Information Technologies and Globalization: Ruination vs. Ripples

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Technology is defined as a device to compensate for human physical, psychological, and mental limitations. It is usually neutral, but can have functional and dysfunctional aspects based on its users' intentions. Historically, the technological haves have justified the existence and possession of new technologies, have publicized their own innocence and sense of responsibility in using them, and have asserted the innocuousness of their devices without necessarily sharing all of their secrets. Concerned and helpless, the technological have-nots have resisted them and, having suffered their deadly devastation, have tried to obtain them at great risk to themselves. However, the situation of information technology/-ies (IT) is different and more interesting. The haves have attempted to popularize their use globally for commercial and other reasons. Many have-nots are embracing them wholeheartedly, while some are more cautious.

One motivation behind the use of these technologies is globalization. The increasingly popularized term *globalization* is rather vague and complex, allowing a variety of interpretations and hidden intentions. The have-nots seem to see it as the West's redoubled efforts at Westernizing the world with all its pains, pleasures, and perversions; as achieving political hegemony as the sole superpower after the end of the Cold War; and as the "opening up of the globe" for commercial control on its own terms. Initially the world, especially the nations of South Asia, saw for themselves a rare opportunity in the globalization of trade and IT. But since the contagion has now spread, rather too fast, across the globe, the world can see more clearly both the prospects and the problems of these two major global trends. The purpose of this paper is to identify various issues involved in these trends, and to discuss, in greater depth, some of them, namely, global business, the promise of technology, and the globalization of media and culture.

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The Issues Involved

The global marketplace that the convergence of modern information and communication technologies is said to have engendered is a multi-trillion-dollar treasure trove.[1] It is open 365 days a year, 24 hours a day, and is "free from any national border controls." Therefore, it is considered "equally accessible" to small and big, poor and rich, as well as weak and strong nations. It is estimated that over the next couple of years, the volume of electronic trade (i.e., e-commerce) based on push-technology advertising, telemarketing, and telesale alone will reach approximately $300 billion. In the fields of education and training, unprecedented tele-learning opportunities are helping the spread of literacy, individual professional development, and the performance of organizations. Entire libraries of free material can be downloaded across the globe with great speed. People in remote rural areas one day may have easy access to timely and quality health care, prophylactic as well as curative.

One's personal or lap-top computer is a virtual office, resulting in new innovative patterns of job design. Millions of workers telecommute in the sense that they work for distant clients or employers from wherever they choose to be. According to Gilder, almost 100 percent of the gross domestic product (GDP) of the United States is influenced positively by IT. This impact, though, is so far skewed in favor of business-to-business transactions rather than business-to-customer ones, since only about 35 percent American homes are connected to the Internet.[2]

The proliferation of new IT, especially the Internet, and the resultant rapid mobilization of the world's population have changed conventional notions of ethnicity, nationhood, and community. This, in turn, generates an increasingly hybridized form of global culture. These changes, which intensify the traffic of capital, commodities, information, and people circulating the globe, have serious positive and negative implications for humanity at large, and particularly for people in the Third World. The tendency to overgeneralize our present happiness is especially visible in the growing American certainty that we have the right answers for the rest of the world. In international conclaves these days, we lecture the Japanese on how to fix fiscal and trade policies, the Germans and other Europeans on the evils of the welfare state, and the Russians on the right path to democratic capitalism.[3]

This brave new world of the globalized cyber marketplace is not worry-free for all, and the euphoria with which it has been welcomed may be misplaced to some extent. The scale might be tilted in the right direction depending upon the character of those who would lead it. Many inventions of the nineteenth and early twentieth centuries, such as the radio, have brought mixed results. Once Europe was empowered by them,

most of the world was enslaved. Even the leaders of the colonized masses were denied access to radio until they had achieved independence. Starr sounds rather pessimistic about the much-touted promises of new technologies:

> The popular vision of the future based on new information technology: tendency to overgeneralize the moment. The WWII and the Cold War created uneasiness about new technology, today's peace and prosperity has encouraged confidence that the new technological revolution has wholly positive effects: it will revitalize democracy and strengthen individual freedom. Recall similar forecasts, of the 1920's, for democracy about radio. Today's new technologies plainly have an awesome potential for centralized political control.[4]

On the one hand, the Third World has the rare opportunity to do business with the richer nations of the West and thus improve its material existence. These less-developed countries (LDCs) certainly need trade instead of aid to attain sustained development and maintain their dignity. But, on the other hand, they expose their economies, polities, and societies to the risk of neocolonization via cultural domination in the initial stages. The LDCs fear losing their cherished values that have enabled them to survive despite their poverty and technological backwardness. Their dilemma is not drastically different from that of a physically exhausted simple rustic farmer who has just arrived at the city marketplace to sell his load of cheap agricultural goods. Naïve, nervous, and in desperate need of cash, he finds himself constrained to yield to the pressures of the buyer's market before he can even think of returning safely to his family before nightfall. Is this poor farmer truly a free seller in a free market?

Free market and collective decision making are older than—or at least as old as—human history, and have little to do with Western capitalism as such. What is new today is the complexity, magnitude, and speed with which the so-called free trade and free capital flows have been occurring, with the help of modern transportation and telecommunication. There is no established correlation between democracy and capitalism or between the free market and democracy. Neither can one discern any such relationships in light of the current crises in the Pacific Rim economies. Nor is there any clear correlation between political systems and financial vulnerability. The only clear correlation is between good governance and resilience in the financial crisis. Mahbubani illustrates the fact that

> the true test of the viability of values is not shown in theory but in practice: South Korea and Thailand are two of the three countries that were most deeply affected by the crisis ... (They were) given the highest marks by the West for their moves toward democratization. The three open economies least affected by the financial crisis, Taiwan, Hong Kong, and Singapore, have very different political systems.[5]

This brand of capitalism, based on individualism and consumerism, historically has prospered with the support of mercantilism, imperialism, colonialism, and expansionism. In its new and more subtle form, it gets its sustenance from the neocolonialists' control of raw materials and sources of food and energy in weaker nations. The four powerful instruments of this control are myopia, money, the media, and the military. First, the cognitive myopia based on the narrow concept of a human being as *homo economicus* has been popularized through the United Nations (UN) and other technical aid agencies. The economic model is the measure of all development. Second, mechanisms of constraints and release of money are maintained by such international financial institutions as the International Monetary Fund (IMF) and the World Bank.[6] Third, the media is often used as a second front, both in war and peace, against adversaries and for the allies' economic interests. Fourth, there is no pure economics anywhere; it is all political economy backed by military muscle. Should the outcome be contrary to what is desired, sanctions or force can be employed to change it.

But the poor nations have their own anxieties. They fear that these tools have been, and still are being, used by the powerful North to facilitate the process of global capitalist control of the South. Globalization has been accelerated tremendously by the liquidation of the Soviet Union as a balancing force, and by the latest IT developments at the service of the United States, the sole remaining superpower. However, the globalization of genuine freedom and democracy, they suspect, will have to wait until this IT is distributed more evenly. When that occurs, the free flow of information about, and candid discourse on, the real aspirations of people everywhere will be able to contribute toward multifaceted development: spiritual, sociocultural, economic, and political.

Within the United States, debates about relevant issues are raging among various segments of the population. The main thrust of most discussions is to highlight the phenomenal potential of IT and its global access, regardless of race, location, and gender. This does not depend so much upon the mixed reactions of other nations, which have been either

positively and/or negatively affected by IT, as it does upon the sustainability of their impact on the American economy, its leadership, its competitive edge, and the legislative agenda to facilitate global adoption of IT with American standards. Despite the limited technical know-how of many American politicians and bureaucrats, there is bipartisan consensus on most issues, with the exception of cryptography (encryption) and copyright laws to protect intellectual property.[7] Many IT leaders still disparage the poor quality of debate and are edgy and uncomfortable over delays in decision making on even urgent issues.

