# **Globalization and Information Technology: Forging New Partnerships in Public Administration**

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# Globalization and Information Technology: An Overview of Issue

GLOBALIZATION means new market, particularly for those who are economically well developed. This is the fact. And information technology is one of the technologies fostered to the new market in this increasingly competitive world. The implication of this basic argument could be found in many other sectors, both within the private and within the public sectors.

In the private sector, globalization has revolutionized internal management. It has also made easier the interaction between countries, regions and continents, thus contributing to profitability. It is the private sector's philosophy that propelled efforts to utilize every means, including information technology, to make companies survive, even the biggest and the most powerful company in the world.

Even though globalization and information technology had been widely accepted as two sides in one coin, this paper argues that there are three factors, which counter the inevitable movement towards globalization. Firstly, the incremental force of technology is flawed. Secondly, the imperialism of technology overcoming all barriers fails to reconcile the cultural dimensions of both the developing context or the application domain. Technology is not culturally neutral but is developed in a cultural context and in the case of information rich countries, IT applications carry that cultural context within their designs. Applications of culturally developed systems, such as office and management systems assume the user's compliance with the design culture, but this inevitably leads to cultural clashes when the systems are applied outside the design context.

Thirdly the assumption of universality of economic access and development is incompatible with both the reality and development paths in both developed and developing countries. This inevitably will lead to a divided society split between the internationally mobile, technology-supported communities and those communities that are disadvantaged economically and technologically but are culturally rich.

The failure to bridge this gap may leave society as a whole weakened through lack of access to 'variety.'

The global information infrastructure mostly comes from the developed countries. Thus, the inevitable question is whether it signals empowerment or imperialism of and for the developing countries? Electronic imperialism and colonization has become new terminology in this increasingly competitive world marketplace. Utilization of IT could not be achieved if having empowered developing countries, they are colonized thereafter. What is needed is the empowerment of our own culture, norms, values, customs, and social capital, which could be the most effective means to face this new type of colonization and uncertainty in this period of globalization.

## Information Technology and Public Administration

IT revolution is sweeping the globe. Governments willy nilly are being drawn into it. Transition to electronic delivery of services in government not only involves changes to the systems, procedures and processes of relevant services but also in the way in which the public and business community deal with the government.

The idea that Information Technology (IT) can be an enabling force, not only for business and trade but also for government, has now been widely accepted. However, a cursory glance at the existing initiatives in developing countries seems to suggest a mixed picture. With the exception of several worthwhile utilization of IT in particular sectors, IT applications seem to have had no remarkable effect on the manner in which citizens benefit from the services of the government. Against this backdrop, the efforts of the developing countries to harness Information Technology seem like a major initiative to deliver an improved administration.

Current trends in public information management focus on traditional concerns over the efficiency and performance of public agencies. However, innovations in information technology and policy, including data warehousing, civic networking, and the internet, provide a unique opportunity to create external public organizations which emphasize democratic participation in the processes of governance. Planning for cyber-management now and in the future must consider the factors of externalization and political interactivity in order to integrate the delivery of services and increase citizen access to public information.

Much of the current discussion of cyber-management and public administration focuses on the ways in which IT can be used to increase efficiency and performance within public agencies at the central, state or province, and local levels. However, these new technologies might also be employed by public agencies to engage citizens in the planning and policy-making process for the purpose of enhancing both democratic participation and government responsiveness to citizen demands.

Cyber-management strategies must utilize IT to transform public agencies into externally oriented organizations that promote partnership and collaboration between agencies and across the public, nonprofit, NGO, local agencies, business enterprises, civil institutions, and private sectors in governance. More importantly, technology-driven external organizations in the public sector may provide more effective means of civic interaction with institutions of governance.

This paper examines current trends in the management of public information and communication systems within the theoretical context of externalization. We discuss the

ways in which data warehousing, government web sites, and internets can be geared toward improving citizen access to information and creating new opportunities for civic engagement in policy-making. Implicit in our discussion is a belief that all citizens should have fair and equitable access to emerging forms of cyber democracy in order to avoid information redlining and limited civic engagement only by a technological elite.

The relationship between information technology and the management of public information can be characterized as an extension of the traditional view within public administration theory, with efficiency and performance as the benchmarks for success. Despite the "buzz" in some government and scholarly circles over the radical possibilities for change credited to Internet-based communication strategies, the management of public information systems remains focused on two narrowly defined goals: (1) centralization of public data and (2) electronically-based internal communication systems. Though important, these goals distract practitioners from the incredible opportunities afforded by new technologies to transform public agencies into externally oriented organizations, which actively engage citizens in policy formation and implementation.

