

**Gender Perspectives on the Information
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FEMINIST PERSPECTIVES ON GENDER IN THE INFORMATION SOCIETY

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ABSTRACT

The international and western rather than the southern, regional networks have been leading ICT for women, the starting point assumed to be the industrialized-country's level of development. Lack of understanding of varying levels in less-developed and undeveloped countries and regions and the consequent confusion caused was/is a common feature in many southern countries. Different standards of education – as well as gaps or ignorance -- were intimately linked to socio-economic status ranging from the highest international levels of knowledge and sophistication to outdated and irrelevant curriculum that often accompanies abject poverty arising from skewed development.

In large sections of more class-conscious societies where higher education and jobs for women have been permitted selectively, IT (interpret as 'working on computers') meets with male approval as a career choice because it projects an elevated image of working with technology instead of being manual work, while providing a more sophisticated work environment than a factory floor, even though the computer may be serving for nothing more than what a typewriter might in routine clerical work.

At the same time there is considerable ignorance among those with minimal education and exposure to the world of IT, as to its full scope and range of capabilities. For the mushrooming self-styled IT training centres, maintaining such mystification is deliberate. They have been over the years minting money conducting elaborate courses and bestowing diplomas for supposed training for which no examinations are held, the majority of learners ultimately settling for jobs that are limited to word-processing and e-mailing.

General education also leaves huge gaps in content which includes a huge amount of outmoded and inapplicable material, adding to the widespread misconception that the computer not only processes input but gathers and feeds it in off its own accord without human intellectual intervention and can be retrieved merely by the push of the correct buttons.

In the agricultural countries of the South, the first taste of new technology was devastating for women. It came in the shape of the Green Revolution and threw peasant women out of employment (who performed 75% of farming tasks) en masse, and was devastating for both human and environmental health, the worst effects impacting on women and children. Even after a several decades when the negative effects were widely acknowledged despite government indifference, and the internet spread

enough information that could have been used to advantage at the NGO and CBO level for advocacy purposes (including the countering of the Green Revolution dispelling the propaganda and spreading information and re-teaching organics) this has not occurred to date in the less-industrialised countries, or only negligibly. It was not until the last decade that IT began to be used more intensively by women's NGOs, mainly for networking purposes, but it has not extended to benefiting rural women who constitute the women's majority.

It is not that IT has not brought benefits, but they accrue largely to the well-educated and creative professionals among the elite and middle-class minority. Others have not been able to use IT to further their careers or their goals because training opportunities have not been available for the gamut of possibilities and they have been left unaware. Consequently most development, education and health workers who use IT have failed to use their abilities creatively to carry benefits possible through it to the people they seek to help.

For example, in Pakistan, neither has government nor NGOs have taken advantage of IT to enable on-the-spot consultation, diagnosis or advice for local medics by urban specialists on illnesses of poor rurals in distant villages. IT has failed to be used in many other areas where speed of transmission and exchange of information is of utmost importance. Even the simple device of centralised e-mail transmission and receiving services at post offices and other private centres which would have been a benefit for the illiterate masses or those too poor to own a computer, was not thought of.

Part of this failure has been the lack of clear and adequate information of the range of possible uses as well as lack of imagination in promotion and advertising by IT vendors. Marketing was and is done mainly by private enterprise, and the message was directed exclusively to individual customers, institutions and commercial interests. It was never promoted for broader civil society uses such as activities related to consumer and citizens rights', human and women's rights, the justice system and rapid arbitration, and development NGOs and CBOs. Many government departments including libraries were astonishingly slow in adopting IT for documentation, processing and rapid information retrieval purposes. In Pakistan at least, official reluctance was in great part due to the practice of denying information to the public so as to maintain greater control as well as a source of illicit earnings in exchange for information.

Greater awareness has spread about the use of IT but not necessarily of how it can be modified for specific purposes. The need now is not only to

continue to make it as user-friendly as possible but to actually demonstrate applications for many different purposes, especially for women.

IT has constantly been confused as being the goal, an end in itself, instead of a tool, the intellectual and cultural content being overwhelmed by technological ways and means. It is imperative to illustrate where and to what extent it can be successfully applied as well as where it is not desirable or not feasible to do so. After all, as a technology, it can be as subject to misuse as put to good use.