One major negative aspect in the view of Americans concerned with the globalization of trade is the loss of millions of jobs to other nations and the importation of highly skilled foreign workers. This is giving rise to hostile xenophobic tendencies against immigrants on the part of those who cannot see the need to upgrade their own skills to fit in with the changed circumstances. Those who do understand point to the need for a better command of the English language itself, and for learning foreign languages and knowledge about other faiths and cultures. Herschberg emphasizes the need for a global general knowledge of the humanities and social sciences, quick thinking, creativity, and problem solving. While the ability to use computers and simple statistics is important for all, overall improvement in school educational standards is a must if people are to survive in the new highly competitive cyber marketplace. He stresses performance-based learning and evaluation, and says:

> Whosoever controls the high wage human resource, controls the economy; and whosoever controls that controls everything else ... Business cannot wait; change now. Collaboration among various societal institutions to bring about this change is a must.[8]

There are many outstanding issues between the United States and the European Union. Two of the most important issues are the attempt to slow down each other's lead and whose standards should be accepted globally. No concern or compunction is expressed in these debates as to what the business supported and abetted by their own global media may be doing to the rest of the world. On the contrary, the United States seems to be sending the same message: globalization is a reality, and it is happening and will continue to happen within the framework of American norms.

There are other areas of contention between the West and the rest of the world, such as national sovereignty, the role of foreign-based and supported nongovernmental organizations (NGOs), multinational corpora-

tions (MNCs), and other supranational agencies; an ideology espousing the free flow of capital and information; transparency; band-width spectrum allocations; taxation laws on cyber transactions; global public policy decisions; national security; the continuing cultural onslaught, especially Western attitudes toward sex and pornography; social responsibility in journalism; the imposition of American laws and standards on other countries; American relations with UNESCO and the International Telecommunication Union (ITU); and the speed of globalization.

Any mention of the victims' worries is only casual, and any damaging consequences generally are blamed on the failure or backwardness of victims themselves or are "innocent mistakes." During a discussion on the 1997 financial crisis, Stanley Fischer, the IMF's deputy managing director, admitted that "he had underestimated the probability of such crises arising in a world of capital mobility."[9] In another interesting interview on the eve of the American raids on Afghanistan and Sudan, Tom Friedman agreed with Charlie Rose, his host, when the latter likened these raids to the West's gun-boat diplomacy. He then stressed that globalization is basically a Western agenda on its own terms and that the West is its biggest beneficiary. Globalization is happening within the context of unprecedented American military and economic power. The United States' role in this arena is to discipline those who deviate from its agenda. The discussion proceeded to show that during the Cold War, the criterion of the West for cooperating or punishing others was whether a nation was procommunist or pro-American. Now the criterion is hardware and software: if you have a sound institutional infrastructure, we can do business with you.

> The operative force is the software: the institutional capacity to allow integration with our economy. No country can thrive without tying its economy with the global economy; and cannot survive if it cannot protect itself against its vagaries and attacks by regulating its capital.[10]

In this international political climate, the LDCs are faced with a serious dilemma: power is no longer balanced. Representatives from the knowledge-based industries in the United States and the European Union, through G-7 negotiations as well as their adequate relevant know-how, can consider most issues of interest to them in a thoughtful manner. At this stage of the game, however, many government bureaucrats from developing nations, barring a few, may not be able to consider all ramifications of decisions made in international forums on complex IT issues. Western nations, particularly the United States, are pushing hard for quick deci-

sions on crucial policy issues impacting the world, without necessarily recognizing the legislative jurisdiction of United Nation bodies like UNESCO and the ITU.[11]

Thus, globalization of Western hegemony is occurring in an atmosphere of fear and panic, uncertainty, and mutual mistrust. While there is bipartisan agreement on what the American business, religious, and other volunteer community organizations, supported by their government and military, can do to the rest of the world, there remain many serious outstanding issues even within the United States. For example, there is a lot of fear and mistrust concerning mergers and downsizing, layoffs, widening income gaps, and other problems between workers' unions and owners *cum* management. Moreover, there is continued mistrust and struggle for power between political parties, coupled with myriad social problems: racism, crime, sexual perversion and violence, drugs, gender bias, lingoism, and the breakdown of the family as a basic social institution.

This is not to say that free global trade can occur only in perfect societies. We have to agree with Folsom, Jr., who says:

> America's most successful businessmen are portrayed as "robber barons" ... We ought to distinguish between market entrepreneurs who succeed by creating better products at lower cost and political entrepreneurs who use governments to gain an unfair advantage.[12]

Concurrently, Buchanan[13] complains how economic globalization is "the great betrayal" and explains how American sovereignty and social justice are being sacrificed to the gods of global economy.

However, the world is worried for its own reasons, such as the application of double standards and the selective application of laws to favor some and punish others. And it is asking: How can nations trust one another? How can we have genuine transparency unless all sides abide by universal moral principles, and support and follow international laws based on justice and lasting peace? This is a question of candor, credibility, and overall character in dealing with one another in the global marketplace.

Having identified the major issues, I will concentrate on a few issues related to the global political economy, the genuine promise of IT (assuming an even playing field), and on the global media and culture. All of these areas are interconnected. Ben Bagdikian considers "anonymous superpowers" to be a threat to American cultural autonomy and the free flow of information and ideas. And

the highest levels of world finance have become inter-
twined with the highest levels of mass media ownership,
with the result of tighter control over the system on
which most of the public depends for its news and infor-
mation.[14]

The Global Political Economy

Immediately following World War II, the Marshall Plan for Europe
and, later on, other UN or non-UN donor agencies from the West to the
LDCs were designed to institutionalize an economic model of develop-
ment. Financial institutions (e.g., the IMF and the World Bank) and trade
regulation agencies (e.g., GATT) were supposed to promote long-term
prosperity through stable exchange rates, worldwide development, and
open trade. To enhance American control over the global economy in a
climate of foreign direct investment (FDI), some functionaries strategized
to modify the operational patterns of these financial institutions.
Therefore, as part of the rescue packages offered to the Pacific Rim's
sinking economies, the major share comes from the United States, despite
its being in debt to the tune of several trillion dollars. The secret is
"Yankee ingenuity," reflected in turning simple concepts into complex
institutions. The success of these institutions lies in strengthening and
controlling them through "smart," competent, and highly skilled human
resources supported by political stability at home.

Haass and Litan[15] attribute these policy changes to

the gap between the legacy of Bretton-Woods and to the
fact that the economic and political demands of the mod-
ern world are growing. Much of this change is due to the
phenomenon called "globalization": a) revolution in low-
cost rapid communication, information flows, and travel;
b) official policy change to reduce barriers to the move-
ment of goods and capital across national boundaries; c)
intense and intrusive economic interaction (explosive
growth of capital markets, demise of fixed exchange
rates) among large agencies and entities outside govern-
ment control.[14]

After the collapse of Soviet communism, many willing and unwilling
changes had to be made in the attitude of LDCs toward international rela-
tions, especially when it came to economic matters. Most countries want
expansion of world trade and access to each other's markets. They also
encourage direct foreign financial investment in their economies, for they

now have export-oriented growth strategies. Their attitudes toward MNCs somehow have become more favorable. The formation of regional trade blocs has led to fewer trade restrictions and greater volumes of regional trade, which is now being challenged to some extent by e-commerce. Owing to low labor costs, nations are losing their competitive edge, which already had been affected by robotics and computerized design and production technologies.