A brief review of the recent trends in public information management provides the reader with a better understanding of the limitations of current IT strategies in the public sector.

#### Data Warehousing

Data warehousing represents a recent innovation in both corporate and public sector information management. A data warehouse is a centralized database of information accessible to a large number of organizations or a group of departments within a single organization that previously maintained separate data sources. According to Aden (1997: 28), a data warehouse encompasses more than simply the store of electronic data itself. Instead, data warehousing for the management of public information includes five major components: (1) the acquisition of pre-existing operational data stores; (2) procedures for converting these data stores into a standardized format for inclusion in the data warehouse; (3) creation of the data warehouse; (4) the design of the electronic tools which provide the user interface for data query and information retrieval; and (5) administrative tools and procedures for maintenance and system optimization.

Data warehousing allows for increased efficiency and performance by reducing the costs of data collection and storage and by facilitating employee access to information. For example, Delaware prioritizes the integration of public services across state and local government agencies via a strategic plan for centralized data warehouse of client information and program activities.

However, other states and local government agencies automate data archiving within individual agencies via "data marts." Data marts "deal with departmental data which is well understood, familiar to those who deal with it everyday and much more limited in scope" (Aden, 1997: 29). Both data warehouses and data marts may contribute to efficient management of public information. However, data warehousing rarely incorporates a

strategy for public access to public information. With the recognition that not all government data is appropriate for public access, democratic processes of government could be enhanced by providing greater public access to sources of electronic information necessary for informed participation in the policy-making process. Therefore, public access to data should be acknowledged as a sixth major component of warehousing model. Data systems closed to both the public and to other public agencies do little to alter the "internal" structure of most government organizations.

## World Wide Web

Similarly, World Wide Web sites maintained by government agencies tend to be avenues for public relations rather than instruments to externalize their organizations. A comprehensive study of municipal and local government web sites conducted by Nunn and Rubleske (1997), a content analysis of several sites nationwide, revealed that most sites were simply electronic address books for contacting government officials. Few sites capitalized on the interactive nature of the Internet to conduct public discussions, maintain bulletin boards, or provide data and information available for download. These scholars conclude that links to electronic mail addresses of public officials may improve slightly the opportunities for public dialogue, but that in general few sites are producing valueadded public services via these electronic forums. Of course, criticism of the content of government web sites begs the question of whether the public would even desire such forms of electronic interaction with state and local governments. Dutton, et al. (1987) argue that citizens may respond more positively to new forms of civic engagement via IT when the political culture, policies, and traditions in a given sphere of public activity encourage such interaction. Information sharing and open lines of communication with the general public must therefore join efficiency and performance as indicators of technology-based, public information management strategies.

#### Intranets

Finally, a third trend in contemporary public information management are Intranets. Intranets centralize electronic mail services and access to agency information to employees via Internet-based technologies. Intranets definitely speak to the goals of efficiency and performance in public administration. One might readily envision the day fast approaching when data warehousing, web sites, and Intranets become a unified IT structure for central, province, and local government agencies. However, the transformation of public agencies into externally oriented organizations requires that these electronically-based public information systems provide greater access to both the general public and the other government agencies. New developments in public IT strategy should emphasize civic engagement for the former and inter-agency collaboration for the latter.

Unfortunately, the dominant political culture regarding public information management continues to be heavily focused on internal agency efficiency and performance. The danger in conforming to this traditional paradigm in public administration is that the exciting opportunities afforded by the Internet and other innovations in IT for creating external organizations and encouraging civic engagement in the policy-making process will be lost. These opportunities may be understood in two broad theoretical terms: electronic intergovernmental collaboration and cyberdemocracy.

Electronic intergovernmental collaboration involves the optimal use of technology for the exchange of resources, information, and communication among government agencies and with interest groups, the media, and the citizenry. Cyberdemocracy promotes public participation in the processes of governance via Internet-based communication technologies. Both concepts call for a break from the traditional view of public administration. Instead, the values of efficiency and performance must be fused with the equally important concepts of externality and political interactivity to guide the application of IT to public administration now and in the future. Before these concepts and associated strategies for implementation are explored in more detail, it is necessary to examine the need for public agencies to undergo a transformation from internal to external organizations as we enter a new century of electronically-based governmental activity.

