Star TECH

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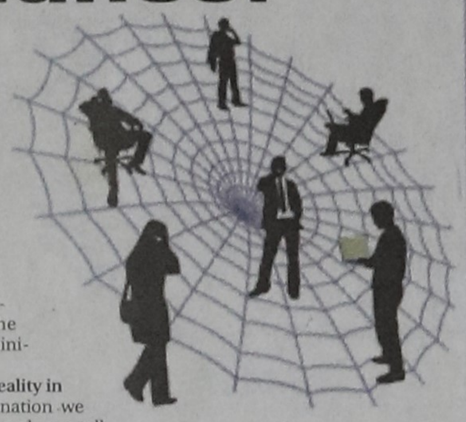
e-Government

e-Government (also known as e-gov, digital government, online government) refers to the use of internet technology as a platform for exchanging information, providing services and transacting with citizens, businesses, and other arms of government. e-Government may be applied by the legislature, judiciary, or administration, in order to improve internal efficiency, the delivery of public services, or processes of democratic governance. The primary delivery models are Government-to-Citizen or Government-to-Customer (G2C), Government-to-Business (G2B) and Government-to-Government (G2G) & Government-to-Employees (G2E).

TECHVIEWS

Discourse on e-governance: Bottomline



MD ANWARUL KABIR

DURING my stint at the British Home Office as a casual interpreter during 1995-96, I had close contact with some personnel working there who allowed me to see a part of their information system closely.

Being a software engineer, I was really amazed at the design strategy of their distributed database system. In designing, they could successfully align the system with the mission and vision of the Home Office.

Even 10 years ago, they put emphasis on the concept of e-governance in designing their system. They realised that the implemented systems would not be only for the use of the Home Office.

They had the vision that their system would be used by many other government organisations and citizens. I believe that cutting-edge technologies have made their system more foolproof by this time.

The term e-governance was coined with the advent of the internet in early '90s. Developed countries envisioned that new developments in ICT, especially the TCP/IP protocol, would significantly contribute to achieving the objectives of good governance. So, the term e-governance can be defined as efficient and effective use of modern ICT technology with a view to establishing good governance. From the management and technological perceptions, e-governance can also be defined as electronic state management system based on information and communication technologies (ICT), including the internet technology.

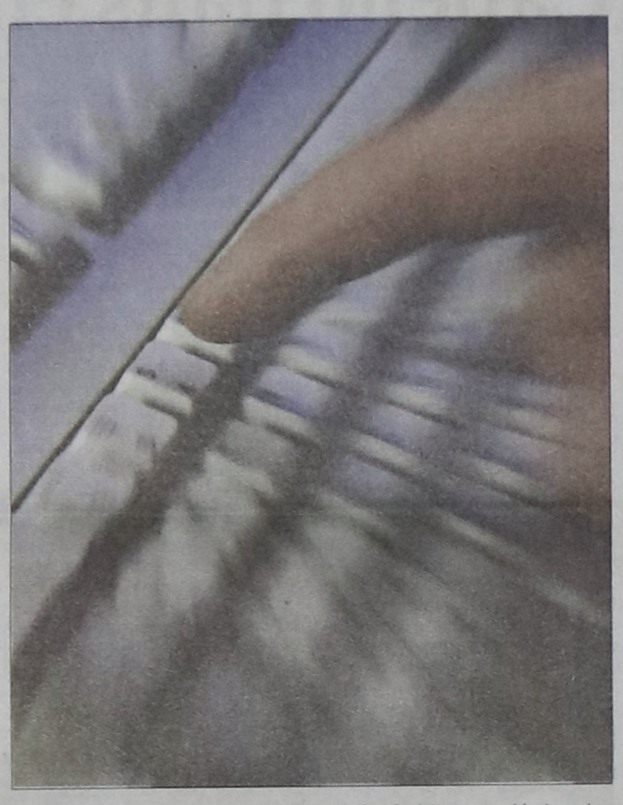
The ultimate objective of e-Governance is to establish good governance. The attributes of the good governance can be identified as follows: a) Honesty; b) Efficiency and Effectiveness (in terms of time space and money); c) Justice; d) Reliability; e) Participatory and Democracy; f) Accountability; g) Accessibility and Transparency; h) Equity; and i) Vision in decision making. All of these attributes can be achieved through proper implementation of e-governance using the state of the art technologies.

