

# Securing the Future of IT Services in Bangladesh

by Yousuf M. Islam

*Data entry operators therefore type the relevant data into the computer; programmers write the software formulae which tell the computer how to collate; systems analysts design how the entire computer system will fit into your organisation and its needs; and information technology is therefore the technology or engineering which brings electronically collated data to our fingertips.*

NOWADAYS we hear a lot about information technology or IT for short. It would be useful to know what IT means to us specifically. An actual example would help us relate information technology to day-to-day situations.

A garments manufacturer recently purchased a micro-computer with an accounting software for his factory. The accounting software allows entering day-to-day voucher amounts and storing these in the computer's hard disc. At the end of the month, the software tells the computer how to add all the stored voucher amounts, under each accounting head. The garments manufacturer had instructed his staff to enter all expenses, even minor petty cash ones.

At the end of the first month, he was surprised to see that the total of "Petrol Travel Expenses" came to above Tk 70,000. Taka 5 here, Taka 50 there added up to quite a lot. In the original manual system, as it took too much time to collate the individual petty cash expenses, this seemingly minor cost was ignored. Once he saw the electronically collated total cost, the manufacturer immediately bought two bicycles for Tk 4,000, one each for his sons. Next month, he therefore saved Tk 62,000. In one month, he not only recovered the cost of computer and software, he was able to take a management decision and save the company money. How much would he save in the next 11 months?

Data is usually available on paper and in ledger books. However, since it takes a lot of time to collate, we usually have to take decisions without the benefit of collated data, i.e. information. Since a computer cannot read from paper, all data has to be initially entered and stored in a computer storage medium. Much like a calculator, the computer can then read the stored data and collate it as required. Software formulae tell the computer how to collate the data. Since the computer is electronic, the data is collated at electronic speed.

Data entry operators therefore type the relevant data into

formation technology is very high in the western world. In addition, modern living amenities have made the western man less keen to do tedious work. Both these factors have promoted the use of eastern labour for implementing information technology systems. With India leading the field in export earnings from such IT jobs, Malaysia, the Philippines, Thailand, Pakistan, Indonesia, China and Japan are making concerted efforts to cash in from IT services. Bangladesh, being ethnically and culturally close to India, as yet, has not been able to achieve noteworthy export earnings from this sector. At the same time, however, it is interesting to note that majority of the young Bangladeshis abroad hold IT jobs and are doing exceptionally well. In addition, local boys are doing exceptionally well in both international and local computing competitions. Bangladeshis, clearly, have a knack for such work. Why are we then, as a nation, not able to export?

**Problems**  
It has been repeatedly demonstrated that Bangladeshis have a knack for software problem solving. Local Bangladeshi boys have come out top in a recent software competition over the Internet. These boys, however, lack communication skills. They are unable to adequately express/present what they have done, in English.

Software export ventures require that all work be properly documented, i.e. written down in technical English, so that people overseas can understand and use the manufactured software. Software export, therefore, cannot be sustained without proper documentation skills. Today's students are unable to satisfactorily document nor are they able to prepare convincing presentations. Why is this so?

In addition, due to a lack of proper teaching resources, programmers are not acquainted with standard structured programming techniques. Unstructured programs cannot be easily maintained or upgraded. The use of structured techniques is essential for export work, as

proximately Tk 5 crores. Although the price of local software houses was much lower, CSE was not willing to take the risk. With the new software systems in place, trading is transparent and trading volume exceeds that of Dhaka Stock Exchange. People are therefore willing to pay for proper jobs which would benefit them. Needless to say, Bangladesh, therefore, currently, does not have a good reputation in the IT arena.

**How can we go about building a good reputation?**  
As a first attempt to look for a solution, we can start comparing our educational system to that of our successful neighbour, India. In India, the education system is such that it produces persons who are not only good programmers, but can also read and write English. Periodically, many such graduates come out and the competition among such graduates is very high. Theoretically, a foreign software company can come to India, get 500 programmers and set up a software house in a very short time. Compared to this, where is our education system?

Our present education system has, in fact, handicapped the natural knack and talent of Bangladeshi students.

What steps can be taken now to address this situation? Any step taken must be very positive and effective. We must somehow force our education institutes to produce proper calibre students. We need a means to gauge and establish a standard for IT jobs and services.

