E-governance
Its many benefits

M. LUTFAR RAHMAN

E-governance or electronic governance concerns delivery of government services and information to the citizens by electronic means using information and communication technology (or ICT). ICT facilitates efficient, speedy and transparent processes for disseminating information to the public and other agencies. Imagine a situation in which interactions with the government can be made through one counter 24 hours a day, 7 days a week, without waiting in queues at government offices. This is possible if e-governance is implemented and electronic means are made available to access the resources through the Internet. A citizen can then contact with the government through websites where forms, notices, news and other information are available 24 hours a day 7 days a week.

This short article presents e-governance, its benefits, its components, and its phases of development. It also points out readiness for e-governance its current state in Bangladesh.

Components of E-governance

Major components of e-governance are G2C, G2B, G2G and G2E. G2C (Government-to-Citizen) involves interactions of citizens with the government. Examples include payment of utility bills or downloading forms through the Internet. The e-Citizen Portal of Singapore is one of the most highly acclaimed G2C sites having specific entry points for teenagers, adults, senior citizens and foreigners.

G2B (Government-to-Business) involves interactions of business entities with the government. Examples include tax filing or government procurement process through the Internet. G2E (Government-to-Employee) involves interactions between the government and government employees for services covering salary, pension, and vacation etc.

G2G (Government-to-Government) involves interactions among government officials. Examples include using e-mail for communications or customized software for tracking progress of government projects. A popular G2G service is e-Police System in Karnataka, India, which has an electronic searchable database of various types of police records. It is G2G which is generally referred to as e-government.

Benefits of E-governance

E-governance offers numerous benefits and advantages for government, corporate sectors and society. E-governance facilitates better delivery of services to citizens, improved interactions with business and industry, citizen empowerment through access to information, and efficient management. It improves internal operations and performance of government departments while helping all sections of society to avail government services at a lower cost with maximum ease of use. In short, e-governance facilitates "any time any where" accesses to the government resources.

E-governance enhances government efficiency in innumerable ways. For example, using video-conferencing, important meetings can be held without physical movement of officials. This saves time and money for officials. With electronic exchange of data and information, communication among officials can be much faster than before. Instant electronic accesses to data and automated report generation facilities from complex databases enhance government decision-making at a speed not possible with conventional methods.

Faster and informed government decisions can help avoid huge amount of economic loss. Also, if government forms and other procedural information are made available online, then time and money wasted to get these from government offices can be vastly reduced or totally eliminated.

The most important benefit of e-governance is empowerment of citizens. Through transparent information about government procedures and responsibilities, citizens become aware of their rights. The government machinery should be transparent provider of services to citizens. E-governance allows the government to serve better, and allows the citizens to demand more from the government.

Cordial relationship between the private and public sectors has significant influence on the business environment of a nation. E-governance enhances that relationship to be friendlier and interactive. Through e-governance, one-stop services for businesses can be provided and important information for policy changes can be disseminated quickly.

E-governance can encourage the private sector to effectively move towards the use of ICT. Online government tenders and announcements encourage suppliers to interact through the Internet. E-governance prides a very strong impetus to modernizing business activities in the society. E-governance produces a major thrust in making citizens aware of ICT and the Internet. For example when citizens can get bills and see examination results online, they can feel the power of ICT and the Internet in reality.

With the spread of globalisation, enhancement of national image is more important than ever before. E-governance is representative of a nation's maturity and effectiveness and is the visible and effective tool of modernisation and transparency in the government.

E-governance Maturity Model

Four phases of e-governance maturity model are information, interaction, transaction and transformation. Information phase is about presence of the government on the web providing public with relevant information. In this phase the government information is publicly accessible, processes are described, thus improving democracy and citizen empowerment.

In the second phase, interactions between government and the public are stimulated with activities like asking questions using e-mail and downloading forms and documents. These functionalities save time and money through operations any time from anywhere.

In the third phase transactions can be done online without going to an office. Examples of such online services are filing income tax, filing property tax, extending or renewal of licenses, visa and passports, and online voting. Phase three is complex because of security and authentication issues. Digital signatures and other security services are necessary to enable legal transfer of services. For this phase, internal G2G processes need to be redesigned. Government needs to create new laws and legislation for paperless transactions with legal certification.

The transformation phase requires all information systems to be integrated and the public can get G2C and G2B services from a single counter. One single point of contact for all services is the ultimate goal. This necessitates changing culture, processes and responsibilities within the government institutions. Government employees in different departments have to work together in a seamless way. In this phase, cost savings, efficiency and customer satisfaction should reach the highest level.