## IT and External Public Organizations

The concept of an external public organization stems from the recognition that, in contemporary society, government agencies no longer operate within a single functional area. Public calls for service cut across agency and sectoral lines, prompting public organizations to enhance their capacity for communicating and interacting beyond traditional bureaucratic structures. Thus, the administrative environment is no longer restricted to each organization's respective purview; instead it is characterized by interagency decision-making and a sense of shared accountability (Denhardt, 1997; Chapin and Denhardt, 1995; Bryson and Crosby, 1992). This changing environment carries important implications for public administrators.

First, public managers increasingly must establish more flexible, interactive relationships with agency personnel, stakeholders, and other organizations (Mankin, Cohen, and Bikson, 1996; Mintzberg, et al., 1996; Mintzberg, 1996; Agranoff, 1991). As trends in human and social services indicate, such relationships require participating agencies to move beyond mere cooperation and coordination and toward an integrated, systematic form of engagement throughout the policy process. Consequently, public-, private-, and third-sector organizations have moved to deconstruct agency boundaries and to link themselves in collaborative partnerships (Daka-Mulwanda, et al., 1995; Mohrman, Cohen, and Mohrman Jr., 1995; Voydanoff, 1995; Kinney, et al., 1994; Marzke and Both, 1994).

In turn, interagency collaboration contributes to a change in the way public organizations measure performance. Rather than focus purely on agency efficiency and program monitoring, externally-oriented agencies assess the role they play in a broader system of service delivery and policy decision-making. The key principles center on the effectiveness of these agencies, and the overall partnerships, in meeting citizen-based outcomes. This produces a level of accountability shared between the partner organizations (National Commission on State and Local Public Service, 1993; Thompson, 1993; Bryson and Crosby, 1992).

Information and related technology plays a crucial role in this emerging administrative environment. Though some reduce IT to being simply a source of managerial control (Perry and Kraemer, 1993), the vision expressed here of an external orientation for public organizations places IT at the foundation. Public managers can use IT to enhance interaction among agency staff, as well as with stakeholder organizations. While technology should not be considered a panacea for interorganizational collaboration, effective use of IT can facilitate a team-based approach to public service and policy decision-making (Mankin, Cohen, and Bikson, 1996; Percy-Smith, 1996).

Likewise, IT provides a framework for enhancing public accountability from government organizations. A technological infrastructure can make information regarding administrative processes more accessible, thus offering citizens an increased capacity for participation. The role of IT here goes beyond data collection for performance monitoring. Instead, it supports an outcome-based mode of accountability that measures the impact of policy at a citizen and community level. Citizens and other stakeholders interact through channels created by IT, as a means of assessing the effectiveness of public organizations. Consequently, the public is able to give important feedback to public managers to help improve decision-making and service delivery (Percy-Smith, 1996; Sawicki and Craig, 1996; Hendrick, 1994).

The potential effect of IT in this emerging environment is to foster a more responsive form of administration and public service (Percy-Smith, 1996; see also Block, 1996; Van Wart, 1996; Cooper, 1991). Grossman (1995:248) wrote, "Through interactive technologies, new opportunities are becoming available to get members of the public engaged in resolving the issues that directly affect them." Expanded means of communication and interaction allow government agencies to move away from the internalism and the institutional barriers that traditionally separated them from their external environment. These organizations have been empowered to form more meaningful relationships with citizens – a cornerstone for responsive governance (Chapin and Dendhart, 1995; Berry, Portney, and Thomson, 1993; Richter, 1991).

Public managers, through IT, can interact with citizens not as sources of legitimation but as co-producers in a broader, shared-power system of governance (Berry, Portney, and Thomson, 1993, 1989; Bryson and Crosby, 1992).

## **Opportunities for Electronic Collaboration and Public Democracy**

The view of IT strictly as a mechanism for fostering efficiency and performance within public organizations remains problematic. Such a concentration limits the potential of this resource to a means-end role within the existing organizational framework. Information and related technology becomes another gadget in the manager's toolbag, rather than a spark for fundamental change in public agencies in which it is capable. In contrast, public organizations may adopt IT as a foundation for abandoning the internalism that characterizes traditional administrative structures. As the previous discussion indicates, this would enable public agencies to develop an external orientation, marked by greater collaboration, enhanced accountability, and responsive decision-making. By

adopting this orientation, public organizations could effect more meaningful forms of engagement with citizens and the institutions of governance. What follows are a series of recommendations for enhancing the potential of electronic collaboration with both agency peers and other political actors and creating innovative strategies for embracing cyberdemocracy.