**Needs/Solutions**

The local market currently has various degrees of non-standardised skills. We need a means to assess the level of local skill and take steps to standardise this skill. Standardisation will at the same time allow foreign investors and foreign clients to gauge the local skill level. It may give them the required stimulus to give work to local persons or to set-up joint venture projects.

Standardisation would also help development of the local software market. If, for instance, a local company hires a "Certified Systems Analyst" or a "Certified Programmer", it

will feel confident that proper standard software work would be done. This would in turn help to build a good local track record.

This is where a neutral professional body such as the Institution of Engineers (IEE) could come to the rescue. Much like their existing periodic engineering examinations, they could hold periodic certifications for:  
- Certified Programmer  
- Certified Systems Analyst  
- Technical English Certificate  
- Certified Documenter  
- Certified Network Engineer  
- Certified Multimedia Specialist  
- Certified Data Entry Operator

They could also help to ensure that software products made locally are properly structured and documented by providing a "Properly Structured and Documented Certificate". Over a period of time, other certification standards may be developed as and when needed.

The professional body would publish syllabi and books for these examinations. Local software training centers, insti-

tutes and universities would be invited to prepare students for the certification examinations. Such examinations may also be conducted over the Internet. Students studying at home could sit through the Internet.

However, since the Institution of Engineers does not have the requisite in-house expertise, a foreign body with experience for such certification, such as the British National Computing Center (NCC), could set up the syllabi, books and the examination papers for IEB.

In addition, to help information technology businesses to grow successfully, grants and loans may be given only to individuals/firms with appropriate certification. Licenses for setup of faster Internet access (for fast and cost effective data transfer), i.e. 256kb or more, should be easily granted by the Government. Letter of Credit (L/C) terms for software, data entry and other IT jobs need to be streamlined to encourage export. This would all help to install the infrastructure necessary for the export of software and data entry work.

**Benefits**

Benefits of such certification would be enormous. Local training schools would be encouraged to gear themselves up for preparing students for such examinations. They would first have to pass the certificate examinations themselves and become certified trainers.

This would be a positive help to the local software market. Programmers working in the local market would then gain the much needed experience with standard software products, which would in turn give them confidence to tackle the export market.

Documentation would expand local software houses to help. All too often, good programmers leave to form their own companies. In one sense, this is good, however, it leaves the parent company stranded. Synchronous documentation procedures would subsequently enable new recruits to take charge of projects abandoned by the previous programmer.

Foreign vendors and clients could gauge capabilities by evaluating local software products and local experience.

The author is working as Managing Director of Soft-Eid Limited

NOISE, a pollutant which can irritate and annoy, is one of the environmental pollutants identified as a health hazard by the World Health Organisation (Noise: Environmental Health Criteria 12, WHO, 1980). Although difficult to quantify because people's tolerance to noise levels and different types of noise varies considerably. Distinct variations in noise intensity and noise levels can occur from place to place (even within the same general area), and from one moment to the next. Similarly there may be large variations during each day, week, or year.

Noise pollution in and around Dhaka city's educational institutions is posing a serious health hazard according to a Department of Environment (DoE) survey (The Daily Star, 4 June, '97). The level of noise in 14 educational institutions surveyed by the Department, was measured at between 67.19 and 75.35 decibel on average, almost double the permissible level. During the survey period (between 9 March and 7 April, '97) the highest noise level was recorded at the Noon Girls School, one of Dhaka's most prestigious secondary and higher secondary school situated in the Bally Road area, the Oscilloscope (measuring noise) read 84 decibel on the outside and 72 decibel on the inside. The report identified vehicular traffic, industries and human activities as the main causes behind noise pollution in the city. It said the pollution could cause temporary and permanent mental and physical problems to the human body, leading to high blood pressure, headaches, indigestion, peptic ulcer and insomnia. If exposed to too much of noise over a long period, a person may suffer hearing loss and his work ability may decrease. The DoE report also reiterated that pregnant women and children were more vulnerable to noise pollution. The DoE chose the schools to survey the level of noise pollution as these locations have been classified as 'sensitive' where it is necessary to assure quietness. The report further blamed vehicular noise, particularly horns, un-planned construction of markets and commercial areas and

motor workshops, for the pollution in these sensitive areas.