Common Misconceptions

There are many who are resisting e-governance owing to lack of awareness and fear of the unknown. In this connection, few common questions are: Will e-governance change government processes? Will sensitive and confidential data be lost or stolen? Will people lose jobs if e-governance is implemented?

E-governance strengthens and makes existing government processes efficient. It does not change the existing hierarchical structures. It however encourages new dimensions of cooperation and relationship among different government offices using improved communication tools and technologies

Digitally converted government information need to be carefully stored and guarded against unauthorised accesses. There are ways of keeping back-ups and ensuring security by digital authentication of users. In fact digital storage is not riskier than filing of paper documents.

A minor section of people may be redundant and may even lose jobs if e-governance is implemented. Although some manual tasks will be eliminated, computers can never replace human totally. Re-training of officials and staff is necessary to maintain their tasks and responsibilities in tune with the changing dynamics of e-government.
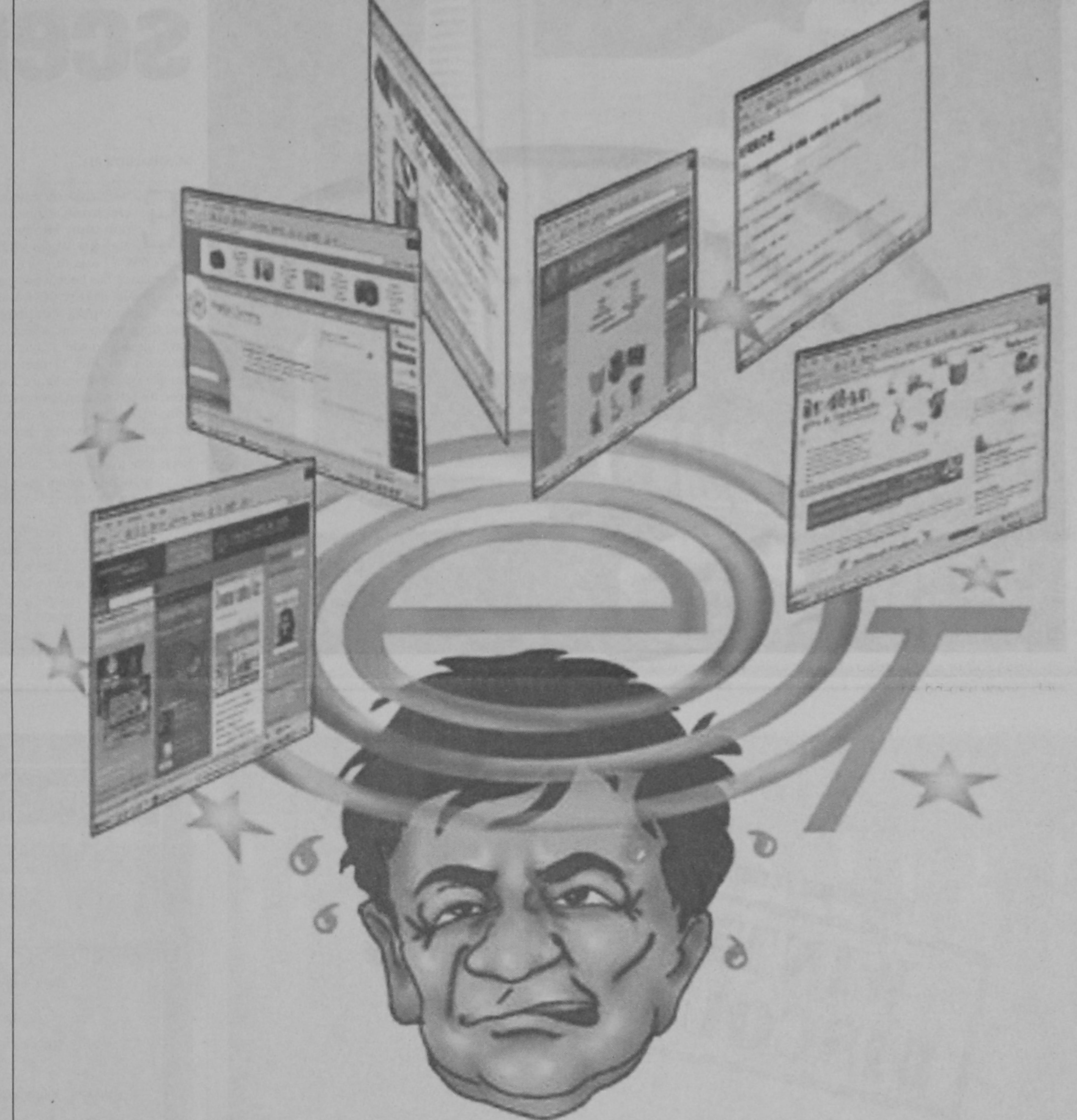
The young officials are positive towards ICT and are open to changes and re-learning. But computer accesses are largely limited to high-level government officials. However, the current of attitude towards ICT will change as more and more useful applications are developed and the junior officials move up the hierarchy.

