approach succeeds, the problem of connection to the Internet remains. In 2006, Internet penetration in DCs was less than 10% (UNCTAD, 2008).

The picture is actually less bleak because a large percentage of the population in DCs uses public access points such as Cybercafés and Telecenters which have been set up and run by government agencies or NGOs. These do, or have the potential to, bring e-Government services to the citizens of DCs. Yet, both face fundamental challenges. Telecenters have

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<sup>2</sup> I am indebted to the anonymous reviewers for a number of insights, specifically on the motivations of the government, non-citizens, the unbalanced power relationships between intermediaries and citizens and the need for an overarching theory on government.

sustainability problems (Mukerji, 2008; Sein et al., 2008); cybercafés are mostly located in urban areas because rural areas are smaller markets (Proenza, 2001; Roman and Colle, 2002).

Even if citizens do get physical access to e-Government information, using it appropriately remains a challenge (Heeks, 2000). Simply put, the overwhelming majority of a DC does not have the capability to avail of any eGovernment service. First, literacy rate is low in DCs (often under 30%). Next, even among the literate, resources (time, money), knowledge and motivation to use ICTs is low (Heeks, 2000). Citizens do not know what information is available, where to find it and how to use it. In other words, they are unaware of the relevance of e-Government services or information. Social and gender exclusion exacerbate the problem. The typical Internet user is younger, male, has higher education and lives in the urban area (Heeks, 2000). Since a large proportion of the population in DCs live in non-urban areas, e-Government services do not reach the majority. The motivation of the governments may also be questioned: do they really want civic participation or a pliant citizenry? The concept Government (G) to Citizen (C) - G2C - interaction is essentially meaningless in this context.

To facilitate the link, 3rd parties have stepped into the breach. Such 3rd parties can be “Civil Society” (Gronlund, 2000) consisting of non-governmental organizations (NGOs) and concerned citizens such as activists and religious voluntary bodies (Wahid et al., 2011), as well as aid organizations (Bailey, 2009). While the role of these groups has been discussed in the literature (Jansen and Klievink, 2008, Mahrer and Krimer, 2005, Madon and Sahay, 2002) their involvement directly in the interaction between G and C has received less explicit attention. The exceptions have been conceptualizing these 3rd parties as intermediaries (Heeks, 2002) and examining their roles in mediation (Madon and Sahay, 2002, Beck et al., 2004).

In this paper, I further develop the concept of intermediaries. The conjecture is that in a DC context, at the current time, an Intermediary is essential to link G to C. In other words, I (for Intermediary) is a vital, if not unavoidable, entity of equal importance as G and C. I will draw on a deeper grained conceptualization of basic entities of eGovernment developed by Flak et al. (2007). Although this stream of work is being carried out in a western and developed country, it nevertheless provides valuable insights and tools that can be extrapolated to other contexts. I will adapt and apply this to a developing country situation using specific examples from the literature on eGovernment in DCs to illustrate the issues.

The rest of the paper is organized as follows: I first briefly present the conceptualization of basic e-Government entities which will underlay my proposals on “I”. Next, I summarize the literature on 3rd party and specifically on intermediaries and mediation. I then develop the conceptualization of “I”, propose classifications of types of I, define the different roles and describe them. I present cases to illustrate each of the four types of intermediaries in the classification. I then discuss the implications for practice by presenting some guidelines for development of eGovernment projects and conclude by discussing implications for research and offering avenues for future research.

## **2 CONCEPTUALIZATION OF BASIC E-GOVERNMENT ENTITIES**

### **2.1. Classification**

Arguing that broadly classifying entities of eGovernment into Government (G), Citizens (C) and Business (B) fails to recognize the vast variation within these entities and the consequential variance in the way they interact, Flak et al. (2007) proposed a finer-grained classification with sub-groups within the broad entities. They further outlined the interaction within the entity subgroups and between the entities. These classifications are reproduced in Tables 1 and 2.