The suggestions in the report refers to general awareness creation among the members of the public and voluntary organisations who should be encouraged to take up programmes to fight this form of pollution. Moreover, it includes Municipalities and other government departments to take steps to stop indiscriminate use of loudspeakers, high power speakers and horns, import and manufacture of hydraulic horns must be banned, the report suggested and added that all noisy industrial units must be removed from the residential areas. It was also noted in the report that all construction work including road and house building work must be carried out during a specified time of the day.

The Environment Policy of the Government of Bangladesh has as one of its objectives the identification and control of all (Environment Policy, 2.3) leading to, amongst others, the incorporation of environmental thoughts in the Health Policy of the country and also ensuring healthy environment in urban and rural areas. In furtherance of this policy the Environment Conservation Act defines environmental pollutant as "any solid, liquid or gaseous substance present in such concentration as may be or tend to be, injurious to environment and also includes heat, noise and ray" (Section 2 (e), Environment Conservation Act). Moreover, as per the Environment Conservation Rules (SRO No. 197-Law/97 made in exercise of Section 20 of the Environment Conservation Act, 1995) lays down in the 4th schedule the quality standards for noise levels as 50 dBA (day time) and 40 dBA (night time) for residential areas and 60 dBA (day) and 50 dBA (night) for mixed areas where the area is mainly used for residential and commercial and industrial areas, which seems to cover the parts of Dhaka city where most of the educational institutions are located.

The available information suggests that children are under serious threat from noise pollution in Dhaka City. The kind of children who are invisible (from the purview of the study) in the above mentioned study done by the DoE, are those who

are neither in any educational institution nor in any household, those children who are actually on the street. It is necessary to add the aggravation of noise pollution (and for that matter any other form of pollution) on the lives of street children who are omnipresent in large numbers in the streets of Dhaka. But what is even more lacking is the Government's recognition of the hazards posed by environmental pollutants on the lives of children.

From the effects of these pollutants, although the Government's policy documents related to the protection of children reflect on the protection of the child from different elements and factors, in reality these proclamations are nothing more than prophetic gestures which are not backed by any realistic actions. It is indeed appalling to note that Government documents relating to the children do not categorically identify the aggravated form of risk to children from environmental pollutants when they deal with particular hazards to human health. In this regard the role of national and international child rights organisations is also questionable because they may be in the process of passing the buck to the Government on different issues but on this issue of effects from environmental pollution their role is not much different from that of the Government, which is evidenced by the total lack of initiatives on their part to address the issue of imperilled children from environmental pollutants. It seems that the role of the Government and child rights organisations activist sector is limited within those areas like child labour, which has actually emerged out of external pressure against the export-oriented industrial sector. Identifying hazardous forms of child work (the difference is that these remotely address the work environment with livelihoods) or around issues like child prostitution (no doubt a serious problem) which makes media headlines exploiting pathetic images of vulnerable children. Moreover there are some agencies whose restricted view it seems is to pass off environmental considerations in the name of providing clean water (not so clean after

and safe sanitation practices).

But if we consider the best interests of our children, issues like children at risk from environmental pollutants is no doubt of a higher priority than issues like sending children to represent the country in international forums. Although we are a state party to the United Nations Convention on the Rights of the Child (UNCRC) and also a signatory to the World Declaration on the Survival, Protection and Development of Children, what is surprising is that even such a declaration tend to have a very narrow interpretation on Children's Rights and the Environment when it proclaims something like 'seeking to improve the environment by combating diseases and malnutrition and promoting education (Article 26: Plan of Action for Implementing the World Declaration on the Survival, Protection and Development of Children in the 1990s). Environmental pollutants are definite causes of diseases which have been proved time and again through different studies in recent times. But the approach by different actors involved with the protection of children should be a consistent with a preventive approach which can ensure a harm free future for the concerned children from environmental pollutants. I would conclude for now by appealing to all of those who are proponents of children's rights to look into the aspect of environmental dimension and children's rights from a preventive approach rather than a consequential one. Failing this, we would be trying to address symptoms and not the cause of deprivation of the rights of the child. The consequences of our failure to address this issue would be catastrophic as our future generations (our future leaders, if you like) for a certainty will not be in a position to respond to any issue, as they may be deaf (or terminally ill) as a consequence of our irresponsible acts and omissions.