Increased competition and demand for foreign capital within developing countries has led to intense pressure being exerted to acquire it. National borders have become less important in dealing with MNCs, which has resulted in MNCs being able to thwart the national governement's attempts to protect its people. Complex international trade linkages have engendered greater interdependency and dependence on FDI, edging out weaker local competitors and leaving national industrial development unprotected and underdeveloped.[16] Globalization is the third phase, the first two being the reduction of trade restrictions after World War II and the OPEC money transfers of the 1970s.

Lester Thurow identifies five factors behind globalization: the end of communism; the technological shifts from manufacturing to brainpower industries; demographic changes never seen before; the global economy, and the absence of a dominant economic, political, or military power.[17] One can clearly see the liquidation of Soviet-style communism. However, too much has been made of the technological shifts in the media and academia. The process of manufacturing has been computerized, and the need for excessive manual labor and heavy machines has been greatly reduced. This, in turn, has led to a huge economization of energy. But it is hyperbolic and misleading to assert that manufacturing has been replaced by brainpower industries. Admittedly, demographic changes are multidirectional for economic as well as other reasons.[18]

The economy has become global for all the reasons stated above. At the time of this writing, the interconnected global economy has shown a seismic volatility.[19] During the last few months, the Russian ruble has lost three-fourths of its value. Owing to this crisis, the Dow Jones Industrial Average also has lost about 600 points, which sent jitters across the globe. The reasons are not all purely economic; some are political. Internal political pressure on President Yeltsin sought to force him to reappoint Chernomyrdin as Prime Minister, even though he has been rejected already by the communist-dominated Duma. Yeltsin often has been accused even by the Russians of behaving like a dictator. Still, Washington remains enamored of him. Our choices are often presented as the best alternative under the circumstances, an attitude that helps us to justify cooperating with him by pretending that all other options are even worse.

Interestingly, despite the fact that the Russian economy does not account for a significant part of the world economy, Russia's politico-economic changes have aroused fears across the globe. However much one is adept at compartmentalizing morality and business, the personal, political, economic, and social domains of our lives do influence one another. Stephen Cohen's comment on the current Russian situation seems to be on the mark: "This economic catastrophe might cause political tidal waves and serious social discontent."[20]

Thurow's last point that there is no "dominant economic, political, or military power" is open to debate. The weakness in his argument can be seen in Thomas Friedman's analysis, provided above, and in the strident messages the United States has been sending across the world since its victory in the Gulf war. This also resembles the claims of some right-wing groups that the United States is being forced to surrender its sovereignty to the UN, while the world already is worried about the high level of American control over the UN.[21]

Thurow also distinguishes between ideology and technology.[22] He sounds pessimistic about the future of capitalism as it exists today, and thus seems to be preparing the world to accept the "deeper disconnect between democracy and capitalism" and "shift from consumption ideology to builders' ideology."

Thurow seems to be familiar with the reality of the ruthless devastation that certain forms of privatization are wreaking in parts of the world.[23] Judith Teichman gives a clear and cruel example from Mexico.[24] In some Latin American countries, Church leaders have been tortured, and at least one has been clubbed to death for speaking out in favor of laid-off workers protesting the new capitalist enthusiasm. In her review of Thurow's criticism of the problems facing capitalism, Ruona writes that he is exemplary but weak on suggesting alternatives.[25]

This so-called "absence of alternatives" is precisely the argument of most supporters of Western capitalism and liberal democracy; there is no reference to the Islamic alternative. On the contrary, academicians associated with the administration were quick to declare "the end of history" on the eve of the Gulf war, and the ultimate consumerist patient suffering from all sorts of spiritual and social ills was presented as "the last man" after the war.

Ruona also faults Thurow for "failing to discuss the role of corporations in the process of building an economic future." She seems to be oblivious of the hard feelings that these corporations have left across the developing world. Thurow offers commendable perspectives on performance improvement, strategic human resource development (HRD), integrated high-performance work systems, learning organizations, new orga-

nizational forms, "connectivity," and new technologies to deliver interventions.[26] All of these improvements are vitally important for meeting the demands of an evolving capitalism, as knowledge and skills are the only sources of comparative advantage in the competitive cyber marketplace.

By its very nature, the global market is interconnected, volatile, speculative, and subject to rumors, panic, and manias. Mahbubani uses the example of the new policy of the Chinese government to show that "the only correlation that is clear is between good governance and resilience in the financial crisis."[27] Good governance traditionally is expected of all public and private organizations, including the government. Globalization supported by new IT has impinged greatly upon national governments' decision-making powers and sovereignty. Real authority rests with those who control financial institutions at the local, regional, national, and international levels.

Bhagwati, therefore, is very critical of the ideology of capital mobility. He agrees that there is a correspondence between free trade in goods and services and free capital mobility. He also admits that interfering with either will produce losses in efficiency. At the same time, he warns that free trade on paper, like insurance policies, should not be regarded as free capital mobility. In the event of an economic crisis, such international financial institutions as the IMF impose conditionalities like manipulating interest rates and re-evaluating local currencies, which may or may not be in the long-term interests of the borrowing countries. Instead of restoring confidence in the local currency, such policies may have an opposite effect.

> Besides suffering these economic setbacks, these countries have lost the political independence to run their economic policies as they deem fit. That their independence is lost not directly to foreign nations but to an IMF increasingly extending its agenda, at the behest of the U.S. Congress, to invade domestic policies on matters of social policy ... is small consolation indeed.[28]

This loss of independence, as well as the risk of crises in a hypothetical "crisis-free world," are features of the global economy in which risks, not gains, are widely shared. The size of the possible gains for small countries in a climate of free capital mobility has been grossly exaggerated by the coterie of a Wall Street-Treasury complex. Losses have been ruinous, and gains only negligible.

The more severe the crisis, the more business it generates for Wall Street and the banking industry. Panic is more likely to force the rustic

rural farmer to sell his burdensome wares for whatever price he can gar-
ner under dangerous circumstances. Again Bhagwati reflects:

> Like cats, crises have many lives, and macro-economists
> … have been kept busy adding to the taxonomy of crises
> and their explanations … They have been used to bam-
> boozle us into celebrating the new world of trillions of
> dollars moving about daily in a borderless world, creating
> gigantic economic gains, rewarding virtue and punishing
> profligacy. The pretty face presented to us is, in fact, a
> mask that hides the warts and wrinkles underneath.[29]

One wonders why the world is moving in that direction. The answer
lies in the role of interest groups and their lobbies, which have exceptional
clout in Washington. They can manipulate the interdepartmental mobility
of the top movers and shakers among the Treasury Department, the IMF
and the World Bank, Wall Street firms, the State Department, and other key
public and private institutions. The serious effects of "free capital mobili-
ty" might be discussed occasionally in academia, but find little or no space
in the media's public domain, dominated as it is by "robber barons." In a
speculative world fed and fertilized by panic, manias, confusion, and the
contagion of ideas, rumors spread by the global media can play an impor-
tant role in manipulating any country's volatility. This situation is exacer-
bated by the symbiosis between the polity and the economy.

It is easier to manage, even to kill, the monster of one's own making.
Once the real beneficiaries of the system realize that the world has
become aware of the ruinous consequences to their nation's economies,
they can repose in the hope that changes in the governments concerned,
the creation of new institutions, and proposing a few cosmetic solutions
might smoothen the situation for further "business opportunities." Haass
and Litan identified the problems of globalization in other countries as

> rapid flows of investments based on emotions like
> rumored hopes and fears; and at home as displeasure at
> job losses, income inequality, stagnant or deteriorating
> real wages, and the absence of the fast track authority to
> the President, to empower him to directly negotiate with
> other foreign agencies without waiting for the Congress's
> prior authorization every time a bilateral and multi-later-
> al arrangement is discussed ... Globalization has become
> a target. Its dangers must be navigated successfully or the
> United States and others may be compelled to backtrack,

> diminishing the free movement of goods, services, and
> capital, which would result in slower growth, less tech-
> nological innovation and lower living standards ... Poor
> economic policymaking, corrupt banking practices, dis-
> honest accounting, and unrealistic currency alignments
> can have an impact on societies far removed.[30]

Despite the fact that the American economy is less globalized, yet its millions of jobs depend on developments elsewhere. This seems to be happening right now.