**Table 1. Entities of e-Government (adapted from Flak et al., 2007)**

Basic entity	Sub-categories	Description
Government (G)	Politician (GP)	Publicly elected decision and policy maker (e.g. mayor, councillor, parliament member)
	Administrator (GA)	Middle and higher level salaried career employees executing politicians' policies (city manager, health department head)
	Service provider (GS)	Lower level salaried career employees carrying out day to day government jobs directly or indirectly interacting with citizens (e.g., case officers in school department, advisors and information providers in taxation office)
Citizen (C)	Consumer (CCon)	Uses services offered by the government
	Activist (CAct)	Citizens involved in efforts to effect specific government policies and decisions through civil action often individually or in groups (e.g., Amnesty International)
	Direct Decision makers (CDD)	Citizens are directly responsible for the decisions being made in a direct democracy system.

**Table 2. Interactions between the Entities of e-Government (Flak et al., 2007)**

Type	Interaction	Example
Within entities	Politician – Administrator GP2GA	Politicians discuss policy issues and convey decisions to salaried employees
	Administrator – Service provider GA2GS	Strategic, tactical and operational decision making and task accomplishment
	Politician - Service provider GP2GS	Only informal
	Service provider – service provider GS2GS	Handing cases from citizens that cross departmental boundaries (e.g., placing a child through school)
	Administrator – Administrator GA2GA	Deliberations and decision making on issues that require involvement of more than one department
	All C2C interactions	Discussions on projects. Discussions on social issues
	All B2B interactions	Discussions on implications and consequences of government decisions
Between entities	Politician – all Citizen categories	Deliberations on social and governing issues and projects (such as a new road)
	Administrator – Consumers GA2Ccon And Administrator – Advocacy groups (CAg)	Information on forthcoming initiatives or explanations of decisions already made
	Service provider – Consumer GS2Ccon	Use of government services

## 2.2. Applying to a Developing Country Context

Arguably the most important basic entity is Citizen (C) specifically the subgroup Consumers (CCon). As several authors have stressed (Flak et al., 2007, Heeks, 2000, Bailey, 2009), this

group stands to benefit most from eGovernment and should have the most interaction with the Government (G). That indeed is the case with developed countries. In a DC, however, this group has the least contact (Heeks, 2000). By contrast, the group that perhaps has the most contact is the Activist (CAct) (Madon and Sahay, 2002). Ironically, the benefits from the interaction do not directly accrue to them. Rather they act as advocacy groups. The entity that is likely to have the most interaction with G is Business (B). However, since G2B interaction is outside the scope of this paper, I will only briefly touch upon it and limit my arguments to the extent businesses serve as intermediaries in the G2C interaction.

Provision of eGovernment services requires interaction between entities. Chief among them are interactions between G entities (Administrators and Service providers specifically) on one hand and B and C on the other. To a great extent, G entities have been interacting through eGovernment systems with the B entities in developing countries. Recognizing that businesses are important for economic growth, DCs have always prioritized development of such systems, even if they are mostly informational web sites. Examples of such sites are the ones operated by Tanzania Investment Center (<http://www.tic.co.tz/>) and Board of Investment, Bangladesh (<http://www.boi.gov.bd/>).

Yet, when it comes to the heart of eGovernment, i.e., G2C interactions, the picture is bleakest. While examples abound of “successful” direct G2C projects, a closer look reveals a starkly different picture. Often, institutional and other concerns have more to do with the number and the type of services offered to citizens than service objectives (West, 2005). Even when such services are offered, developing country context throws up a greater challenge arising from the two main hurdles outlined above: the digital divide and illiteracy (or a combination of the two, “digital illiteracy”). Clearly, there is a need for an intermediary to link C to G.