The writer is Programme Manager (Rights) of the Save the Children Fund (UK) in Bangladesh. The views expressed here are those of the author and does not necessarily reflect the views of the organisation he is associated with.

# Freedom without Freedom

by Dr MB Abul Kasem

*Buyers don't determine their needs, the sellers do. Sellers inform the buyers about what is out there for them to buy. Buyers learn it from the sellers what and when to buy and keep on buying goods and services in search of happiness. That's how the consumers in affluent societies try to buy happiness in life.*

IN affluent societies sex, leisure, entertainment, vacation, summer house, beach-front cottage, resorts, river cruise, golf, sailing, loans, are examples of expensive goods and services provided by the producers and service providers to keep people artificially satisfied and show the higher buying power of the mass.

Producers spend for consumers because consumers in turn will spend for them in affluence. Sellers produce to decide what the consumers will buy for themselves, then produce it, prepare the consumers and make them buy it. Producers do it by shelling and bombarding the consumers through the media; create a buying psyche by promising happiness, comfort, convenience, prestige, social class, etc.

They don't even realise that the happiness they want to purchase from the sellers is not there. The sellers won't sell it anyway even if they had it. Because if the need is satisfied the consumers will stop buying and profit-making will halt. So the producers keep producing not to satisfy the needs but to create a continuous dissatisfaction to maintain the state of mind for buying more to keep running their selling machine for running profit.

Buying becomes a habit and collectively this habit becomes a culture, a buying culture with a constant urge to be satisfied. Satisfaction will stop the cycle of buying and selling. So the producers spend in millions on the media to manipulate the level of consumer's dissatisfaction to keep the cycle running. The affluent societies are free to buy but not free to enjoy. There is no restriction in buying anything. There are unwritten and untold established conditions for not enjoying what is bought. It is like a stressing a person caused by some urge that never gets the chance to be satisfied. So keeps buying to find happiness and comfort but never finds it anyway. That is the real peril. Consumer is untied to buy and tied not to be happy. He is free and not free.

Consumerism again constantly steered by another good-looking, good smelling, well-dressed industry called advertising industry in alliance with the media. Alliance says, 'We got what you need, just buy it.' Consumers do. Still unsatisfied. Because the need and the product or service both are artificial. So they dispose it off in many ways or forget about it. What happens then? Crave for the next product or service to buy for the same old reason that is still urging inside. They go through the same old process and remain unsatisfied for ever to keep buying for ever. That's how an affluent society becomes a disposable society with an uncertain consumer ethics.

Constant unhappiness put them in disappear even in affluence. They are being battered and bombarded continuously by the system. At one point they

become bankrupt for life or for few generations. Sometimes that doesn't take even too many transactions.

The consumer makes loans for house, car, vacation, tuition payment, rent, household stuff even, groceries, and gas for the car. Shortly he starts discovering his own status in the society. He finds that he was honeymooning in a fantasy world where 'the invisible' dragged him into and realises what he got into. He finds himself already plunged inside a grime called 'loan, interest, and interest of the interest' and trying to keep his nose up to survive. Why did it happen? Because he was born in a loaned house, rode in a loaned car, watched a loaned TV, fed the grocery bought with plastic card. He grew up in loans and buried by loans made by his parents even before he was born.

'The invisible' is doing this loan business (interest business) taking life and society as ransom. One doesn't see its full appearance at one time but in different times in different situations in different forms. Because that's how it was created. So one won't be able to recognise its real appearance ever.

Example of one form in a situation: It appears when one registers at the university and applies for study loan. You will find a nice little office with a sign on, says, 'Financial Assistance'.

Seems friendly, right? Wrong. 'The invisible' is in there. If he steps inside the office he will see all the big banks are sitting there quietly hiding their faces with money in their hands saying, 'take it, it's for

you'. A nice soft hand is holding out money for him. He takes the money for educational expenses. He saw the soft hand but didn't see the deadly nails inside that will tear him apart in short few years. Then he will realise that it was a part of the face of 'The invisible'.

Getting married? Need money for a diamond ring? Need a car loan, home loan, first and second mortgage loan, vacation loan, personal loan, business loan, home appliance loan? Need visa, master card (doesn't say credit card), even gas station card, dinner card (they are also credit cards)? No problem. Money is available.