Again, Haass and Litan believe that the crises of globalization will not be solved either by a super-IMF or an unfettered market. They recommend a third way, which consists of three possible approaches to solving the problems of the global economy, particularly its volatility due to free and rapid capital movements. First, embrace the free market and abandon IMF-like rescue packages. The problem here is that the limited crises may turn into something much more costly, and that the United States cannot afford the collapse of countries vital to its national interests like South Korea, Canada, and Mexico. One might ask the proponents of this policy: Does this mean that other economies are expendable?

Second, tame the dangers of globalization by creating new institutions to lend structure and direction to the global marketplace. In the same vein, George Soros, an important international investor, suggests supervising international capital movements and regulating credit allocation. To achieve these objectives, he suggests creating an International Credit Insurance Corporation charged with providing guaranteed loans up to a certain amount in exchange for a fee, provided that borrowers reveal the real and complete financial picture of their country. This strategy would allow international financiers like himself or institutions controlled by people like himself to act as supranational agencies dealing with individuals and private institutions behind the back of their own governments.

As stated earlier, all nations do not make the preposterous assumption that businesses act with the milk of kindness when faced with the public interest. Rightly or wrongly, they somehow trust their sovereign national governments to guard their interests against foreign capital. Undoubtedly, externally imposed and protected monarchs and dictators may collaborate with foreign robber barons.

Third, some recommend "a managed approach to leave the basic architecture of the international economy alone but still do some remodeling to discipline financial operations." India seems to have adopted this approach, for its local industries have been feeling the excessive heat from global competition. It has called for protection for at least five years.[31] It

was more or less the same strategy used to handle the 1980s savings and loans crisis in the United States.

Similar efforts are already under way at the behest of the IMF: improving the supervision of financial institutions, instituting modern accounting practices in banks and corporations, and opening markets to foreign investment (i.e., more transparency and reliable information). Haass and Litan consider more transparency and information as neces-sary—but not sufficient—for markets to avoid excesses. In addition, some more risk sharing by creditors ought to be built into the system, coupled with a modified version "of formal bankruptcy codes and mech-anisms for restructuring the balance sheets of heavily indebted firms without necessarily shutting them down."

Those who oppose globalization talk of the need to safeguard workers' interests. There is resistance to globalization, but Western experts urge patience, perseverance, and the fight against corruption. However, the real problem seems to be lack of source credibility. The so-called experts from international banking institutions need to convince those on the receiving end that their own dealings are free from bias, self-interest, and double stan-dards. Florini (1998) points out the glaring examples of such double stan-dards: "a) advocates of well-established norms such as corporate privacy and national sovereignty want to hide information from prying eyes, while b) promoters of transparency tout it as the solution to everything."[32]

In 1917, the Allies demanded that Germany demilitarize and sought to enforce it by establishing verification procedures, including interna-tional inspection commissions. Afraid that one day the United States and Britain might be subjected to the laws of their own making, their officials argued that "they had no right to inspect the territory of a sovereign nation against its wishes." They were also fearful "that such intrusion would be more likely to provoke friction and hostility than to bolster the cause of peace." The then-Secretary of State, Frank Kellogg , was frank enough to admit that "the United States would not tolerate inspection of any of its facility by any outside agency."

Florini wonders how, 80 years later, the same nations repeatedly attack Iraq for complaining about their violation of its national sovereign-ty. They had the "moral courage" of starving millions of innocent sick and dying women and children through the severest embargo against any nation in history. They totally disregarded and, even worse they actually repeated, the more flagrant violations of UN decisions committed by India on Kashmir and by Israel on southern Lebanon, the West Bank, and the Golan Heights.

Their contention is "now that secrecy is difficult because of the new surveillance technology." So if there are no secrets and things are already

so transparent because of technology, why is it necessary to demand it against the will of a nation? The counterargument is posited: Due to democratization and globalization, transparency is the part and parcel of these two trends. The world is embracing new standards of conduct, enforced not by surveillance and coercion but by willful disclosure: regulation and revelation: in security, politics, economics, and environment, corruption is exposed.

Florini explains the inherent problems with transparency. First, since there are no compatible and universally shared norms, the demand for transparency from some and not from others will aggravate conflict. A case in point is Israel's nuclear capability and weapons of mass destruction. It is reported to have an arsenal large enough to bombard all Arab capitals in a matter of hours. Second, some secrets are legitimately worth protecting, such as corporate trade secrets or information that might result in someone becoming an innocent target. Third, it is a matter of privacy, for information can easily be misused or misinterpreted (e.g., the application of double standards about intentions). British nuclear weapons qualify it to be a member of Big Five, but the nuclear ambitions of India, Pakistan, or Iran make them dangerous nations. Fourth, even if all conditions were right, transparency does not always work, as we can see in the emission of obnoxious chemicals from American industrial plants, as well as with the tobacco and alcohol lobbies, in which there has been no behavioral change. After such a huge tumult and uproar against tobacco, the prospects of tobacco legislation in the United States is almost dead.

Then there is the important question of the power, or the lack of it, upon which hinges the ability of a nation to implement the will of its people. For example, if 51 percent of Americans say we should go to war against country X, we can and do implement such a will. On the contrary, even if 100 percent of Tanzanians vote for taking a similar action against the United States, they dare not do it. How can the issue of double standards be resolved? This is not a mere political issue; rather, it is a moral issue and cannot be compartmentalized in cases of grievous wrong against the innocent. It all boils down to the ultimate question of character trustworthiness.[33]

Other psychological barriers to free trade include a lack of risk taking, an absence of faith in free trade similar to that found in the United States and Britain, and the fact that regional trade blocs have not yet borne the desired fruits.[34] On the contrary, many countries gradually tend to backtrack to their old patterns of international trade and protectionism.

The Problem and Promise of IT

As has been pointed out, the new and emerging IT can be used for the good and the detriment of humanity. Therefore, the question of control and the values of those who control it is very pertinent. But in the secular culture of the West, constructs like lasting values and ideology, beliefs and philosophy, equality and justice, and history arouse great disquiet and discomfort. Secular fundamentalists feel very uncomfortable when someone invokes the relationship between the nature of a technology and its purpose in life, or when they question the values of those who control this technology. In light of Frederick William's assertion, these questions are pertinent indeed: In the nineteenth century, whoever controlled the sea lanes controlled the world. In the twentieth century, whoever controlled the airways controlled the world. And, in the twenty-first century, whoever controls the airwaves will control the world. Now with the control of space and cyberspace, the controllers' reach and sweep are exponentially ensured. Thus the cultural questions of control by whom, for what purpose, and with what beliefs and values become more timely, relevant, and crucial.

The remainder of this section discusses technology's neutrality and the negative and positive aspects of its use; the historical background of the dispute between the United States and UNESCO on the issue of fairness in communication; and its real potential for the LDCs in general and for Muslims in particular, assuming a level playing field. In view of the technological edge that American Muslims have over their co-religionists elsewhere, I have drawn upon their proposals with regard to IT's promise for the Musilm community and humanity at large.