### 3 PRIOR LITERATURE ON THE INTERMEDIARY ROLE

The idea that there is a vital third party in eGovernment beyond G and C has long been articulated in the literature (e.g. see Heeks, 2000). These 3rd parties are variously termed as “informal sector” (James, 2003), “civil society” (Gronlund, 2000) intermediaries (Arendsen and ter Hedde, 2009, Jansen and Klievink, 2008, Heeks, 2000, 2002), and, “partners” (Roman and Colle, 2002).<sup>3</sup> Their role has been mostly perceived to be facilitating physical interaction between G and C. A typical conceptualization is the Society, Media and Politics (SMP) model proposed by Mahrer and Krimmer (2005) which depicts P as G, S as C and S and Media as the third party, without detailing the interactions between the entities. A more nuanced model proposed by Heeks (2001) lists 3 other groups beyond G, C and B, namely, Communities, Non-profits and Others and the interaction links between the entities.

While these parties have almost exclusively been presented as from the non-profit sector, the role of the private sector has also been discussed, albeit with caveat (Oestman and Dymond, 2001). The most common conceptualized role for these “I”s is to provide physical access. Empirical support for this postulation also exists in the literature. In a survey of 15 eGovernment projects in India by Gorla (2007), 9 had 3rd party involvement. All 16 of the telecenters in a study in Jamaica (Bailey, 2009) were operated by third parties. While these studies do not necessarily imply that all such access points need to be run by Intermediaries,

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<sup>3</sup> Another term for such entities is “infomediary”. However, this term is mostly associated with entities that collect, collate, integrate and make this processed information available to users. “Infomediary” as a phenomenon has long existed in marketing and finance, and subsequently eased into the eCommerce domain in the form of webportals. In eGovernment context, such intermediation is not uncommon (see Jansen and Kleivnik 2008). To avoid confusion with such entities and to emphasize my point that in the context of eGovernment, a human element is essential, I deliberately avoid the term “infomediary”.

it is nevertheless clear that they play a major, if not the most essential, role in enabling citizens to access government services.

An expanded role for intermediaries is suggested by Heeks (2001) who proposes that a human (“intelligent”) intermediary (p. 9) is needed to help C to access G. His/her role is to locate Government information (implicitly on eGovernment sites), access it on behalf of the citizen and use it as appropriate. This form of intermediation has resulted in diffusion of eGovernment services in Saudi Arabia (Al-Sobhi et al., 2010). A more involved role is uncovered by Madon and Sahay (2002) who describe how an NGO takes on a mediation role with the goal of empowering slum dwellers.

Why are Intermediaries essential? While this remains an empirical question, the literature provides several pointers. As I have already stated above, most citizens in DCs use public access points such as Telecenters. The sustainability of telecenters, it is argued, depends on effectively managing the interaction between several stakeholders including the civil society and the government (Madon, 2005). Citizens are also more likely to trust an intermediary than the government (Akhter et al., 2007) reflecting the general distrust of governments in DCs (World Economic Forum n.d.). Even more vital is the ability of Intermediaries to respond to local needs (James, 2003). This emphasizes the relevance of the accessed information to the citizens, echoing the “appropriate” content condition of sustainability explicated by Sein et al. (2008). In addition, local intermediaries can also fill the role of “champion” or “catalysts” (Sein et al., 2008).

#### 4 DEFINING THE INTERMEDIARY ROLE

So far, I have argued that the Intermediary role is essential for linking G to C. To do so, I have drawn on the conceptualization of this role by Heeks (2002). In the following, I develop and expand on this role. The starting point is the twin objectives of this role: first, to provide physical access for Cs to G, and next to help Cs use services and information offered by G. Later, I expand this role to meet more involved and “higher” objectives. Table 3 summarizes this description.

The first objective is to enable physical access. In this role, Intermediaries provide the computers, networks and support that will enable a citizen to access an eGovernment website. I term this type “Facilitating Intermediary”. In addition to operators of Internet cafes, this is perhaps the most common role taken up by 3rd parties in the eGovernment context in DCs. While these intermediaries are mainly NGOs or socio-religious organizations, and even the private for-profit sector (e.g., eChoupal set up by Indian Tobacco Company), the government itself can take this role through setting up public access points and either run them or “orchestrate” them (Mukerji, 2008) by handing them over to private operators (e.g. eSeva centers in India). Symbolically, this type of Intermediation can be depicted as  $I \rightarrow (G \rightarrow C)$ .

