

Implications of e-government on information delivery services

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Abstract

Offering services electronically by government and public institutions is now common practice, and the terms 'e-governance', 'e-government', 'e-government services' and 'government e-services' have become increasingly popular. This paper which is a prologue to the study investigating the availability of e-government services to rural KwaZulu Natal sought to explain what these terms mean in relation to e-government service provision in South Africa (SA), concluding with their implications on information delivery services. The paper was guided by observations and a literature review. In summary, users of information delivery services have become accustomed to receiving electronic services from the government through e-government and from business through e-commerce, and as such approach libraries with the same mindset. Undoubtedly, e-government is on the move in South Africa and e-government services are being accessed by citizens. The lessons that information delivery services (and libraries in particular) can draw from e-government services are based on two tenets: i) That e-government services are basically information services, and ii) That governments are responsible for providing quality services to the population. The implications noted in the paper can be grouped into the following categories: technological issues, access issues, service type, time, human skills, connectivity, content issues, media type and promotion issues, among others

Keywords: E-government, e-government services, information delivery services, library and information services, implications

Introduction

Proper service delivery is vital for the survival of a modern democracy or government. Access to government information by citizens and organisations is therefore a fundamental ingredient in effective government. With ICTs having taken centre stage in the present information era, this access is increasingly and perhaps optimally made possible via electronic services (e-services).

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With this form of governance, the concepts e-governance, e-government, e-government services, and government e-services have become increasingly popular. As is the norm with new concepts, questions have been raised pertaining to how they tie in with or influence other existing fields of research. In the decade before the turn of the 21st century, questions started being asked about service delivery via e-government. Raising such questions is necessary as they allow a new research field (in this case e-government) to find its identity, among other reasons. Mutula (2010:39) argues that: “In modern governments, e-government and service delivery are inextricably intertwined.” This inextricable link is becoming many a motivation for engaging in e-government. The Presidential National Commission (PNC) (2011) identifies three distinct sectors of e-government services, namely Government-to-Citizen (G2C), Government-to-Business service (G2B) and Government-to-Government service (G2G). The PNC (2011) states that it is G2C that observers perceive to be the primary goal of e-governance. In e-government literature, Government-to-Citizen (G2C) is considered to be the cornerstone of e-government services. A critical observation by the PNC is that, “G2C initiatives also often strive to enhance access to public information through the use of dissemination tools, such as websites and/or kiosks (e.g. PIT’s & MPCC’s)”. Maumbe, Owei and Taylor (2007: 1539) also observe that, “Governments, businesses and increasing sections of civil society are now advocating that e-service delivery must be considered as a more viable, quick and efficient method for conducting transactions with the public sector and elected representatives.”

This paper examines the implications of e-government on information delivery services and the role that libraries may play in e-governance. This paper is mainly guided by observation and a literature review and is divided as follows: i) Part one attempts to unravel the concepts of e-government and e-services; ii) Part two discusses the trends and challenges of e-government and e-services in South Africa; iii) Part three discusses the implications of e-government and e-services on libraries; and iv) Lastly, the conclusion and recommendations are provided for the improvement of e-government services.

Understanding e-government and e-government services

As a field of research, e-government and its services have been investigated by scholars from various fields (e.g. Library and Information Science, Information Systems, Computer Science,

Public Management, etc.) as well as by many technical individuals/ specialists. This has resulted in numerous definitions of the term (Löfstedt, 2005:39). Löfstedt (2005:40) writes, “E-Government remains a knowledge field in its exploratory stages and is consequently difficult to accurately define. Furthermore, it encompasses such a broad spectrum that it is difficult to find one expression that specifies what e-Government really represents.” Fang (2002:4) views e-government as “a way for governments to use the most innovative information and communication technologies, particularly web-based Internet applications, to provide citizens and businesses with more convenient access to government information and services, to improve the quality of the services and to provide greater opportunities to participate in democratic institutions and processes”. Dawes et al. (2003:1) state that e-government involves the use of digital information technology to support government operations, engage with citizens, and provide government services. Misra (2006:2) claims, that beyond the variations in definitions, e-government is also perceived differently by people at different levels of organizational hierarchy (lower, middle and top).