The Mixed Bag: Theoretically, there is the potential for everyone to use the new IT for whatever purpose they wish. In our enthusiasm for it, we often forget the unfortunate distinction between literate and illiterate media. While radio and television are basically illiterate media that most people can use for good or ill, the print media (e.g., newspapers, magazines, and journals) are literate media, which also are subject to use or misuse. The Internet is currently a literate medium. With its multimedia audio and visual components, however, it has the potential to become an illiterate medium, with users having little or no control over its contents. There is no doubt that new IT can be used effectively for even spreading literacy across the globe. The extent of control over IT will determine the differential impact of the consequences of use and misuse by some on others. Both opportunities and vulnerabilities need to be considered. Sardar and Ravitz question the absolute faith in the goodness of cybertechnologies and their ability to enhance the quality of life.[35]

Sardar writes:

> The fundamental contradiction of Western culture is the West's Janus-faced presentation of "projected innocence, standard-bearer of civilization, the enforcer of universal laws and morals," coupled with a darker side, "psychotic inner reality" of the "pathologically untamed." On the one hand, the West gives us universal declarations of human rights; on the other, it is a dominator culture bent on opening new territories and filling them, genocidally, with adventurers, perverts, and butchers of the innocent.[37]

In his review of Sardar and Ravitz, Sobchak comments that the authors are biased in thinking that

> cyberspace is the West's newest New World, a new frontier in which its Janus-faced tendencies are abundantly evident ... And as cyberspace grows, it absorbs, appropriates, and ultimately trivializes anything non-Western by forcing it to become a representation of itself in terms of ultimately dictated by the network's underlying Western assumptions ... it is the latest form of Western wise to resist.[37]

The reviewer gives no proof for his opinions, except for pointing out the anti-Americanism of the French: The French resist for fear of losing the French language and French literature, for 90 percent of all IP/URL addresses are in English-speaking countries. He also mentions that totalitarian regimes would like Sardar's argument. Husain joins the fray on the side of Sardar and Ravitz, stating that the term *franchise*

> testifies to: an underlying cultural conflation of political liberalism and capitalism that pops up in anything Americans do. This conflation signals a contradiction between political freedom and monopoly capitalist domination ... which lies at the heart of American culture ... It is mystified by its reappearance at the superstructural level in the notion of free-market competition. The Internet repeats this pattern.[38]

Let us see who wins in the competition between genuine political freedom and capitalist domination.

Here it is necessary to point out the false dichotomy between Islam and the West. Truth discriminates between right and wrong, not between compass directions. There is a lot in common in the ideal ethical principles of all great faiths, especially among those claiming to follow the Abrahamic tradition.

The West, as generally defined, has contributed greatly to humanity's material well-being. Its positive contribution to the development of science and technology, as well as management, administration and organizational development remains unmatched in history. However, its secular media, which has a huge impact on non-Western media, attacks the common core of these faiths. They seem to suppress all traces of God-consciousness and accountability to God; belief in the lasting validity of divine guidance; the balance among the demands of mind, body, and soul; righteous deeds; racial equality; decency and decorum; respect for life; cooperation on establishing peace with justice for all in all domains of life; and generosity and general concern for others. On the contrary, they promote greed and individualism to the point of selfishness; consumerism, materialism, and instant gratification of sensual pleasures; freedom from any sense of guilt based on their misinterpretation of Freudism; and dog-eat-dog competition based on Darwinianism.

What globalization, popularized by the West and its powerful media, have contributed culturally has been gauged by Bennett. In terms of our public policy, the failure is not so much intellectual; it is a failure of will and courage. Right now we are playing a rhetorical game in which we say one thing and we do another. Consider the following:

1. We say we desire from our children more civility and responsibility, but ... we steadfastly refuse to teach right from wrong;
2. We say we want law and order in the streets, but we allow even violent criminals to return to the same streets;
3. We say we want to stop illegitimacy, but we subsidize the kind of behavior that guarantees it;
4. We say we want to discourage teenage sexual activity, but in classrooms we are eager to dispense condoms;
5. We say we want more families to stay together, but we have made it easier to get divorced;
6. We say we want a color-blind society and judge people by the content of their character, but we continue to count by race and gender;
7. We say that we want to encourage virtue and honor among the young, but it has become a mark of sophistication to shun the language of morality.[39]

According to Sommers, contemporary young people are suffering from "cognitive moral confusion"[40]; not only that they cannot distinguish between right and wrong, but they even question whether such standards exist. The threat of such moral relativism to society is greater than any external danger. Roche traces why we are in so much trouble to the loss of values, truth, moral literacy, trust, empathy, independence and confidence, family, and loss of faith.[41]

These are the internal sociocultural accomplishments that the West wishes to offer the world through its globalization campaign launched by such Western international players as Disney-ABC, Time-Warner-Turner, Viacom, Newcorp (Rupert Murdoch's media empire, supported by its non-American partners Bertelsmann, Hachette Filipacchi Televisa [Mexico], TVB [Hong Kong], and TV Globo). The grip is truly global.[42]

Roth-Vinson[43] has raised very significant and searching questions about the relevance of the Internet revolution to Muslim cultural identity. No one except Muslims can answer whether or not they regard the Internet as a new paradigm of knowledge, information and work, or a threat. Its global grip has serious implications for Muslim communities worldwide. "Not all Muslim countries consider it beneficial; in many ways, they do not particularly see this exchange [as] conducive to strengthening Islam." The Internet has revived some dormant issues: national integration, cultural preservation, gender roles, and social change.

Proponents of the Internet "argue that Muslims can harness the Internet to access the non-Muslim audience eager to know about Islam, and that Muslim organizations are already linking believers worldwide through the Internet. The main problem is about the limited control they have to block out un-Islamic materials." On the contrary, some governments are levying new restrictions. Roth-Vinson, however, is convinced that "it will be through this medium that Muslim communities worldwide will be active players in the historical debate of Islamic values in the changing modern world."

Again in the context of Muslim attitudes toward the new cybertechnologies, Mujahid and Matharu consider the politics of globalization and communication opportunities for the Muslim world as "two apparently contradictory sets of developments." If, on the one hand, empowerment of the weaker party through IT is a strong possibility, at the same time there could be some exposure to increased vulnerability. Mujahid seems optimistic that "the developments in the art and technologies of communication are changing the world in positive ways." Here he seems to assume that the use of military power will be abandoned with the growth of economic warfare in cyberspace, and that "information technology will continue to

become more accessible, cheaper, and miniature in size." It will then have "tremendous potential of empowering the individuals vis-à-vis the state and smaller nations vis-à-vis powerful nations."[44] These are certainly big "ifs," which have a remote chance of becoming "whens." Undoubtedly, all realize that they have become more vulnerable. For the haves this vulnerability is only ripples, while for the have-nots it might mean ruination.

On the nature of such a vulnerability, Starr reflects that computer networks carrying messages also can record who sent and received them. The newest digital copiers can retain and transmit all reproduced images to censors, which makes them highly suitable for use by whoever has the latest and more advanced technology.

> Equally disturbing are the sundry ways new information technology can be used as weapons of war and terrorism. Because we are more interconnected, we are also more vulnerable, and the prospect of "cyberwarfare" reduces the geographical protection from foreign threats that Americans have enjoyed thanks to the oceans. That's also globalization.[45]

Historical Background: To measure the purity of the milk of kindness in the hearts of the secularist dominant force for the rest of the world, especially for the LDCs, one must refer to IT's history. The telecommunication arrangements until the 1970s were still controlled in most of these countries, especially in Africa, by the former colonialists. Print and nonprint media coverage was myopic and totally tilted against their cultures. Most nations called for a rearrangement of the existing information and communication order, and the New World Information and Communication Order (NWICO) movement soon was afoot. The term was coined by the Tunisian statesman, Moustapha Masmoudi, at the 1973 Algiers conference of nonaligned nations, which "urged justice in at least the possibility that the founding principles might be based not only on the genuine needs but also on the self-activity of the masses themselves." The United States/NGO lobbies entered the fray in 1976, and opposed NWICO on the ground that it would increase government control of the media. This was followed by the Voices of Freedom Conference in France, and later by Lome, Togo, (1979) Havana (1979), and New Delhi (1983) conferences, each of which reiterated the LDCs demands with some modifications, and stress the five Ds: decolonization, development, democratization, demonopolization, and disarmament.