Readiness for E-governance

Important considerations to be taken into account to assess readiness for e-governance are: ICT infrastructure, managerial readiness, legal situation, human resource, financial state, political situation etc. At present Bangladesh is ready for the initial phase of e-governance. Low levels of telephone density, pc penetration and Internet access are the major bottle-necks for e-governance in Bangladesh. But with the expansion of infrastructural facilities, online government services can be made available at remote parts of the country.

A nation-wide communication backbone essential for e-governance is yet to be developed. A large number of low-cost Internet access centers at public places throughout the country are necessary for e-governance to be useful to the general public.

Computer systems are vulnerable to attacks from hackers, crackers, viruses from different sources and the vulnerability increases with increasing automation for e-governance. However, protection is necessary with anti-virus software, digital signature, firewall, encryption, and authentication tools.

For advanced phases of e-governance information about citizens and businesses are often held in offices on different computer systems. This may result in situations where the privacy of citizens may be in danger. It is the responsibility of the government to restrict the utilisation of private information, and secure such information from access by unauthorisd users by appropriate laws.

Local software companies are capable of delivering large scale e-government applications and providing long-term maintenance and support. Government needs to produce and update web contents routinely and content managers are required for the information on the websites. With the expansion of e-governance, the need for professional ICT department is necessary during implementation and for maintenance of software, hardware and infrastructure later.

For full implementation of e-governance, electronic documents need to be made acceptable officially and legally; and for purposes of digital certification and authentication, Key Distribution Centre (KDC), Certificate Authority (CA) and Public Key Infrastructure (PKI) need to be instituted.

The ICT systems are generally developed within the framework of external projects. For sustainability and maintenance of such systems, trained ICT or information officers are necessary to manage ICT-related activities. Political will is an important criterion for e-government readiness. Leadership, initiative and directives from government are necessary for implementation of e-governance.

E-governance and Bangladesh

Present status of e-governance in Bangladesh can be divided into three levels; they are e-governance projects already implemented, e-governance projects under the SICT (Support to ICT) programme, and e-governance projects in the pipeline.

Ministry of Finance has customised software for budget planning, sensitivity analysis, impact analysis and financial projections. Many activities of NBR have been computerised. Both Dhaka and Chittagong stock exchanges are computerised and networked, allowing citizens to trade with ease. (This has contributed greatly to the reduction of corruption, saving time, and improving market responses.)

The Ministry of Science and ICT develops websites for different ministries. Ministry of Communication provides online searchable database of contractors and tenders. They have also created a project monitoring system for tracking progress of projects.

The Bangladesh Planning Commission use software for development and revenue budgets. The system used at the Commission has the features like file sharing through LAN, video conferencing, electronic notice board, digital library containing policy documents, minutes of meetings, and other useful documents.

The SICT Program is a government-funded project with a view to giving direction to the development of e-governance in the country. The primary objectives of this program are: building ICT infrastructure throughout the country, providing intra-governmental communication through video-conferencing, e-mail, digital library, electronic data exchange, reducing digital divide between rural and urban areas, empowering citizens through online services and thus making the government more accountable to the citizens.

The SICT Program has several important tracks to realize e-governance in the country. They are pilot projects for implementing online utility services in different ministries. Some of the notable e-government projects in the pipeline are National Trade Portal of Ministry of Commerce, online tendering and electronic passports.

Conclusion

E-governance can be used as a tool for solving age-old problems of poverty, official corruption, poor governance, and sluggish economic growth. While the developed countries have been able to benefit greatly from the widespread use of e-governance using ICT, many least developed countries have only begun to implement e-governance. This is also true in the case of e-governance in Bangladesh. Bangladesh has started to move towards e-governance in a comprehensive way. This transition towards e-governance should be accelerated as it is a part of a global movement.

In order to fit in the framework of global utilisation of e-governance, we need to develop country-wide high-speed communication network, expand pc penetration and Internet accessibility, and frame and enact necessary laws. ICT administrative cadre service should be created for planning, commissioning, updating and maintenance of e-governance and other ICT programs in the public sectors.

Dr. M. Lutfar Rahman is a professor in the Department of Computer Science and Engineering, University of Dhaka.