Clearly, e-government thus refers to the use, by government agencies, of information technologies (such as Wide Area Networks (WANs), the Internet, and mobile technology) to extend its services to its citizens, businesses, and within the government itself (World Bank in Matthes and Kreutz, 2007). E-government is therefore about the use of digital information and communication technologies (ICTs) for the delivery of government information, programs and services to citizens. One of the markings distinguishing electronic government from public management or general ICT is the emphasis on digital ICTs. E-government, as presented in this paper, can thus be defined as the use of contemporary Internet/ web-based technologies for public service delivery. Millard (in Kitaw, 2006:55) lists these contemporary technologies to include the World Wide Web, eServices, IP-centric technologies, and mobile technologies.

E-service or e-service delivery thus shows a government’s willingness to provide services to its citizens in the quickest and best possible way. Traditionally, these services were delivered face to face by visiting a public office. Of course this type of service, which exists in cities, is not available in rural areas where transport is poor, roads are inaccessible, and government departments are scarce. Because of this, services are now increasingly delivered electronically to

citizens at home, at school or on the go without them having to physically visit government offices or buildings.

Government e-services are particularly important in rural areas, and the failure to roll out infrastructure/ a platform for e-government in rural areas has been identified as a major obstacle to attaining government e-services in the developing world. This divide between the 'e-haves' and 'have nots' is more commonly referred to as the digital divide (Riley, 2003:15). Harfouche (2010:73-74) identifies a new form of digital divide - the e-services divide - resulting from three types of inequalities: (1) Inequality in access to ICTs and to e-services, called the "e-access divide", (2) Inequality in the ability to use ICT and e-services among those who have access, called the "e-skills divide", and (3) Inequality between those who accept e-services and those who do not, called the "e-services acceptance divide".

Rationale for e-government research

The motivations for e-government and e-services have been well documented in contemporary literature. For one, e-government and e-services can be viewed from a supply and demand perspective. On the demand side, the desire for electronic services or the level of e-service use by people can be used to justify engaging in e-government, while on the supply side, e-government can also be a means to get citizens to access e-services. According to Bwayla (2009:2), "The use of the internet and web tools for supporting participatory actions in legislative processes, political or societal decision-making in governmental or communities' context, but also user friendly electronic government services [sic] is becoming a common practice, described by the general term e-Participation".

The benefits that can be accrued by countries that implement e-government have been widely highlighted in literature. For instance, the ITU (2011:23) recognizes the following as ideals for a country striving to become an information and knowledge society:

- Converged voice and data networks that empower text messaging, email and instant messaging;

- Options for e-government services, allowing online public access to government information, programmes and services;
- Access to social and educational services, including distance learning, tele-medicine, job training, cooperative extension and other public benefits;
- A revolution in business and commercial behavior, empowering telecommuting, accelerating e-commerce and innovating new virtual companies;
- A whole new universe of social networking, allowing individuals and groups to share information, pictures and contacts online; and
- A growing networked environment of appliances, automobiles and handheld devices that are 'aware' of their environs and can adapt their energy usage and other functions accordingly.

Specific to information delivery services is the fact that e-government services deal with information. According to Rowley (2006:340), "E-service can be usefully conceptualized as an interactive information service." Likewise Bwayla (2009:2) states that: "ICT in the context of e-government is looked at as a portal for information exchange or a platform through which decisions can be made." The two views above can be understood to mean that while service in e-government may require tangible effort, such as the improved collection of refuse, providing the elderly with their pensions, etc., they also all involve information and are therefore of interest to information delivery services (IDS).

Overview of e-government services in SA

A well synthesized analysis of e-government services in post-apartheid South Africa is provided by Wikipedia: E-services in South Africa (2012) as follows:

Various arms of the South African government have embarked on a number of e-government programmes, for example the Batho Pele portal, SARS e-filing, the e-Natis system, electronic processing of grant applications from remote sites, and a large number of departmental information websites. Also a number of well publicized e-government ventures such as the latter, analysts and researchers consider the state of e-government in South Africa to be at rudimentary stages.

There are various factors which collectively contribute to such an assessment. Amongst these, key factors relate to a lack of a clear strategy to facilitate uptake and adoption of e-government services as well as evaluation frameworks to assess expectations of citizens who are one of the primary user groups of these services.