The LDCs were only asking for a balanced representation of themselves and their interests in the media, a development that could only be

realized through a relative degree of self-reliance with regard to news and information sources and resources. Their aspirations were reflected in the recommendations of UNESCO's MacBride Report (*Many Voices, One World*):

> 1) LDCs to develop their own communication systems; 2) networks to set up increase in news flows; 3) increase in national book production; 4) national production of broadcast materials to overcome dependence on external resources; 5) communication components in development projects to receive adequate funding; 6) nations to expand their basic telecommunication services; 7) need for major international research and development efforts to increase supply of paper; 8) tariffs be lifted from free and balanced flow of information; 9) electromagnetic spectrum and geostationary orbit to be shared equitably as the common property of mankind; 10) effective legal measures to limit the process of concentration and monopolization; 11) attention to special needs for women's development needs; and 12) measures to ensure protection of cultural identity of nations suffering from cultural dominance.[46]

This movement was led by India's Indira Gandhi. The American reaction was swift and hostile, as reflected in its withdrawal from UNESCO in 1984. The United Kingdom and Singapore followed the American lead. The United States, under Reagan, saw this development as a challenge to, and a possible loss of, its control. When Mrs Gandhi was assassinated later that same year, NWICO lost a strong supporter. UNESCO's multifarious programs benefiting the LCDs suffered a great deal from budget cuts and non-payment of its dues by the United States and some others.

Since its withdrawal from UNESCO, the United States has demanded the application of three criteria for rejoining it: financial and budgetary discipline, management reform, and major programmatic changes to avoid anticolonial and anti-imperial politics, especially any criticism of Israeli actions against Palestinians and other Arabs.

After the Gulf war, the NWICO movement is almost dead. Contrast the euphoria about the new IT dominated and propagated by those who have no other goal except profiteering and are parroted naively by LDC intellectuals: "The UNESCO's one-way flow of information characteristic of the New World Information Order is imprecise. Now two-way and N-way flow is a reality due to planetary technologies."[47]

It is not coincidental that George Bush, during the Gulf war, used the phrase "New World Order" as a retort when responding to the LDC's desire for a more balanced coverage of their cultures and other interests in the global media coverage. UNESCO complains of growing disparity between North and South, and points out that the current information flow is even more unbalanced.[48] Hamid Mowlana has put it the best: "The New Information Order (NIO) has re-emerged but it is that of the advanced industrialized nations."[49] The Harare Declaration urges cultural ecology, namely, that operational decisions to be made by media professionals ought to be in the interests of the public. It also emphasizes that their involvement in decision making on issues impacting their lives should be increased. There is a shift of power from the public to the private sector. The question is: Are we really promoting responsible journalism or the cheap sensual consensus journalism now so common in the West? "Who says what to whom, and with what confidence? Imaginations are seemingly getting more and more beyond control with allegations that are drawn from faulty logic. Entertainment has replaced the objective of unbiased reportage."[50] The truth has been an early casualty of this relativism and constructivism.

Antar also seems to have a realistic view of the cyberworld.[51] He sees both the danger and the potential strength of the Internet in its complete decentralization. It is this aspect that allows anyone with the necessary equipment to become part of the Internet. However, he also realizes that this is not the whole truth—the English language, the Latin script, W3C, Internic, Netscape, Microsoft, and Yahoo are some of the small number of Internet institutions now dominating cyberspace. He advises Muslims to become self-sufficient and start generating the requisite knowledge and organizations that will allow them to serve the cause of truth, which the dominant culture refuses to do and even actively opposes. Antar recommends establishing Muslim institutions and empowering them to compete with the existing powers so that our concerns will be recognized. As a first step, he proposes establishing the Islamic Internet Council (IIC) to foster Islamic Internet institutions; study information science as it applies to Islamic knowledge; register Islamically relevant domain names; establish a central Web site authentication, certification, categorization, and categorization center; develop Qur'anic Arabic computer/Internet standards; censor harmful/un-Islamic sites for Muslims; and develop an "Internet Shari'ah" to create an Islamic computing environment.

The main mission of the IIC would be "to bring about an island of order in the chaos of the Internet for bringing to humanity the message of Islam through the Internet."

E-Commerce: As indicated earlier, e-commerce offers both individuals and organized groups, large or small, tremendous and almost unlimited opportunities on the Internet. In the United States alone, it is estimated that the volume of e-commerce will reach the $300 billion mark, and worldwide to several trillion dollars, by the year 2002. Remaining within the Islamic framework of honesty, integrity, compassion, and public weal, Muslims need to tap their creativity and innovative faculties in order to earn their livelihood by all permissible means. They should make the best use of this and other IT to serve the cause of Islam.

Traditional business was based on, or at least was greatly facilitated by, geographic proximity, and the concept of regional markets all over the world was promoted on the same basis. The slim pickings of NAFTA supports the "death of distance" assertion by Mazrui.[52] Gordon has pointed out the traditional "natural market fallacy" by showing how Latin America is a European, and not an American, market. In the days of containerized shipping and electronic communication, distance is dead and irrelevant. There is no difference between trading with Kuala Lumpur and Rio de Janeiro, for the need for natural markets based on geographic proximity is now relatively unimportant. He further proves the point by stating that "in Germany there is realization that while intra-European trade ... has brought many benefits, it has more recently been accompanied by industrial stagnation and a growing inability to compete in world markets."[53]

The volume of business is not undergoing this phenomenal change alone, for it also can be seen in the ecology of commerce and in the sense of growing social responsibility. This claim, made by Davis, needs to be taken with a grain of salt:

> An increasing number of businesses are learning to balance profitability and social responsibility ... Most of us still carry around the subliminal idea that ruthless behavior beats the competition and good behavior is money out of pocket. But the data show that the traditional ideas are wrong. Social responsibility makes sense in purely capitalistic terms ... Social responsibility can't follow the catalytic converter model. In a car, you can leave the engine unchanged and just bolt on a new part to take out the pollutants. But a genuine commitment to social responsibility transforms not just what a company does, but also how it thinks.[54]

Undoubtedly, there is growing pressure on traders and governments, as discussed above, for transparency and for eradication of corruption from

business practices. However, there is hardly anything to celebrate yet in this regard.

To facilitate e-commerce, high-tech hotels are coming into vogue and providing access to high-speed Internet connectivity. "This is the beginning of a trend toward public Internet availability, [and] it will soon be commonplace at all public places."[55]

How can Muslims become a part of this brave new world? Baidas suggests they establish IAATRADE-USA with a view to developing an Islamic Virtual Shopping Mall.[56] The goal is to provide an opportunity for Muslim professionals to reach rare markets for their expertise and talents. He recommends that it be linked with chambers of commerce in the Muslim world as well as in the West. "The cooperating Muslim nations can disseminate information on their socio-cultural, political and economic opportunities." In addition, he proposes the establishment of an Islamic library and bookstore, and many chat-group sessions with writers, religious leaders, and other elites.

Economic espionage is another growth field of e-commerce. Muslims, while not participating in it, at least must be aware of it. American Muslim businesses are exposed to espionage conducted by foreign individuals and governments. Such activities cost American corporations, individuals, and institutions a great deal of time and money. American allies, such as Israel and France, are the biggest culprits. For all Americans, the serious issue is how to pursue mutually beneficial, cooperative, and strategic relations while our economic relations with our allies are acquiring a sharper competitive edge.