The second objective is to facilitate use of eGovernment services or information. In this role, Intermediaries actually accesses G on behalf of C. I term this type “Direct Intermediary”. These can be NGOs, local community based organizations (CBO), or even a local citizen acting on behalf of fellow citizens. This individual intermediary is most likely to be an activist as defined by Flak et al. (2007). This type of Intermediation can be depicted as  $G \rightarrow I \rightarrow C$ .

An intermediary can combine the two roles outlined above where it provides facilities where direct intermediaries access eGovernment sites on behalf of Cs. I term this type “Enabling Intermediary”. These direct intermediaries are also the staff and employees of the facility (e.g. GPCIC in Bangladesh). This type of Intermediation can be depicted as  $I \rightarrow (G \rightarrow I \rightarrow C)$ .

Finally, an Intermediary may take a role of activism with the explicit aim of uplifting disadvantaged groups of citizens. Such citizens are marginalized and socially excluded. I

term this type “Transforming Intermediary”. The goals of such intermediaries are often expressed as “social inclusion” or “empowerment” (e.g. Jana Sahayog in Bangalore) (Madon and Sahay, 2002). These activists can be non-citizen individual or international organizations. The process of this type of intermediation is similar to direct and enabling depending on whether they own/orchestrate access points or simply use access points owned by others. What distinguishes this type of intermediation from the other types is that the interaction and communication between G and C is often two-way. Citizens do not simply access government services, they also influence government policies and procedures (Walsham, 2010). This type of Intermediation can be depicted as  $I(G \leftrightarrow C)$  or as  $I(I \rightarrow (G \leftrightarrow I \leftrightarrow C))$ .

**Table 3: Summary of Intermediary Types**

<b>Intermediary Type</b>	<b>Role</b>	<b>How realized</b>	<b>Likely taken up by</b>	<b>Key concern</b>
Facilitating	Provide physical access for Cs to connect to G	Through setting up and running Public access points (Telecenters, Internet cafés)	Cybercafes NGOs Government (directly or through entrepreneurs) Religious organizations Private sector (e.g. eChoupal by ITC)	Sustainability
Direct	Interacting with G on behalf of C	Access eGov sites and convey the information to citizens	Local educated person, local activist NGOs (e.g. BRAC)	Locating appropriate content
Enabling	Provide physical access and direct intermediaries	Through setting up and running public access points where the staff interacts on behalf of C	Private sector (e.g. Grameen Phone) NGOs	Sustainability, locating appropriate entrepreneurs, locating and offering appropriate content, hiring appropriate staff
Transforming	Mediation between marginal groups and G	Raising awareness among marginal groups; may include all of the above	Activists - NGOs and individuals (e.g. Jana Sahayog in Bangalore)	Social inclusion of marginal groups; Empowerment

## 5 ILLUSTRATIVE CASES

To illustrate the ideas presented here, I now describe specific instances of each type of Intermediaries. The illustrations are taken both from personal involvement and the literature.

### 5.1 Facilitating Intermediary: e-Seva

e-Seva (or e-Service) is an initiative that offers access to a variety of government services to citizens of the Indian state of Andhra Pradesh. (see eSeva (n.d.) for details). These services are offered at one-stop service centers that are originally set up by the state government and later handed over to private entrepreneurs. Private sector IT service providers, selected through competitive bidding operates them. eSeva had its origin in a pilot project called TWINS (Twin Cities Networks Systems) that was launched in 1999 and extended to the twin cities of Hyderabad and Secunderabad a year later with 24 service centers. Currently there are over 200 centers offering 150 G2C services. These services include payment of utility bills, issuance of certificates (birth, death), issuance and renewals of permits and licenses, and, motor vehicle registration, The public can also fill in and send off applications for passports, download government forms, and file reports such as First Information Reports. Other services provided by eService centers include purchasing of bus tickets and even cash withdrawals through ATMs. The one-step payment facility has been a great boon to the public as they no longer need to deal with multiple agencies to pay their bills but can do so at one place.