The above shows that something is being done with respect to e-government service provision in South Africa, even though it is still in its “rudimentary stages”. The problem is that these minimal e-government services are generally directionless or lacking in strategy. In 2007, the Democratic Alliance (DA) called on President Thabo Mbeki to take the lead in ensuring that the government improves online access to its services (e-services), noting that the Batho Pele electronic gateway to government services had not kept pace with socio-economic changes globally and within the country, and of course in anticipation of the 2010 World Cup. Admittedly, a lot was achieved for the 2010 World Cup, particularly in improving infrastructure; roads were expanded, stadiums built, and network infrastructure developed. The main problem with these achievements is that while urban environments benefited greatly, rural communities were ignored.

South Africa is second only to Mauritius (UN e-Government Survey, 2010) in terms of e-government standing in Africa, but this should not lull South Africans into believing that they are doing well. While it cannot be denied that as a prerequisite for e-government implementation, SA has good network infrastructure in comparison to its African counterparts, South Africans cannot ‘beat their chests’ as there are still many rural communities with little or virtually no network access at all. This, coupled with poor literacy levels, compounds the already poor e-government setup. South Africa is a country in which information poverty and information plenty intersect. Many who know the situation in South Africa and appreciate its history know that South Africa is composed of “two nations”, as argued by former president Thabo Mbeki (Everrat, 2003:1). What separates these societies is well documented and is not the focus of this paper. Of concern here is the spatial divide between rural and urban communities. While urban-based citizens tend to enjoy limitless access to information, the same cannot be said about the rural poor. In some cases the rich and the poor live side by side, for example in commercial farming communities. Mtimunye (2009) writes that: “E-government in South Africa still finds

itself perched between performance and promise, as we still have to experience its full potential in the country.” Mtimunye acknowledges that the face and character of the ICT landscape in the country has radically changed over the last decade. This change is perhaps what people see and commend/ glowingly refer to.

An argument regularly raised against global measures of e-government is that they do not consider what happens at local level and therefore sometimes misinterpret the situation on the ground. The comments by the Department of Public Service and Administration (DPSA), quoted in Moyo’s (2011) article entitled “Depoliticize e-govt agenda, SA told”, provides a more candid picture, noting that SA still remains holed in the first stage of maturity of e-government. The PNC (2011) concurs, stating that South Africa remains at stage 1 of a three stage level of service maturity. Ngcakani, quoted in the article mentioned above (Moyo’s article), suggests that the success of e-government initiatives is best measured by the proportion of a country's population that has access to government services.

The fact that a large part of South Africa’s population is rural-based and has minimal access to e-government services means that as a country, South Africa falls short of the criteria proposed by Ngcakani above. A notable contrast she raises is that citizen-based e-government initiatives in SA are currently formalized and governed at national level, when in fact the most essential services are accessed by the ordinary citizen at grassroots or the municipal level of government. This increases the chances of failure of achieving e-governance and of e-government services reaching the people because they operate at a level that is too far removed from the people. There is therefore an urgent need to examine e-government service delivery at local level.

Borrowing from Kaisara and Pather (2009:5), the plight of “digitally marginalized communities” prompted the main investigation into e-government services in South Africa, and specifically rural KZN where the researcher is based. The main study is still a work in progress. In order to assess or evaluate e-government services in South Africa, it was important to first set a timeframe within which to identify and appreciate the government’s vision of e-government services. The timeframe for this paper and the main study is post-apartheid South Africa up to the present, which happens to coincide with scholars’ reported birth of e-government (1990s),

understood in this study to mean the application of digital (Internet and web) and mobile technologies by government and public institutions in the service of the public.

Identifying and understanding the government's plans is also important as this clarifies e-government initiatives and adoption constructs, and allows one to assess them constructively and in an informed manner against what the government is actually doing. This is what the main study will do extensively. For this paper, a cursory review of literature was deemed sufficient. Earlier in the paper it was suggested that in adopting e-government, a government shows its willingness to provide efficient and improved services to its citizens. In many of South Africa's State of the Nation Addresses and Kgotlas/ Imbizos - where government arms at various levels (national and provincial) meet to plan and/or present their plans to the people - e-government services are always mentioned either directly or surreptitiously. E-government can be implied without mentioning the term 'e-government' itself. Take for instance the 2012 State of the Nation Address, where the president Jacob Zuma spoke of the government's plan to embark on a massive infrastructure drive. This infrastructure, the government deems to be the backbone of job creation and service delivery.