> The end of the Cold War, the global spread of market capitalism, and an understanding that weapons of mass destruction are neither morally legitimate nor particularly useful tools of statecraft have, collectively, elevated the importance of economic considerations in international affairs.

The areas posing special challenges to the business community include economic vs. industrial espionage and technical intelligence capabilities. Some of the new devices are used in the industry (e.g., Techint, Sigint, imint, comint, elint). NACIC is well aware that the Internet and e-mail networks are exploitable by foreign collection efforts. One response to this threat is Title II of the Economic Espionage Act. Section 301(b)(1) [which] amends the definition of computer crime to include offenses "committed for the purpose of commercial advantage or private financial gain."[57]

Despite temporary problems in investing in foreign businesses, investing globally from one's home is a strong potential growth area of e-commerce. Zimmerman, et al.[58] suggest proactive strategies through advanced planning by carefully identifying the relative strengths of competing economic enhancement programs, and then conducting a thorough analysis of positive and negative aspects of each feasible planned alternative. They discuss the concept of "proactive guerrilla investing," a strategy of selective investment in key sectors with one or more world-class skill areas. Their recommendation is to identify the most likely and feasible investment agency on which to focus. They also suggest establishing innovative technology villages for business and community living purposes, both domestically and internationally.

Organizational Development and the Internet: In addition to external factors, the plight of Muslims is attributable to some internal factors, among them the crisis of dualism in the educational sytem and the ending of analytical deduction (*ijtihād*) in matters related to Islam; continuing backwardness in scientific and technological fields, after having laid foundations for most basic sciences in their heyday; and the inability to organize themselves (into an *ummah*) and their affairs through systemic thinking and proactive action. This situation is not confined to their so-called Third World backwardness, which is a whole other issue. However, with regard to the Muslims' continuing disunity and lack of organization, they are more or less in the same state as many in the West.

Despite this reality, American Muslims have accomplished a great deal as far as their mere presence is concerned. New IT offers them unprecedented global opportunities to organize themselves at the community level and consolidate their activities at cosmopolitan, regional, national, and international levels. At present, there are over 1,000 Islamic web sites,[59] including those of such national Muslim organizations as MSA, CAIR, AMC, MPAC, CIE, and the Wisdom Fund of Enver Masud. This last organization, in addition to "upwebbing" excellent special features on current issues, has also made available useful information on Islamic issues. Since November 1995, thousands of people have accessed the IslamiCity Web site, Islam.org, worldwide every month. Such resources must be expanded.

In the same vein, Akhtar[60] has proposed building an international Islamic intranet. He stresses the fact that IT revolution has vastly altered the way we obtain, code, store, deliver, retrieve, and share information via multimedia. So far, hundreds and thousands of Islamic centers and schools have set up their own homepages, and both Muslims and non-Muslims have accessed and benefitted from them. Now, he says, there is a need for

more uniform and better organized efforts to further facilitate access while maintaining the current ease of use and security. Competent paid and volunteer assistance is needed for concurrent dissemination and updating of databases. Elimination of duplication of effort, through the intranet, and extranet access to authorized external users can be achieved easily.

Tout draws our attention to the phenomenon of fast information dissipation and near-total connectivity, in which even Muslim Americans are lagging behind. He suggests a virtual linking of all participating centers along the lines of immediate news sharing; Internet-based faxing and mass distribution of information; audio-video conferencing and broadcasting of events of interest to communities; a signature gathering system for petitions and proposals; and automatic registration for various functions and events offered by the Center (e.g., taking pledges for support and membership drives.)[61]

In the true spirit of globalization, Rahmat emphasizes the need for an increased volume of already occurring transboundary communication via IT. He proposes creating virtual communities on the Web leading to a VNC (Virtual Network Civilization)

> composed of virtual cities like EduCity, MediCity, TransCity, MediaCity, GovCity, MoneyCity, SportCity, GreenCity, IndustryCity, InfraCity, and LivingCity. The LivingCity's constitution will be the Islamic Shariah, and all its needs will be met according to Islamic rulings.... There is an opportunity to create a living virtual society that practices Islam as their way of life irrespective of what nationality they belong to."[62]

The most basic but very important part of organizing Muslims locally and globally is to share and help implement the Web site construction and maintenance techniques. Jafri defines Islamic Web sites in terms of

> learning environments for Muslims and non-Muslims about Islam as a way of life, as a source of information on commerce, information technologies, financial transactions and trading, business training and services, media relations, promotion of modern Muslim achievements, dawah efforts, secular education, and Islamic education.[63]

Issues pertaining to planning, designing, developing, launching, maintaining, and updating Web sites,[64] as well as linking with others are

involved. Related problems include security, financing,[65] training managers and other volunteers, developing simple user-friendly relevant guidelines,[66] and content selection (e.g., information on the Web site about prayer schedules, determining the *qiblah* [direction for prayer], moon sighting, and the Islamic calendar).[67] There is a need for effective horizontal and vertical integration and communication across all races, ethnic backgrounds, genders, occupations, and socioeconomic strata in order to achieve the goal of unity, justice, and peace for all. Personal contact and the human touch are the best methods, but e-mail, Web pages, and other IT dissemination techniques are the most feasible alternatives to overcome time, money, and distance constraints.

Clearinghouse of Research and Other Information: Muslims everywhere need to be reminded of the great emphasis Islam lays on seeking knowledge as a religious imperative. This is to prepare them to promote, mainly by practical example, righteous conduct, and doing their best to eradicate all forms of evil (i.e., un-Islamic) behavior. Muslim history is credited with seeking and spreading knowledge and wisdom by making pertinent resources legally and logistically accessible to as many people as the current technology allowed. However, for various reasons, there currently is a huge gap between this ideal and the prevailing reality in the Muslim world.

Caidi[68] bewails this gap by pointing out that in countries where the seeking of knowledge was considered a religious duty, one can expect libraries to flourish and develop. Yet librarians in the developing and Muslim worlds are not even considering the transition from traditional to digital library resources. With the latest revolution in IT and the Internet, the roles of libraries and library professionals are changing. She reflects on the potentials and the problems caused by the IT for the future of libraries, and attributes this lack of library development in Muslim countries to the slow adoption of innovation.[69] The question is whether or not technology will reshape the library institution there.

The explosion of knowledge, a very positive development, has a slight downside: plagiarism, unauthorized editing of materials, and misattributing unauthentic things to people. In addition, there are multifarious sorting needs. In this connection, Ahmad[70] points to the need for establishing a central clearinghouse of information on astronomical, religio-juridical, political, and information science analysis. He raises two important issues related to PICS (filtering devices): protecting Muslim children from objectionable materials, and filtering in/out materials according to scholarly opinions of choice. This, he believes, will eliminate any sectarian or government censorship, as well.

On the same issue of the authentication and certification of Islamic information, especially of the Qur'an, Shah says

> the issue is becoming increasingly difficult with the Internet due to ease and speed of editing the electronic words. Oversight is difficult. Muslims need to evaluate instantaneously the accuracy, authenticity, and certification of Islamic knowledge on the Internet and other electronic media.[71]

He has identified six fairly complex issues for consideration: accuracy of Islamic knowledge on the Internet; differences between the process of authenticating print and nonprint materials; knowledge and competency of judges; difficulties in validating materials; evaluation of existing oversight groups; and determination of a rating system for Islamic sites. In view of the ever-growing number of Muslims in the world, Jafri indicates the need for continual research through audience input and feedback.[73] He has started to collect such data on important qualities of a good Web site. In addition, he has rated the top twenty sites in the world, their common features, areas of improvement, and what additional traits and applications the audience would like to see in them.[72]

Education and Training on the Internet: In capitalist liberal democratic societal structures, it is understandable and a given that the private business sector dominates all communication networks, including the Internet. At the same time, private ingenuity and entrepreneurship have played their role and have been used for educational purposes. Business became involved in order to ensure everybody's access to this technology, at least in the education and training sectors, in the hope of obtaining human resources that could cope with the demands of aggressively competitive world economies. They have invested a fortune in promoting the Internet in formal, nonformal, informal, and incidental education and training. The field of distance education, which relies on correspondence courses and audio-video educational materials, has been revolutionized with Web publishing and Internet courses. In the United States, the goal of connecting all schools with the Internet is progressing steadily.