By all accounts, eSeva has succeeded in linking citizens to government. The number of transactions per year has skyrocketed from the initial modest figure of 0.3 million to almost 42 million by 2005. The project has also received several awards including the Computerworld honours in 2002. It has a sound business model and the private-public partnership arrangement seems to be working well. Yet, there are also a number of concerns (Harindranath and Sein, 2007). ICT here is viewed as a “tool”, specifically as a means to link citizens to government. It is not viewed as an ensemble - that ICT is situated in a specific socio-organizational context. This is evident from the fact that there is little alignment between eSeva centers and the processes of the participating government departments (Harindranath and Sein, 2007). The government decides which services to offer with little input from the citizenry and thus primarily reflects the government’s objectives rather than the citizen’s. Often, political and strategic factors influence more than efficiency which services are offered electronically (Bushnell, 2009). Still, it is a good example of a facilitating intermediary whose sole purpose is to provide citizens physical access to government services.

### 5.2 Direct Intermediary: BRAC

This illustrative case is from Bangladesh and the description is based on discussion with key personnel involved in the project and first hand knowledge. I was involved in it in a limited way in conceptualizing the project and in its initial planning. Bangladesh is one of the most underdeveloped countries in the world. It is densely populated with 154 million people crammed into 110,000 sq. km. (World Bank n.d.) The population is mostly rural based (80%) and literacy rate is low (43%). It also ranks amongst the most corrupt countries in the world (147th out of 180 countries according to Transparency International n.d.).

Every year, the government of Bangladesh (GOB) allocates funds to local municipalities at the lowest level of government (known as Union Parishods or UPs) for development purposes. These are often tied to specific projects such as building a bridge here or improving a road there. The public has the right to know about these allocations and consequently, GOB publishes this in national newspapers. Theoretically, this information is now available to the public. The problem of course is lies in the very low percentage of the

citizens that is able to access this dissemination due to the low literacy rate and large rural population. Even among the rural literate, newspaper readership is limited. If we add all these factors together, we can immediately see the hurdle in G2CCon interaction. Clearly, an Intermediary is needed and this role has been taken up by an NGO called BRAC, one of the largest NGOs in the world (BRAC n.d). In acting as intermediary in conveying of GOB fund allocation information to rural citizens, BRAC employees or volunteers simply go around the unions and read out the GOB announcements to villagers. It thus acts as a direct intermediary.

BRAC is currently developing an e-Government solution to support this interaction. The objective essentially is to remove itself from the picture thus transforming the interaction to a G2CCon form. There are several challenges for such a project. The first is connectivity to the Internet. In Bangladesh, the total number of Internet users is estimated to be only 500,000 (CIA n.d.) which represents a negligible percentage of the population. To overcome this hurdle, BRAC is considering partnering with other initiatives, specifically Grameen Phone Community Information Centers which is described in the next section. A partnership between BRAC and GPCIC is a possible solution to the problems described above.

Several interesting lessons and issues arise from this case. First, even if BRAC were to move aside from case, it is unlikely that a direct G2CCon interaction will result. Illiteracy, and particularly digital illiteracy is unlikely to vanish in the near future. Thus there will be a continued need for an intermediary. This intermediary can take the form of a local literate person. Next, partnerships will remain key. If the scenario described above comes to realization, we have a 2-way partnership (BRAC-GPCIC) that will constitute the Intermediary role. Yet, the intermediation is only on limited areas, such as the one mentioned here, namely dissemination of information on local government allocations. While this necessarily does not have to be the case always, nevertheless the choice of the information to be accessed remains the choice of BRAC and not the locals. Clearly, the power balance is in BRAC's favour.