Notably, the infrastructure in question consists not only of buildings, dams, bridges and roads, but also of networks. Policy decisions made all the way back to the days of the Mandela and Mbeki showed the desire to engage in e-government. For instance, Thabo Mbeki, while acting as the Deputy President of SA, is accorded the acclaim of first identifying the five pillars that underpin the building of an information society in South Africa (PNC, 2011). His vision, according to the PNC (2011), evolved into the strategy towards e-development and the information society in South Africa. It is from these early visions that e-government in South Africa started to take shape.

Since South Africa's e-government implementation is evidently in motion, the next step is to contemplate its future and effects. Harfouche (2010:73) recognizes that, "The implementation of e-government in developing countries can lead to a system where the greatest benefits from public online services will accrue to persons of high socio-economic status and education who may use their resources to employ the online services sooner and more productively than their less privileged peers." It is therefore important to check whether the same socio-economic

factors are not hampering progress, especially as they (socio-economic factors) manifest between rural and urban citizens. An overview of e-government in SA can be gained by asking and finding answers to the following questions for example:

1. What is the SA government's plan with respect to e-government and what e-government policies are in place?
2. How does the SA government plan to implement e-government, particularly in rural areas?
3. When and in what year?
4. What services does the South African government plan to offer?
5. What do they see e-government as a tool for?

The Pacific Council on International Policy (PCIP) (2002) document, "Roadmap for E-government in the developing world", lists 10 questions e-government leaders should ask themselves as follows: 1) Why are we pursuing e-government? 2) Do we have a clear vision and priorities for e-government? 3) What kind of e-government are we ready for? 4) Is there enough political will to lead the e-government effort? 5) Are we selecting e-government projects in the best way? 6) How should we plan and manage e-government projects? 7) How will we overcome resistance from within the government? 8) How will we measure and communicate progress? How will we know if we are failing? 9) What should our relationship be with the private sector? 10) How can e-government improve citizen participation in public affairs? Of the PCIP's list of 10 questions, at least one (question 10) addresses citizen participation in e-services directly.

Admittedly, these questions can be answered by conducting an extensive review of literature and analyzing available official documents. Simple recognized was that by understanding and providing answers to them a better appreciation of e-government can be obtained leading to effective implementation. I saw it fit to start by visiting the South African government's e-government portal (www.gov.za/) and KZN province's portal (www.kznonline.gov.za). South Africa's e-government visions and interventions are ingrained in development plans such as Vision 2014 and Vision 2050. In 2003, the Centre for Public Service Innovation (CPSI)

partnered with the Department of Public Service and Administration (DPSA) and the State Information Technology Agency (SITA) to produce a research document entitled the “e-Government Gateway Project”, which looks at ways of providing citizens with access to e-government services. From this research, a framework and strategy design for e-government were proposed. Seven potential models for e-government in South Africa were suggested, namely: 1) Smart service, 2) Smart plug in, 3) M-government, 4) Government online, 5) Centre services, 6) Talk to government, and 7) Computerized counter services. Based on the suggestion of CPSI, these models could be combined and/or integrated upon implementation within an e-government access value chain. Some may offer immediate rewards while others would bear fruit after a medium or long term. All these and other factors are critical when making decisions about implementation.

At local government level, where one actually encounters the users of e-government services, it would seem some level of adoption takes place. For example, the South African Local Government Association’s (SALGA) Department of Economic Development and Planning (2011), states on its website the following objectives with respect to ICT:

- To ensure the necessary representation of the voice or position of the local government in the ICT Policy and Regulatory Environment
- To focus on the access, provision and maintenance of ICT infrastructure to ensure universal access at local level
- To facilitate the effectiveness of e-government services and content at local level
- To promote digital inclusion and e-awareness
- To contribute to municipal transformation and improved service delivery through the effective use of ICTs
- ICT skills development and capacity building

SALGA further outlines what may be described as plans for the assessment of e-government and ICT awareness

- Preparing a report assessing the extent of diffusion and trends of ICT and e-services at a municipal level (National Municipal Assessment)
- Municipal government's e-readiness position paper and research report

There is therefore enough evidence to show that e-government is part of the South African government's development plans. The study (main study), which seeks to, among other things, interview relevant government officials, is therefore relevant and timely.

