## The Information War-IV

he introduction of fiber optic and satellite based telecommunication technology led to an increase in facilities, broadening the telecommunication net within states and between them. These developments took place in industrialized countries as well as in some of the poorest countries of the Third World. The return on such technology was expected to emerge from its use to increase efficiency, in the economy, for the production of wealth, through application in the financial, services or entertainment sectors and also in security systems. It was understood that in less developed economies the optimal commercial use of the systems that were being installed was not going to be possible for some time due to the nature of business activity there. For instance in Pakistan, even today, only a few sectors of the economy use telephones to transact business. Still less use Internet for business purposes. Systems that have been installed stand idle much of the time.

The limits on the personal, as well as business driven need for information technology are governed by several factors-such as compatibility with the systems of service providers and partners. The recent slowdown in the world economy has high-

lighted the fact that updating computer and telecommunication systems is a low priority when individuals as well as businesses need to cut costs. Any investment in upgrading systems must bring in a return-this is where official efforts to promote information technology in less developed countries fail. Once the hardware is set up, the software is installed and the technical skill has been imparted to qualified individuals they need a place to employ that skill in order to produce wealth. This is only possible in a rapidly expanding economy that has planned for, and needs, information technology as a component, not an adjunct. Advertising budgets suffer when sales go down and this affects many categories of media activity. Nevertheless, increase in area coverage and inexpensive receivers have given media larger audiences to entertain,

inform and influence.

Recent surveys show that recession and a cut in travel and tourism has led to a boom in home entertainment devices and related services in the industrialized count is. Similar low cost devices and services contin : to be priority items for low income families in some of the poorest countries of the world. Entertainment devices do not stand idle. This is a revolutionizing factor in socio-cultural development that has become more difficult to manage (officially) after the introduction of transnational and cable networks. In crisis situations highly politicized audiences react sharply to situations such as that prevailing in Konduz after Northern Alliance forces entered the city. Journalists were not allowed to send visuals of the bloodbath that ensued but the very fact that there was an information blackout was revealing and inflammatory. Highly stylized coverage of the invasion of southern Afghanistan by US troops appeared to be an effort to minimize hostility in Muslim populations by avoiding visuals of com-bat between Muslim and Christian troops.

Some applications of information technology serve to politicize and educate populations while other applications of information technology can serve to enhance productivity and effectiveness. However, Shahwar Junaid

in order to use technology it is necessary to have basic education, technical skill, knowledge of the possibilities of technology and an appropriate environment in which to use this knowledge. Striking new social and political alliances are emerging between those who share a common scientific and technical culture in at least two areas of activity: business and security. The more sophisticated applications of computer mediated information technology have led to the creation to a new class of information rich individuals within societies and within nations in the international community. Where information is not accompanied by opportunity and economic wherewithal, new tensions are created in society: there are those who are wealthy enough to afford such technologies and derive benefit from their use and those who are not in a position to do so.

Early 1990's rhetoric about the globalization of business opportunity helped create a culture in which information technology played a central role. This culture developed relatively fast in the United States where employment patterns were changing in response to the rising social cost of conventional

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business. It was, however, accessible to a relatively small group of individuals and entities outside the United States-generally people of high net worth. This restricted the growth of e-business and public interest in it. In retrospect the response of financial groups and e-business service providers in Europe to inquiries from other parts of the world appears both smug and self-defeating: in so many words they were saying "yes, we will let you see how well we are doing but, of course, you may not join us and of course, you my not partake of our success..." This was the point at which some layer within the multitude of United Nations agencies for development and industrial growth should have intervened to discuss and remove legal and other concerns regarding international e-business and e-commerce, but they did not. It is American business with its global outreach, and forward looking strategies for expanding business, that has been most helpful in combating cyber crime and harassment in other parts of the world.

Meanwhile cyber crime and harassment through hacking and the release of viruses etc., both custom-made and global versions, have undermined the effectiveness of information technology and related activities besides posing a serious threat to users all over the world. Mischievous software programs and

ents, on a commercial scale, are often distributed through mail order services in the United States. They can be lethal in certain hands-for instance an ultra high frequency noise delivered during an ordinary telephone call made to a journalist in Pakistan caused a stroke, leading to temporary blindness, dizziness and loss of hearing. A respectable US financial journal (SmartMoney, April 2001) advertises a similar device in a feature on its editorial pages in the following words, ".. Sonic Nausea (\$59.95). Hide it in your enemy's office, flip the switch and this small device generates ultra high frequency sound waves said to cause headaches, dizziness or even vomiting. Ah, the wonders of technology." It is not difficult to imagine others refining this device further.

The need to combat cyber crime led to the development of many categories of expertise in the private and public sector. Allied developments provided both sectors with an unprecedented opportunity to gather information and intelligence for various purposes. This eventually led to public discussion of the social, political and security implications of the intrusive worldwide communications

web run jointly by the United States, Britain, Canada and Australia with other states chipping in from time to time. The social, political and security implications of providing training to, and conducting joint exercises in cyber intelligence, with allies in less developed countries like Afghanistan and Pakistan, were not considered: in both countries citizens do not have recourse to an effective legal system when confronted by harassment and state terrorism. The situation duplicates that of a number of South American countries during the 1970's and 1980's.

The development of security systems utilizing advanced information technology has added a new dimension to the formulation of defense strategies. In a column published in June 1996 it was

stated that, "Based on analyses of recent history the United States (and its allies) is evolving new systems on the assumption that in future the primary function of its establishment is likely to be intervention to protect and defend allies. Within this scenario it is believed that information technology can facilitate such intervention and minimize impediments to conventional military assistance to allies.

The idea is that the provision of strategic information can be an on-going process that is not easily detected, or as costly, as shipments of conventional arms. Superiority in this field is more easily achieved where the political will to provide it exists. Information critical to the integration, maintenance and indigenous upgrading of existing systems that allies possess can be of immense importance..." The Nuclear Missile Defense (NMD) system that is being developed by the United States in close cooperation with a few regional allies, such as Britain, Germany, Canada, Australia, Japan, Israel and Turkey will use existing information technology resources available to these states besides introducing new applications. States that are not in the loop may find it safer to shut their information corridors and look to internal resources in order to survive.

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