### **5.3 Enabling Intermediary: Grameen Phone**

The Grameen Phone Community Information Center (GPCIC) initiative in Bangladesh was started in February 2006 by the mobile phone provider Grameen Phone (GP) in partnership with an NGO called Society for Economic and Basic Advancement (SEBA). (See Sein et al., 2008 for an expanded description and analysis of GPCICs). GP is jointly owned by Telenor the state owned telecommunication company of Norway and Grameen Telecommunications, a subsidiary of Grameen Bank the famous pioneer in microfinance. GP is the country's largest mobile phone provider and a very successful business enterprise (so much so that it is the chief sponsor of the hugely popular albeit underperforming national cricket team). GPCICs are public access points that are owned by individual operators who are screened and selected by GP and SEBA, who also provide initial funding, training and ongoing support. Operators need a modest initial investment (around 1000 to 1500 USD) and they depend on revenues from fees charged to users through which they are expected to become sustainable.

Users of a GPCIC get the typical general Internet services such as web surfing, e-mailing, Skype and even video-conferencing. In addition, GPCIC staff help them with accessing and filling government forms, job searches and applications and market information. In many instances, the staff directly access and provide information to users. One typical example is provided by Sein et al (2008). A farmer was facing a devastating attack of virus on his chilli plants. A GPCIC staff, on learning of this unfortunate occurrence, collected information from the Internet and advised the farmer. Eventually, they got rid of the infection.

It needs to be emphasized that the intermediary here is GP and not GPCIC itself. The latter can be viewed as a good example of a direct intermediary (accessing information on

behalf of the users). GP “orchestrates” GPCICs by setting them up, selecting the operators, training them and facilitating access through their telecommunication network. In other words, GP becomes an intermediary through GPCIC. GP also constantly enhances the offerings to the users. Recent additions include telemedicine and healthcare education. As such, they have the potential to be sustainable. However, GPCIC is primarily a vehicle to carry out GP’s strategy of expanding its fibre optics network. Thus the dictates of corporate strategy are more likely to influence GPCIC’s future than the intentions of intermediation.

#### **5.4 Transforming Intermediary: Jana Sahayog**

Jana Sahayog is an initiative in India run by an NGO called Samuha and has been active for around 2 decades in the city of Bangalore. (For a fuller description of Jana Sahayog and its role, see Madon and Sahay, 2002). It is a paradox that while Bangalore is arguably India’s most famous IT centre, and perhaps the center piece of India’s IT face to the world, fully 27% of the city’s teeming population live below the poverty line, many of them in slums. This substantial group of slum dwellers are mired in poverty, have low education rate and hence are unaware of their rights. Neither are they aware of any possible enhancement in their status that could be expected from government decisions and reforms.

It is against this background that Jana Sahayog (JS) operates. The guiding principle for JS (literally “people help”) is that only by being empowered through awareness would the slum dwellers discover their own development goals and chart a trajectory to lead them out of grinding poverty (Srinivasan, 2006). As such, JS emphasizes building the capabilities of the people rather than simply facilitating access. It uses ICT extensively, and in multiple modes such as computers, community radio, a newsletter as well as live theatrical and literary performances.

JS acts as an advocacy group, and link the slum dwellers to government mostly at the local level, which is the level that affects most their daily lives. It acts essentially as a facilitator- JS Bangalore has a staff of only 2 (Madon and Sahay, 2002) - letting the slum dwellers themselves do the work such as information gathering and circulation. They also predominantly form the editorial board of the newsletter (8 out of 9), and create, produce and perform theatrical plays and poetry. The newsletter serves as the main public forum for debates, and provides government news and reveals cases of corruption. One example of their empowerment was when they successfully stopped misuse of funds allocated for one sector from being used for another. The net result has been the increase in transparency of government decisions. More importantly, JS has succeeded in establishing a two-way communication between the slum dwellers and the government. Essentially, they have managed to transform the relationship between citizens and government from one of edict to a more participatory form. This is an illustration of what Serrentino and Niehaves (2010) terms “E-inclusion”. The power balance between intermediates and the citizens are more even in this case than in the other 3 cases. However, because of the stronger influence such intermediaries have over the citizens, there is also the possibility of manipulation (Wahid et al., 2011).