Implications of e-government on library and information services

Research in e-government is particularly important in terms of the role that information delivery services can play in bridging the digital divide. Some of the lessons learnt from e-government by the information delivery sector may be new, while others may have just become heightened. South Africa's high rate of cell phone connectivity - 86 per 100- as reported by Sutherland (2008:8), over two-thirds of all adults by Mapham (2008:11), more than 60% of all those above the age of 16 by Kreutzer (2009:1) and 83% of the population by Itweb (2008) - and its increasing Internet connectivity and access, particularly through mobile devices, is breeding users accustomed to obtaining services electronically, whether through e-government (services from the government and public institutions) or e-commerce (electronic transactions between businesses and clients). These users are also users of library services. Examples of common e-services today include:

- Cell phone and Internet banking - the latest additions to the convenience banks now offer to clients
- Travel bookings - online booking of tickets for buses, planes and accommodation
- Income tax returns – the South African Revenue Services affords, through its website, the opportunity for citizens to register for and file tax returns online (www.sarsefiling.co.za/)
- Education - for a long time now, many institutions have been offering distance learning. UNISA, the biggest university in Africa, offers its programmes through a platform that involves a great deal of e-services and has shown innovativeness in how it has gone about handling its business. It now offers its services to the greater part of sub-Saharan Africa.

Across the world, the market for obtaining degrees via correspondence or completely online is growing, and the response by universities is visible. Today, institutions exist that offer online degrees, such as Phoenix University and DeVry University.

- Home affairs -this is one of the government departments where e-government's impact is hugely felt by citizens. It has introduced the track and trace system which allows clients to follow the progress of their applications (ID, passport, permit applications, etc.) through Short Message Service (SMS). Above the usual link to application forms, there is the visibility of senior staff in government websites. This affords citizens the opportunity to report corruption, seek clarification, and link to documents that can provide them with further details.

By and large, e-government services have lessons that we can draw from in the information delivery field. Some of the implications of e-government services to information delivery are:

- **New perceptions of service.** Improved service delivery because ICT in the business sector and in the government also places greater demand on traditionally non-profit organizations like libraries and related institutions as much as it does on those that are pro-profit. Many say that the increased use of ICTs goes beyond just offering a service to improving the value of that service. We in the library world need no reminder that when we do not deliver, users will move elsewhere. Competition has risen with the information explosion as many establishments have cropped up that now offer library services, and perhaps much better than libraries do. Lately, even we in academia have been pushing our students to venture into infopreneurship to help ease the burden of jobs faced by the traditional library employers.
- **The need for connectivity.** While in the past we survived by offering physical access to information material and library services, users quest for things e- (electronic) underline the need for connectivity. UNISA has already set the bar by offering mobile access to some of its library services. In general, many libraries understand this shift and have gone on to retrospectively automate existing collections for this very reason. Libraries have

continued to stock physical material, but this is invariably lower than what is spent on licensing for electronic information (databases, institutional repositories, forums, etc.)

- **The here and now approach to service.** Fast, rapid information service delivery in the modern world has come to be expected. A feature of the younger generation of users that the library sector serves is their here and now approach to everything. We learn from the e-government concept that clients are impatient, something older folk believe is tantamount to the erosion of values. They want their information and services to be made available quicker, easier, and with less fuss (the Google generation). If they cannot obtain the information they want when they want it, they will abort the search or move elsewhere. As a young adult myself and having observed college student behavior, I feel that this is the very reason why search engines are ‘everyone’s’ preferred search tool. Information services’ efforts to curb or conversely accommodate this noted behavior include the linking of institutionally held databases, for example, to popular search engines such as Google. In this way, users can remain in their comfort zone while still being able to access valuable sources of information (Accessing database material through Google).
- **Mobility (anytime, anywhere culture)** is offered most optimally by mobile devices and wireless technologies such as Wi-Fi. It has been noted from e-government services that sometimes citizens cannot visit public institutions for the simple reason that they are not present where they stay. At times even when present, staff attitudes and queues can be a deterrence. The same applies to libraries, perhaps even more. The number of libraries in South Africa compared to government departments, through mere observation and professional judgment, is much less. It can also be argued that governments are generally viewed as critical to everyday survival, an argument that still requires the convincing of many when applied to libraries. If, for critical government services, citizens dread visiting departments and offices, they could very well have similar feelings towards visiting libraries. The lack of a reading culture and the illiteracy of a large number of the population mean that libraries need to work harder to reach people. In spite of these observations, an increasing number of the population is technology savvy and keen to use

e-services, perhaps pulled by social media which requires minimal literacy. In social media, language and numeracy proficiency does not matter (terms such as lol, gud, skul, gr8, lmao, etc.). The danger lying in this observation is the likelihood of e-government services serving the elite few given the e-services divide mentioned earlier. If well thought out, mobile access can improve access to information and services, particularly in previously unserved and underserved areas.