#### Civic Networking

Much has been written about the success of the community networking model for the development of online socio-political activism in towns, cities, and counties in the United States (Doheny-Farina, 1996; Schuler, 1996; Rheingold, 1993). A community network is defined as a low-cost, easy-to-use computer network that provides citizens with access to electronic mail, public bulletin boards, and electronic information relevant to their locality. According to Schuler (1996: 25), community networks "are generally intended to advance social goals, such as building community awareness, encouraging involvement in local decision-making, or developing economic opportunities in disadvantaged communities." Increasingly, many community networks are becoming more sophisticated in both content and administration. In terms of content, some networks are beginning to offer citizens access to computer-aided instructional education courses, the Internet, and Geographic Information Systems (GIS) containing pertinent local information (Kreig, 1995). In terms of administration, many community networks are growing to the point that private consulting firms, public libraries, and local colleges and universities are coming forward as community partners for the purposes of professional network administration (Schuler, 1996). As the rise of comprehensive community networks parallels the development of unified IT systems in the public sector, it seems appropriate to capture economies of scale and political value by integrating community and public information networks into true civic networks. Civic networks should be conceptualized as public information networks created and maintained by state and local government agencies in partnership with community leaders, appropriate interest groups, and local colleges and universities.

Civic networking represents an exciting opportunity for public agencies to experiment with the model of external organization while providing a valuable information service to the communities which they serve. For example, Diamond.net is a civic network whose mission is to enhance collaboration and electronic communication among the state of Delaware's citizens, nonprofits, community-based organizations, and state and local government agencies. Services provided free to any person in Delaware with access to a computer and modem include worldwide electronic mail, public bulletin boards, file transfer, and limited fax capabilities. Diamond.net is hosted by the University of Delaware in partnership with the Delaware Association of Nonprofit Agencies, the Division of Public Libraries, and a number of other public and nonprofit agencies. Approaching nearly two years online, Diamond.net symbolizes the potential for collaborative networking across public agencies at the state and local level. A comprehensive evaluation of Diamond.net and similar efforts in other states should be a research priority for practitioners and scholars of IT and public information management in the near future.

The operationalization of government agencies using electronic means (computer) is called E-Governance. Given the extraordinary pace of changes in the IT industry, the term E-Governance itself is somewhat new and essentially implies upgrading the efficiency and effectiveness of the administrative machinery through the combination of information technology and sophisticated multimedia to deliver better, cost effective and speedy services to the citizens.

In E-Governance, the transition to electronic delivery of services will not only involve changes to the systems, procedures and processes of the relevant services but will also affect the way in which the public and the business community deals with the government. Customers will no longer need to interface directly with government officials in order to secure a particular service. They also do not need to know which agency is the service provider, as the service can be obtained through a kiosk or personal computer. What is important to them is to be able to secure the required service speedily and easily. These new trends will influence the nature of government administration and management, thereby reinventing the government to make its experience seamless to the citizens.

The process of computerization is an expensive one. It is imperative that in a situation of scarce resources of the state, a systematic approach to introduction of computers and their effective use is adopted so that the scarce resources are not wasted in the acquisition of sophisticated high-end systems which lie around and end up with low utilization. The process of introduction of IT is not simply of automating the manual processes. It has to go in tandem with an overhaul of the existing manual processes so as to maximize the benefits of the use of new technology. Given the fact of such extraordinary technological change, greater innovations are possible.

The World Wide Web is only a few years old and has witnessed explosive growth in terms of the number of people connected and the amount of information available on it. It is now possible to make available an enormous amount of information to anyone with access to the Net and, increasingly, to carry out a variety of transactions from filling in and sending forms to ordering and paying for goods and services on-line. We need to harness the potential of the technologies available. But it is not simply a matter of creating web-based content: the content has to be useful, it must be easy to access and updated regularly. We also need to take special care to ensure that use of IT does not create a new class of haves and have nots. While, on the one hand, we increase the use of computers, we must also ensure that they are accessible and functional in the rural or remoter areas. This is extremely important because the technology makes it possible for a person in the remotest of areas to have access to the same information base on the internet as someone located at the heart of the most developed cities. However, if the rural communications and networking infrastructure as well as 'information booths' are not put in place, the technology is of no use to the people living in those areas.