## **6 DISCUSSION**

The main contribution of this paper is the development and explication of Intermediary as an essential entity in eGovernment in developing countries. I have focused mainly on the instrumental aspect of the intermediary role and not on mediation. This was done in the interest of brevity and clarity. However, instrumental intermediation is an answer to only a part of the problem. As Beck et al. (2004) have shown, mediation is essential, even in a developed country. However, they also emphasized the difference; that in developing countries, this mediation often comes from government entities, e.g. service providers (GS)

while in developing countries, a third party Intermediary (mainly from the non-governmental sector) is essential. This is especially vital if social inclusion and empowerment is an underlying objective. I have also limited my focus on citizens. In a DC, a substantial percentage of inhabitants are non-citizens, such as “gust workers” or displaced persons from other countries. The role of Intermediaries are likely to be even more vital in such cases.

While I have limited my scope to the eGovernment area, I emphasize that the intermediary role is as vital, if not more, in general to bridge the digital divide (see Sein and Furuholt, 2009, for a discussion on this). It is also instructive to examine the conceptualization of the term “digital divide”. Even though I began by focusing on the physical access and use of Government information and services, a broader and more comprehensive perspective of the term emerged. It is in line with the view proposed by Warschauer (2003) where access and effective use of ICT for knowledge creation is influenced by resources such as physical, digital, human and social. Intermediaries can provide one or a combination of these resources. I have suggested how they can provide physical and digital (informational) access. Human and social resources both enable such access and are also enhanced as a result of effective use of ICTs. Thus, as Warschauer states, these can be both “cause” factors and “effect” factors. A virtuous cycle of mutual influence can result in transformation through enhancement of individual and social capabilities.

The classifications of intermediary types proposed in this paper are not intended to be a topology of the actors involved. Intermediaries can move from one type to another by changing the services they offer. A case in point are public libraries. In the simplest form, they can be classified as facilitating intermediaries as they simply provide physical access. However, their roles have changed over time and now they offer information search, downloading of forms and librarians even directly access eGovernment services on behalf of users (Warren and Goulding, 2006). They have thus become direct intermediaries. In a similar vein, intermediaries ostensibly belonging to the same type may, on closer examination, also may be classified differently. Consider GPCICs for instance. In my discussion with a number of the operators on recent visits, I found that the services they offer vary depending on their objectives. A few are simply facilitating intermediaries offering nothing more than physical access to e-Government services. Others directly access these services for the users which makes them direct intermediaries. One operator even attempts to raise awareness among the users of their rights and privileges as well as educate them. This has the hallmarks of a transforming intermediary. It is revealing that he was a local activist and continued his activities after becoming a GPCIC operator.

The conceptualization in this paper provides guidance for developing eGovernment initiatives in DCs. In any such initiative, myriad stakeholders are involved. I have argued that Intermediaries represent a crucial stakeholder group and they should be taken into account when designing and developing e-Government projects. Specific techniques that can be used in performing stakeholder analysis include developing an initial stakeholder map (Flak et al., 2008) and the 3-step process outlined by Flak and Nordheim (2006). It is also important to involve the private sector whose role has been mainly relegated to providing equipment (James, 2003) or running cybercafés (Furuholt and Kristiansen, 2007). Finding effective partnership modes is crucial. An example is eSeva where the centers are set up by the government and then handed over to operators who are private entrepreneurs. Moreover, the ICT infrastructure was built by private vendors who also run the technical operations of these centers. Another model is the proposed partnership between GP and BRAC mentioned earlier.

## **7 RESEARCH ISSUES**

In developing and expanding the concept of Intermediary, my objective was to add to the search for gaining conceptual understanding and clarity in eGovernment research especially in the context of a developing country. Without such clarity, we will not fully realize the

hurdles that e-Government initiatives face. Consequently, we will not be able to effectively meet these challenges and overcome the barriers. Obviously, empirical work needs to be done to verify and validate the concepts presented here.