'The invisible' goes everywhere with him even to store to buy clothes and groceries, gas station to fill the tanks, restaurant to dine out and on and on. It goes with him anywhere he goes. He cannot go any place without it. If he forgets, it says, 'Take me too, you need me. You will stay dependent on me rest of your life.'

End of each month, all his life he will be getting bills. It doesn't say loan plus interest plus interest of the interest. Only says, 'Pay'. He is paying out, and in most cases he will never see the sender of the bills and bills will never be finished. His children will continue paying the bills to the 'invisible', the master planner.

He had buying power on credit. He didn't have real buying power but borrowing power. 'The invisible' had it. In great consumer societies when we see such buying power in consumer index it is not necessarily the buying power of the society but may be of the 'invisible'.

By Hanna-Barbera

# Openness on Y2K Necessary to Prevent Overreaction

*Fixing the existing mainframe computer systems that are not designed to store and process dates beyond the year 1999 is essential by the last day of that year. Even if a small percentage of the systems fail, the resulting disruptions are likely to have international implications.*

THE year 2000 computer problem would be serious if ignored, but ongoing government and industry efforts to correct the problem have been successful, says John Koskinen, chair of the White House Year 2000 Committee.

The US government expects to have all its systems updated well in advance of the year 2000. Koskinen said in a US Information Agency satellite broadcast to Brasilia and Sao Paulo Sept 25.

Fixing the existing mainframe computer systems that are not designed to store and process dates beyond the year 1999 is essential by the last day of that year. Even if a small percentage of the systems fail, the resulting disruptions are likely to have international implications.

There is unfortunately no easy way to deal with this," Koskinen said. "It is a major challenge even for those who started early and are still working on it."

"It is never too late to start. It may be too late to finish on time, but whatever we can get done between now and the end of next year is obviously important. Organisations in the United States and elsewhere that start late must make very hard decisions about what are

the most critical systems... and focus resources on those," he said.

Further, "it is very important to test the systems that have been fixed." This is true because for every 100 lines of computer code that is corrected, five to eight errors are made. Testing takes at least half the time in correcting the problem and may involve half the expenses, said Koskinen.

In addition, backup plans need to be devised in case systems are not fixed in time. Backup plans are of two types: for when a corrected system does not work and for when other systems to which they are linked do not work. In critical industries such as power, transportation, and financial services there must be such plans, Koskinen declared.

It must be understood at the top of organizations that Y2K is a critical problem, he said.

But he indicated that efforts are being made to prevent the more serious repercussions resulting from the few systems that will fail January 1, 2000. Washington has set up working groups of industry leaders and officials of federal agencies that deal with those industries to share information and determine the best way to address Y2K problems. The electric and

oil and gas industries have already done their work on this and recently issued reports on the status of their efforts to prepare for the year 2000.

Koskinen dismissed speculation that Y2K disruptions will plunge the United States into economic recession. He predicted "relatively minor" economic consequences, even though "no one has very good information internationally about the real impact on January 1, 2000. Computer failures in shipping and international financial services and telecommunications will have an impact," he predicted.

"Our most negative result likely will be overreaction by the public. And they don't have to panic to create a problem." If, for example, 100 million Americans decide to withdraw a modest portion of their savings from the banking system to purchase a little more automobile fuel, canned food, and medicines for the expected commercial crisis fomented by computer systems failures, "we could have serious disruption regardless" of whether the computer problem itself becomes serious.

"The answer is not to make general statements to the public that they should not be concerned, because most of the

public will understand that there is a problem because we say they shouldn't be concerned. So transparency is critical." Government and industry have a responsibility to give candid and accurate information to the public, he said.

People need to be fully informed but also to have a sense of confidence that all is being done to prepare for the problem, which will provide a sense of proportion. "It may be appropriate to buy a few days supply of water, but not six months supply," he said.

Media coverage of the Y2K problem will grow more alarmist as December 31, 1999 draws ever closer, heightening the need for government and industry to provide full and accurate information about the realities of the situation. "The public generally responds appropriately if they get the right information," he said.

Koskinen expressed more concern about other countries risking Y2K damage. "Easily half the countries of the world have done little to deal with the problem because they do not think it applies to them. And we are very concerned that they will discover the impact of this problem only after we move into the year 2000, and that has great risks for all of us."