It has been proved that the corruption level in the public sector has dramatically fallen in the countries where e-Governance has been initiated. A survey in India has revealed that, in the states where e-governance has been established even partially, the corruption rate has decreased dramatically. The survey has found that in Kolkata and Mumbai, due to implementation of e-Governance in some public sectors, the corruption rate has declined to 19% and 18% compared to 51% and 38% respectively in 2000.

Even in Bangladesh, we may observe that due to computerisation of Railway Reservation System, the number of black-marketeers has decreased significantly. Elimination of the middlemen in citizen-government interaction, in fact, is the major factor eradicating corruption levels. If the people interact with the government organs through the web-page then colonial red tape practices will be totally removed. This in turn will reduce the pervasive bribery in government offices.

The computerisation of a system speeds up the performance in terms of time, reliability, efficiency and effectiveness. For instance, had a proper e-Governance system been implemented then a person could have easily applied for a new passport using his digital signature and citizenship identifier, and got the passport within 24 hours without paying any urgent/very urgent fee or facing any other hassle.

In an e-Governance environment, as all the departments of the government are virtually integrated, when a person applies for a passport through the website of the passport and immigration department, the specific data stated by the applicant will be sent to the relevant departments instantly for cross checking and validation.



As for example, for getting police clearance, data provided by the applicant will be cross checked with the police department's data, and a report will be generated automatically and sent to the server of the Passport and Immigration department office. Subsequently, the server of the Passport and Immigration department, after receiving the person's application and report as required from various departments system will decide automatically whether he is eligible to receive a passport or not. Even the printing process of the passport can be automated. So, because of the minimum involvement of the middleman in this case, the corruption and hassles in receiving passport will be approximately at zero level.

e-Governance confirms the active participation of the people in the process of establishing democratic norms in the country. The unfortunate incident that occurred in Phulbari, centring the coal-mine contract with the Asia Energy, could have been avoided if there had been e-Governance. Prior to contract with Asia Energy, the government could take opinions from the local people through website on this issue. On the same issue, a website discussion group could have been formed, which would bring transparency in decision making. With the people's active participation, some people decision, considering the country's resource constraints, local environment, and other socio-political issues, would come out.

e-Governance leads to e-Democracy too. For instance, in an e-Governance environment, any political party can select a possible candidate for the election if it has its own website by seeking opinions through the website. This selection will reflect the opinion of the common people and will thus reduce the impact of black money in the selection of the candidate.

Accessibility to information for all is the prime concern of e-governance. The citizen must have access to e-Governance. In reality, availability and non-availability of information creates the digital gap among different segments of the people in a society, which is one of the major causes of non-equity and social injustice. If everybody gets the same extent of accessibility to e-Governance then the class distance among the different groups in the society will be minimised.

e-Governance reality in Bangladesh: As a nation we are like an empty vessel -- we talk too much but do little in practice. When the buzz-word 'e-Commerce' started to gain popularity, many of our ICT giants paid much attention to it by organising seminars, workshops etc. Accordingly, they persuaded the policy makers of the government and, in 2001, they formed an ICT Task force headed by the incumbent Prime Minister Begum Khaleda Zia for introducing e-Governance in Bangladesh. Assessing their propaganda, it was assumed that the government would implement e-Governance overnight.

However, over the five years, insignificant progress was made. Other than the Planning Commission and ministry of finance, no other ministry could implement any significant software systems even for their internal use. Some ministries (e.g. ministry of Science and Technology) have created some static websites with a view to disseminating information to the public. As these websites are not interactive, there is no scope for active participation of the concerned people. Moreover, as these websites have not been updated regularly, they mislead public with backdated information.

In e-Governance environment all governmental organisations should be networked and interconnected. This connectivity facilitates exchange of information among different organs of the government without any manual intervention. Ideally, for this, we need to build up IOS (Inter Organisational Systems) or EDI (Electronic Data Interchange) software. Unfortunately, all the software systems developed in our government's various organisations are discrete in nature, and so they do not support inter-departmental or inter-organisational data sharing technique.