A fundamental question that we need to tackle first is the basis of such a conceptualization. In this paper, I have proposed a classification of intermediary types. However, as discussed in the previous section, intermediaries can take multiple roles or graduate from one type to another. Perhaps it is more meaningful to base a classification on the intermediation role and the intermediation act and not on the intermediaries themselves. Some specific research issues can be outlined. These are listed below:

### **7.1 Issue 1: The “other” side of Intermediation**

While I have stressed the positive side of Intermediaries, there is also a potentially dark side. Intermediaries can increase corruption as they represent another layer between common citizens and the system (Kumar and Best, 2006, Schuppan, 2009). In fact, elimination of manual intermediaries is often the motivation behind developing eGovernment service such as Bhoomi for land reforms (Prakash and De, 2007). Some even regard elimination of intermediaries as contributing to what they call “real democracy” (Netcheva, 2002). Bhoomi initially succeeded in reducing the role of the manual intermediaries (known as “village accountants” or VA). Yet a deeper analysis of Bhoomi suggested that instead of eliminating these VAs, transforming them into intermediaries as outlined in our paper would perhaps be more useful. The key could be to study the motivation behind why intermediaries take that role. For example, a re-interpretation of the success of the famed eChoupal is that it is a “false win-win solution in a world of unequal actors” (Dangi and Singh, 2010:182) because it has enabled ITC to establish monopolistic control over local production of tobacco. The unequal power relationship between intermediaries and citizens, which we have seen in each of the illustrative cases, leads to the danger of manipulation especially when the intermediaries are organizations that are bound strong ties, such as faith (Wahid et al., 2011).

### **7.2 Issue 2: Characteristics of the Intermediaries**

Motivation is related to the characteristics of intermediaries. For starters, a simple mapping of their characteristics may be useful. A descriptive study can potentially unearth reasons and motivations of the intermediaries. There are preliminary indications as can be gathered from the profiles sketched in the illustrative cases. One key requirement in intermediation is trust (Al-Sobhi et al., 2010, Jansen and Kleivnik, 2008). What characteristics of intermediaries lead to trust in an eGovernment context? This is a particularly intriguing question especially in developing countries where trust of government is often more of an exception than the norm (Akhter et al., 2007). The question of how trust is built between Intermediaries and the Citizens as well as between Intermediaries and Government is in itself an interesting research issue.

### **7.3 Issue 3: Intermediation across Multiple Government Agencies**

While the focus here has been on G2C interactions, a closer look reveals that in a DC context, several other important interactions also have the biggest hurdles. Within entities, these interactions include those between administrators of different departments and serviced providers of different departments. These interactions are prerequisite to offer eGovernment services to citizens. These represent back-office alignment and information flow that are necessary to offer smooth cross-department services. Citizens require services based on life events (Haraldsen et al., 2005). For example, moving from one place to another is a life event. This requires a citizen to interact with several government departments e.g., municipality, license bureau, school authorities, police etc. Should the government aim to provide a “one-

stop” service to its citizens, interaction between these departments is essential. What is the role of Intermediary in such interactions? This is an interesting avenue for future research.

#### 7.4 Issue 4: Theoretical Premises to Study Intermediaries

Studying Intermediaries in more depth requires sound theoretical premises. Obviously, theories on intermediation and on government can provide a foundation on which to build research. Perhaps the most used theories in the ICT4D eGovernment literature are Structuration Theory and Actor Network Theory. Both are appropriate for studying Intermediaries. For example, the concepts of “enrolment and translation” and “delegation” from ANT (see Madan et al., 2003) and those of “signification” “domination” and “legitimation” from Structuration (see Prakash and De, 2007) provide appropriate lenses to understand the dynamics of Intermediation and the role of Intermediaries. Another theory that is applicable is Stakeholder theory that gives us a value proposition of those Intermediaries (see Flak et al., 2008).

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