Many of the Millenium goals are not dependant on IT for success; nevertheless IT may accelerate or better facilitate some of them to an extent. Overall however, and in some cases in combination with the electronic media, IT offers a major solution to gathering and exchange of the still largely undocumented mass of ancient and established (even if fallen into disuse) as well as new knowledge about and by women including the highly varying interpretations of feminism, and the stages reached at each, across South Asia, towards the next logical steps in empowerment and development.

FEMINIST PERSPECTIVES ON GENDER IN THE INFORMATION SOCIETY

Once one is hooked to computers, one is generally hooked for life. And although I am not an IT specialist, like countless others, I'm heavily dependent on what IT can do to serve my purpose. I need to explain my understanding of IT as it might be much narrower or too broad for the IT professional – because, for me IT is what it can do for me. It is everything from computer and computer usage of any kind to Internet and designing of hardware and software for whatever purpose.

IT technology and the computer work-station that goes with it, has been without question one of the world's greatest boons and it's helped those women who have been able to get their hands on it, to bridge some artificially created gaps (by a man's world, whether thoughtlessly or intentionally to keep "women in their place"). Where it is in use IT has speeded up productivity and greatly mitigated logistic difficulties or pangs of separation caused by great distances. How can anyone have a quarrel with instant and unlimited communication with people at the other end of the world, or constantly updated knowledge at one's fingertips on the website? Never before has anyone been able to educate oneself on new and unfamiliar subjects so quickly and comprehensively as has been made possible today by IT.

IT has been a boon for women in many ways. It is necessary to spell this out because not all technologies and not all IT applications are necessarily women-friendly. Sometimes this is because women do not happen to access to it or are actively denied it. Furthermore, IT is a double-edged sword. Depending on the user's intent, it can go far for the greater good; it can also be used with devastating consequences for corrupt, criminal and aggressive purposes. That of course is true for many other technologies as well. But as we all know, IT is that much more powerful and is heavily used for offensive military purposes in peacetime as well. The need is also therefore for the positive purposes to be at least one big step ahead of the negative to be able to counter the former.

In the South, most benefits to date have accrued largely to the well-educated and creative professionals among the elite and middle-class minority. Others have not been able to use IT to further their careers or their goals because training opportunities have not been available for the gamut of possibilities and they have been left unaware. Many governments have been late in introducing basic IT at the high-school or college level, considering one has to take into account an approximately 5-year time lag and preparation time before the user puts it into routine professional use. Consequently many development, human rights, social

scientists, education and health workers only got to learn the use of computers on the job which took some more time to perfect before they could use their abilities to carry the benefits to the people they sought to help. As we all know, in any development, women are always last in the line of beneficiaries and often get left out altogether.

It is not widely known that in the industrialised North, small businesses account for more technological advances in their own areas of expertise than do major corporations and government-funded research. This speaks for individual creativity that finds expression in an enabling entrepreneurial environment of personal freedom and flexibility. Lacking the basic education and opportunity, most developing country people, especially rurals, farmers and craftspersons, are unable to make further innovations in their respective areas of specialisation that modern but locally appropriate technology (including IT) makes possible.

On the contrary, investors, both local and foreign, have exploited their creativity for large-scale profit with the originators receiving little or no benefit. Information technology has also served to narrow the scope of creativity when workers are confined to designing specific items solely for mass-production instead of making allowance for individuality and uniqueness in a market of wider appreciation. This is in keeping with the industrial objective of increasing worker productivity while reducing number of workers and adding to unemployment.

On the other hand, just as IT is used to liberate the individual, it can and has been used to entrap one under a regime of planned obsolescence and patents that make for lifelong dependency. This can be draining financially, leading to increased diversion from creative exploration, because greater resources and effort must be put into increasing production or profits to cover costs and maintain living standards. But catching up with new computer models and programmes in midstream can be a nuisance. Not every person or organisation has the luxury of hopping from the second or third-latest to the latest in a year or two, least of all women's NGOs. In my own example, my patience with one of our regular suppliers finally withered despite good after-sales service. Why? -- Because he never lost an opportunity to try and press the latest something-or-other on us. He wasn't interested in the nature of our work or our limited budget. He just wanted to unload something on us and felt there was always something we could sacrifice for it. But we couldn't always, and didn't want to. When he began a new sales pitch to the effect that things were changing every few months and we would soon have to get used to the idea of changing all our equipment and accessories every six-months or annually at the very least, I solved my problem by simply

dumping him. For all his natural charm, he was being user-unfriendly. I never missed him or the new models thereafter.