Computerisation and e-Governance are not synonymous. In fact, computerisation processes in some ministries or government sectors have been initiated. For instance, the recent automation of Chittagong sea-port is a great advancement. But truly speaking it is not e-Governance. We have to go a long way to implement e-Governance in our country.

Road Map to e-Governance: It is true that available resources for e-Governance in Bangladesh are inadequate. The low fixed-telephone density is one of the major barriers to digital communications. However, rapid growth of mobile telephonic network can presumably overcome this barrier. Besides, we can also use the underused optic fibre network of the railway department for this purpose. For global connectivity for e-Governance, submarine cable connection will play a significant role if we use it appropriately.

For establishing e-Governance in Bangladesh, ICT infrastructure can be built step by step, even at village level, if we have a road map or master plan for e-Governance using our limited resources.

Decentralisation of distributed database is one of the essential features of e-Governance. Decentralised or localised database ensures autonomy as well as reduces traffic loads in network communication. Keeping this in mind, we need to design e-Governance for Bangladesh. Strategically, we have to prioritise the sectors of the government that need to be addressed first. For good governance local government is vital and crucial, which is *upazilla* administrative unit. So, e-Governance in Bangladesh should be initiated at *upazilla* level first. Perhaps, this bottom up approach strategy for e-governance is the most appropriate in country like ours, where the majority of the people lives under *upazilla* administrations.

Financial constraints are the major problem in this context. But if the government is really sincere in using resources in an economic way then the funding for e-Governance will not be a big issue. For instance, we can reduce the software procurement cost if we use open-source software or free software for developing various modules for e-Governance. Besides, funding can also be possible from World Bank, UNDP, DFID, EU or other sources for initiating such project. The government may even approach Microsoft in this context. If the government can persuade Bill Gates to help in implementing e-Governance in Bangladesh, presumably he will come forward.

Finally, it can be stated that we have resources in terms of manpower. Among the new generation, many are getting technologically efficient. We can use them in our e-Governance project. But preconditions for initiating such a huge project, the government needs to be honest, transparent, and with a clear vision for the future.

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TECHREPORT

No power waste in the all new Digital Signal Processors!

MAHDIN MAHBOOB

ACCORDING to a report by Samuel K Moore, news editor of the IEEE Spectrum Magazine, hearing aids, power converters, medical implants, and telecommunications could benefit from continuous-time digital signal processing.

Digital signal processorsthose practically ubiquitous (available everywhere) circuits that make cellphone conversations understandable and MP3 players possiblecome in a great many varieties, but until recently, there was one variety no one had even thought to make! Called continuous-time digital signal processing (CT DSP), it has the ability, unique among such circuits, to consume dynamic power in proportion to the intensity of the signal it processes.

When there's no signal, such as during the silent spots of a cellphone conversation, the processor is practically inactive. But when the signal appears, it kicks into gear. Its inventor, Yannis Tsividis, Professor of Electrical Engineering at Columbia University, says the device's miserly management of power could make it attractive for small systemssuch as biomedical implants and remote sensorsthat deal with "bursty" signals in need of real-time processing. Industrial firms are also interested in using the technology for telecommunications and power conversion.

"It's a different way of looking at a problem that people have looked at for a long time," says Rajit Manohar, an expert on clockless circuits and professor of electrical engineering at Cornell University. "There are a lot of benefits to the approach."

A signal can be either analog or digital, and the system that processes it can do so either continuously or in discrete time. But digital signal processing has always been practically synonymous with discrete time. "This has been bothering me for many years," says Tsividis.

In conventional discrete-time DSPs, the clock signal that triggers the sampling must have a frequency of at least twice the highest frequency of interest in a signal. But the clock has to go on nonstop at that frequency whether or not there's a signal and whether or not that signal has any high-frequency component to it at a given time, which is a waste of power.