The recent advantages in information technology have opened up opportunities to provide basic government services to a much broader segment of the population with optimal quality at the desired time, place and cost. Some of the state governments have taken initiative to develop "one-stop shops" to deliver a host of services to the citizens, such as, domicile certificates, driving license, payment of property tax, electricity and water bill, etc. Similarly information kiosks with Internet connectivity are being integrated with the ISD/STD booths. All these are commendable initiatives to provide seamless governance at the door-steps of the citizens. However, for these mass customization efforts to succeed on a large scale, there is need to build capacities in government at all levels. The Government of India has, therefore, decided to set up a National Institute of Smart Government to be the focal point of this capacity building exercise.

All reforms require a clear vision, leadership and a considerable amount of effort to bring about systematic changes in organizations so that their performance is improved and they create better ways of delivering services to the public. We need to harness the innate creative and innovative abilities of our colleagues and subordinates so that there is a collective and collaborative initiative to bring about the changes that technology has now made possible.

Having shown of how IT could be utilized for the benefit in the real field of public sectors, the following part is how new partnerships could be established under this technology.

## How to Forge New Partnerships?

The type of partnerships in public administration would be discussed in this section. The how has already been discussed above. The partners are local agencies, private sectors, business enterprises, and civil institutions.

To concentrate because of the scarce resources on critical issues, we should set priorities for the activities and operations and through strategic focus, internal reform, in this kind of partnership.

Local agencies are the parties who know best concerning with the local issues. Implementing poverty alleviation initiatives, for example would be more successful with their participation. Data and other related information could be gathered, provided, and discussed by both parties. Effective assistance will require the establishment of formal partnership arrangements with nongovernmental actors who can provide the expertise and resources necessary for implementing programs in the field. Monitoring of implementation could be carried out through the means of IT.

Private sectors have a role in, partly or entirely, implementing projects. Quality maintenance and monitoring of the project could be carried out through IT by the authorities. Public-private partnership has been a model in this new democratization and reinventing government era.

Local institutions have the role in building local capacity. An understanding of the nature of institutions (i.e. what rules govern the interaction of individuals) is as important as the introduction of technological innovation. Local institutions represent valuable social capital that should serve as the basis of local self-governance. Because many development problems extend beyond a single locality, communities must establish cooperative links on many different levels. Practitioners (rather than consultants alone) should be used as advisers.

Business enterprises have the role in financing sector. When the public needs public facilities, for example, and the government lacks the budget, a private enterprise could build them under a certain arrangement. For the certain period of time the enterprise could take certain advantage from the construction. All of these things could be stored in the data warehouse.

However, under the auspices of the initiative, the plan to deepen its cooperation with UN-system partners is necessary to be considered, for example with UNDP. UNDP's strong country presence and mandate to support and coordinate UN activities at the national level for promoting economic and social development makes it an important body from which the cooperation could be sought. Through strengthened collaboration between EROPA and UNDP at the country level, both organizations can provide effective support for the development of the member countries.

UNICEF, ILO, WHO, and UNESCO. With UNICEF, we could collaborate in the collection and analyses of social and economic data as a tool for monitoring poverty, particularly as it pertains to the socio-economic situation of our people.

With ILO, who share responsibilities as lead UN agencies in poverty reduction for the UN Special System-wide Initiative on Poverty, we can collaborate to promote informal sector and employment-generating strategies.

With WHO, we can work together to put forward fiscal policies that benefit health sector development in the region. This will also strengthen past collaboration in raising awareness about the socio-economic impacts of HIV/AIDS.

With UNESCO, we can cooperate by utilizing information technology for development, promoting basic education, building the capacities of civil society to ensure good governance, and promoting science and technology exchanges, including South-South cooperation.

# Conclusion

Many potential partners possess extensive networks, a history of building institutional capacities, and the insight born of experience and goodwill that EROPA needs.

- Together we can jointly identify and approach challenges facing the member nations.
- Together we can exchange ideas.
- Together we can move forward on key issues stymied at the political level.

- Together we can strengthen cohesiveness at a time when we feel marginalized and divided.
- Together we can multiply human resources for tackling development issues and utilize the depth of talent in the region.

EROPA will build on its well-established history of collaboration with sister agencies in the UN System. With its strengthened institutional capacity, EROPA must be ready, now more than ever, to assist UN agencies to meet their mandates and carry out their activities in the region. In this regard, EROPA's work program for the next five years provides abundant opportunities that will enhance UN programs and help avoid duplication.

From the above experiences it can be concluded that public management needs are at the forefront of the United Nations system concerns at both the sectoral and crosssectoral national policy levels. These experiences also demonstrate an increasing global concern for efficient public administration for development. Finally, the need for a coordinated system so as to efficiently provide assistance in public administration to the Member Countries is also clear.

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