- **User friendliness/ comfort to users.** The simplicity of gadgets such as cell phones has allowed many to join in e-participation. With laptops and desktops, cabling can be complicated and requires someone to be close to a power source, which can also be an obstacle to e-participation. Cell phones, on the other hand, are generally handy, much easier to use and can go for long periods without requiring to be recharged.
- **Improved user experience.** A commonly raised argument for e-services in the e-government field is that when services are offered electronically, they are also improved. Electronic services can be provided in various formats because of multimedia. For instance, when digitized, print information (text and images) can be offered with added hyperlinks for a user to explore in addition to sound and videos which generally makes the information much better, thus improving the users' experience.
- **The need to have the right mix of infrastructure, human capital, online services and e-participation.** The ultimate success of e-delivery is not simply determined by the existence of ICT but also by the critical mix of the right people to offer the service (qualified staff), the relevant services to offer (which requires content development), and the desire to use the services provided. We have learnt from e-government scholars and implementers that e-government is not focused on the 'e' (CPSI, 2003; PNC, 2011)
- **Instant communication through social media.** Web 2.0 technologies have introduced a cheaper way for users to offer their input and share their thoughts. Social media has since been adopted as a tool for marketing, but equally for slacking off. It has brought power to clients through forums and pages where they post their feeds or comments.

- **Creating awareness and communication.** A well-designed program can fail when people are not involved or motivated to buy in. Achieving the buy in requires a great deal of awareness and communication.
- **Creation of commonalities through the removal of barriers (social, cultural, racial and otherwise) - online we are all the same.** Culture, race, religion, etc., do not play a role anymore. The information field can exploit this behavior in offering its services. When serving clients online, who they really are matters less; the web does not discriminate, unlike when someone is served face to face.
- **Users are defining what information they need.** Electronic services have given all and sundry a voice. The biggest lesson in this is that unlike before when users accepted what was offered to them, now they shape what should be provided to them.
- **Information deluge.** With the migration of information to the online environment, the amount of information available to users has increased. The soaring amount of information and increasing options for users also introduces problems that information providers need be aware of. Beyond locating the right information, information clients now require the skills/ ability to be able to understand and use this information. Industry experts, perhaps more than governments, have found ways to gather and exploit this abundance of data. For example, credit card companies monitor every purchase and mobile-phone operators analyze subscribers' calling patterns. It would seem that the critical decision is to know when to restrict or encourage the flow of data to suit clients. Within the information field, the same information deluge is felt and critical decisions can be assisted by first appreciating the phenomenon.

Concluding remarks and recommendations

E-government services are information services provided by the government through the use of ICTs. This technology facilitation of government programs (information programs) to citizens leads to the improved delivery of information and services (e.g. refuse collection, tax returns, ID applications, etc.). In essence, the argument in favour of e-government services is that by accessing information from the government through technology, the lives of citizens are improved. The paper has argued that e-government is of concern to information delivery services

for the sole reason that e-government is about information. Lessons that can be learnt about information services, regardless of where they come from, are essential to information delivery. The government, like the information field, is service oriented; therefore the implications of e-government to information delivery would bear resonance. E-government service implementation is in motion in South Africa, albeit fraught with challenges. Several divides were noted in this paper that affect e-government, namely the digital, e-services and socio-economic divides. These divides are best felt when comparing South African society spatially, in looking at rural versus urban communities. Be that as it may, it is a foregone conclusion that library users are becoming accustomed to receiving electronic services from the government through e-government and from businesses through e-commerce, and therefore approach information services with the same mindset. They will therefore demand, among other things, the same high quality, variety of services, expediency and speed. It would be the folly of information delivery services not to exploit the evident e-readiness of the societies they serve by providing relevant services, albeit mindful that certain groups may still be affected by the e-services divide. The implications noted in this paper can be grouped into the following categories: technological issues, access issues, service type, time, human skills, connectivity, content issues, media type and promotion issues, among others.

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