The new CT DSP, by contrast, has no clock. Instead, when the signal changes by a set amount, the CT DSP produces a digital pulse. If it changes by that amount again, a second pulse occurs, and so on. A separate digital signal marks whether the input is increasing or decreasing. Those digital pulses are put through a programmable circuit that digitally filters the signal in continuous time and then converts it back to analog.

Aside from the potential power advantage of a CT DSP, it just might make things sound better. Conventional DSPs suffer from two types of spurious signals: one, called aliasing, happens because the input signal mixes with the clock frequency. With no clock, CT DSPs are free of aliasing. The other, quantization error, is produced by the inexactness of turning the analog input into a digitized signal. In a conventional DSP, quantization error is spread over all frequencies, but for a CT DSP, it occurs only at multiples of the frequencies in the signal, so it's easier to filter out and there's less of it to begin with. Also, such "harmonic error" is less objectionable to the ear!

Information Source: IEEE Spectrum Magazine

TECHNEWS

Google Earth rebuilds ancient Rome

AFP, *San Francisco*

GOOGLE on Wednesday resurrected ancient Rome online, opening a three-dimensional virtual version of the city for cyber-explorers interested in trips back through time.

People using free Google Earth software can seemingly fly past more than 6,500 buildings that stood in the city at the peak of the Roman Empire in 320 AD.

Online visitors can swoop in for close-ups of structures and peruse pop-up information "bubbles" written by historians.

Some buildings feature full interiors. Internet surfers can visit the Roman Forum; linger in the center of the Colosseum; pass through the Arch of Constantine and follow in the footsteps of gladiators in the Ludus Magnus.

Rome is the first ancient city recreated at Google Earth, an interactive online Atlas that provides tools and technology that enable people to explore the world.

To commemorate the launch, Google is inviting US educators to take part in a contest promising prizes for innovative lesson plans based on the virtual Ancient Rome feature.

PHOTOTECH

BLIND TEST

A group of Chinese blind people take a test on computer skills with the special keyboard that adopts the Braille system of reading and writing, in Xian, northern China's Shaanxi province on October 26. China has 82.96 million disabled people, of whom 16.91 million are blind, according to statistics from the disabled federation.

PHOTO: AFP

TECHNEWS

iPOD Nano & Touch at RM Systems

STARTECH DESK

THE most up to date version of Apple's iPod Nano is now available now at RM Systems situated at BCS Computer City, IDB Bhaban, says a press release.

There are few new features available in this Fourth Generation product of Apple such as Library and Shake to Shuffle.

One can enjoy all kinds of high graphical movie of these days and listen songs as well as before. User easily can create her/his own list of songs as per choice using this device.

Simultaneously, the user can place a song totally at first or at last of the list only using Shake to Shuffle mode. Additionally, there are few useful features friendly to environment in the iPod Nano such as the iPod Nano's glass is free from arsenic and there is no mercury. The price range of iPod Nano is BDT 17,000 to 20,000 thousand respectively for 8 and 16 gigabyte capacity.

iPod Touch- a member related to IPhone is also available. There is built-in speaker in iPod Touch to listen songs at any situation. The price of iPod Touch is priced at BDT 30,000 for a capacity of 16 gigabyte.

Local art, click away

SAMIUL ISLAM RIKTH

Jolrong.com brings the arts of Bangladesh at you at your fingertips. This new and innovative website allows people from all over the globe to purchase authentic paintings by various talented Bangladeshi artists.

If you have a craze for Bangladeshi artwork, through this site you can view hundreds of paintings of different genre ranging from classic to folk to contemporary. And if you like one, then just at the click of your mouse you can own it, in originals and prints, along with a personalised frame of your own choice.

The website also enables you to virtually meet the artist whose painting you intend to buy through the "Artist Profile" allowing you to get to know them a tad better

Once selection is made and purchase is confirmed, payment is to be done through Paypal- the most renowned and safe means of online payment while secured delivery is assured by DHL or EMS, making shopping easy and simple for the buyer.

Jolrong.com claims itself to be an artists' window by giving them a proper recognition and after visiting the site myself I have to agree on that. So what is the wait for? Turn to your computer and type jolrong.com and enjoy the world of Bangladeshi Artwork.