Among the LDCs, India tops the list in producing the largest non-Western talent pool of computer professionals. Moreover, India exports software engineers by the thousands every month to the United States, the European Union, and to whoever else can afford to pay for their services. Silicon Valley owes a great deal of its progress to about 100,000 engineers that have left India for the greater opportunities in the United States

since the 1960s. Muslims need to work much more diligently and smarter to emulate this record.

Apart from using the Internet as a distance learning resource in various disciplines, we also must consider education and training in educational communication and instructional technology. That involves training those who, knowingly or unknowingly, have to undertake instructional responsibilities. Those who do so knowingly are teachers and professors at various levels of the education ladder or trainers of adults in on-the-job training environments. The imperceptible involvement in instructional activities can be exemplified by referring to the communication that occurs, for example, between a doctor and a patient or between librarians and their clients. Learning from television is considered informal if it occurs on a regular basis without a learner's being aware of it. Learning from a single or a few more events without any deliberate effort is an example of incidental learning. All possibilities are there on the Internet.

Instructional competency cannot be taken for granted in everyone who is called upon to teach. It is therefore necessary for Muslim community leaders and those responsible for making direct or indirect decisions about planning, budgeting, or evaluating educational activities to ensure that such people are competent. Ahmad and Shah have discussed the transfer of knowledge to the Internet as a transforming process from print to digitalized format, and as involving issues related to the nature of the content (e.g., authoring or scripting, screen writing, sound, animation, dramatization, special effects) involved in the latest IT use in instruction and learning.[73] Siddiqui questions the Western assumption of value-free instructional technology and points out a serious lack of instructional technologists among Muslims, both in the realms of hardware and software. He proposes a series of workshops for this purpose, and a fuller discussion of instructional issues from a broader Islamic perspective based on universal values related to human mission, message, medium, methods, milieu, and measurement. He also recommends a paradigm shift from traditional to information revolution systemic thinking.[74]

Ghafoor[75] emphasizes the need for education and training in preparing instructional materials for the Internet. He identified domains relevant to the Islamic Society of North America (ISNA) and American Muslim communities. Unus and Husain[76] provides a rationale for an Internet-based course in Islamic studies, offering "two reasons: a) difficulty of producing instructional materials from scarce American Islamic sources; and b) students undertaking Islamic studies without the benefit of traditional teacher-student interaction." They also point out the instructors' lack of knowledge of the Internet environments and the lack of student access to the Internet. They distinguish between the Western concept of

knowledge, which they claim is closer to mere information, and the Islamic concept, which is rooted in wisdom. Khorshid[77] seems to provide the answer by stressing the "need to pool our resources together to serve the widely scattered, across the United States and Canada, Muslim communities without adequate learning resources in Islam."

Interactive Learning and Interfaith Dialogue: In addition to the thousands of Web sites with authentic materials on Islam for self-education, there is an ongoing round-the-clock interaction on religion in general, and a dialog between Muslims and non-Muslims.[78] Zaleski asks: "Will denominations keep doctrine and ... believers in a virtual world (cyberspace) when it is so easy to jump from temple to mosque?"[79]

The situation with regard to Muslim-Christian relations in the West is rather fluid. While there is growing realization that differences between Islam and the West are highly exaggerated, certain powerful political interest groups hostile to Islam have been successful in misleading the Christian majority into seeing Islam and Muslims through the prism of Arab-Israeli politics. As Ahmad and Yousef see it, the dialog between Islam and the West has begun:

> In such enlightened interaction there is hope for a 21st century that will be period of Islamic and Western cooperation and not the confrontation that has dominated the past ... For the coming millennium, the potential effects of IT on numerous, emerging universal themes such as multinational diversity, cultural veracity and Islamic integrity are of profound importance.[80]

To what extent a common person roaming in cyberspace is intellectually prepared to contribute meaningfully to a philosophical dialog on these crucial issues can only be answered in the light of the nature, volume, frequency, and sophistication of images, sounds, and textual ideas contending for their attention. Siddiqui[81] urges cultural sensitivity training for the *dā'ī*; much more so for those engaged in global *da'wah* on the Internet. One wrong word written and one wrong approach may cause instantaneous and irreparable damage.

Mohamed stresses the importance of a clear Islamic vision and mission, and proper planning in the use of IT.[82] Many others have proposed some innovative ideas to improve the performance of Muslim Web sites on the Internet through integrating technologies and the advanced use of search engines. In view of the current and potential integration of various disciplines of knowledge, Muslims must become more effective in the art

and science of working in interdisciplinary teams, as the importance of such skills in interpersonal communication and parliamentary procedures are used in interfaith dialog and cannot be overemphasized.[83]

I agree with Husain[84] that the Internet is a political tool. The West has used it to secularize and control the teeming billions in the LDCs as well as their own masses, including Muslim minds, and as a consumer market for information and misinformation. He proposes establishing five scholarly Muslim groups on the Internet: globalist thinkers for strategic planning, social science specialists for globalization and operationalization of Islamic concepts, activists to mobilize the masses for peace-with-justice actions, an intelligence group for creating databases in all areas of knowledge, and technologists to advise on developing search engines and other matters related to science and technology.

Conclusions

The concept of globalization has been rigorously pushed and popularized with the help of the latest information and communication technologies, such as the Internet. Globalization also comes with cultural, political, and economic underpinnings. What values, beliefs, attitudes, and behaviors are being promoted and by whom? Who has how much control over the instruments of globalization? Do those nations embarking on free trade have the human, economic, organizational resources, and institutions to compete successfully in the aggressive climate of the global economy? Do they have the power to defend their economic interests? How much political clout do they have on international organizations involved in ensuring justice? What kinds of societal structures does this globalization imagine? What kind of individuals do these structures seek to produce? These are all very vital questions that have to be discussed with all candor and moral vigor and intellectual rigor. The consequences of the globalization of a free market economy so far have proved disastrous for several countries. This ruination has been consistent with Sir M. Iqbal's description of the affluence of a few in the face of miserable plight of the masses caused by capitalism's interest-based financial institutions:[85]

Apparently there is a lot light of science and technology in Europe.
The fact is that this darkness is devoid of any source of sustenance.
Here, in their architectural beauty, decoration, and cleanliness,
bank buildings are much more attractive than even cathedrals'.
The mode of financial transactions that looks like trade is in fact
    gambling.
This benefits only one (only a few) and means financial death to
    hundreds of thousands.

IT, as represented by the Internet, has given us fabulous opportunities for accessing information not easily available through traditional means. Yet at the same time, they have exposed naïve children and adults to debased music, immoral literature, and pornography. The process of dumbing down moral standards has begun and is sweeping across the globe in the name of modernity. What has been globalized is the decadent myopic secular culture that serves the politico-economic interests of an oligarchy. The hype and euphoria about its equal access and control, as well as its being a harbinger of peace and prosperity for all, needs to be moderated.

Muslims should arrange to be trained in IT so that they can ensure its proper usage in their quest to establish just and judicious societal structures. These are double-edged swords. If we remain just passive users of IT, we become ever-more vulnerable to it. On the contrary, if we master the genie of technology and the techniques of message design for the Internet, we have a much better chance of fulfilling the Islamic mission of establishing peace with justice for all by using IT to realize worthy goals and objectives.

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