So the ability of IT to constantly building on itself exponentially has proved to be a mixed blessing for consumers. IT's developments have tended to be much faster than can be absorbed by the Southern market where the majority -- for whatever reason -- are not IT-savvy. Hardware and software are replaced by new versions or faster models every year and the customer is constantly left discontented with what she has, having being conditioned to expect, like it or not, constant upgrading and expenses to match; it is discouraging enough to drive small entrepreneurs especially away from anything that could get a boost from IT. While people do not expect technology to remain totally unchanged in their lifetime, the average user seeks long-term use – at least ten years if not more.

This brings about the situation of too much technology; much is packed into varied software and enhanced capacity, many components of which the consumer will never need to use but has to purchase -- because what is wanted does not come in a basic unit but as part of an ever-expanding package in a frenzy of overproduction and wastefulness for the sake of profit. While this may seem the manufacturer's -- not the consumer's -- worry, it is, apart from having to pay a constantly higher price for extra unnecessary capability, such irresponsible overproduction and wastefulness that has led to today's global depletion of natural resources and global warming. We know they are seriously affecting natural biological and environmental processes, and some of the materials for computer manufacture are said to be toxic as well as indestructible. Yet profits do not have to be dependant on selling more and more units; plenty can come from maintenance and repair and recycling including reusable casing – a safely biodegradable casing is said to have been invented already.

Too much IT, too soon

Like television, IT is also being held responsible by many critics for negatively affecting the mental and social development, education, psychology and attitudes of children through premature introduction and bad timing. Countless concerned parents, especially mothers, will echo this. A US survey has actually found that children introduced to computers at an early stage tend to do poorly or less well in their schoolwork, affecting the growth and development of their vocabulary and thinking and retention processes. This includes intelligent children – diverted by the computer's amazing capabilities are they. It is like not teaching a child to add mentally and manually but to put him on a calculator at the outset,

so that he never knows when or where he has gone when the calculator fails or the batteries begin to die down.

In children, play, problem-solving and invention are an outcome of external stimuli as well as the compulsion to discover and to derive enjoyment by various means. The natural instinct to use imagination in play, perhaps devising one's own games or play-acting, or to reflect creativity in art or craft or handicrafts is slowed down or even arrested when children are saturated with a surfeit of ready-made tech-games which they soon tire of only to seek more new spoon-fed excitement. Most computer/video games are designed for the individual player and they serve to isolate the child from other people, including other children, creating serious gaps in socialisation and the sense of personal responsibility in the context of his or her family and community. Unconfirmed reports suggest that girl-children are less inclined to be caught up than boys because most games revolve around violence and extreme competitiveness, but they may not be entirely immune as far as appreciation of humane feelings are concerned. There are indeed games wherein technology stimulates creativity instead of involving it in numbing play, but they are not in the majority, and they would best serve at a postponed date.

South Asian feminism

Feminism has evolved and diversified over the past couple of decades, and it could be said that South Asian feminism today -- which is and has to be more flexible -- may not coincide in entirety with western feminism which has gone onto other levels that has found alternatives, for example, to the traditional family system, or seek the same 'rights and opportunities in highly glamorized careers traditionally reserved for men such as military combat, sophisticated engineering mega-projects and space exploration, at the same time excepting less attractive ones such as skyscraper construction or factory slaughter-houses even though they may be partly operated and monitored by computer.

In fact, many aware women – including those with little or no education -- also see themselves as feminists, however with feminism understood as an ongoing process that evolves with what answers the needs and strategies undertaken which in turn are in accordance with the circumstances and pressures at a given point of time.

Consequently, IT is a stepping-stone in women's emancipation taking place simultaneously with somewhat improved 'male enlightenment' among large sections of more class-conscious societies such as in Pakistan

where higher education and jobs for women have been permitted selectively. IT (interpret as 'working on computers' even if it is only word-processing) meets with male approval as a career choice because it projects an elevated image of working with technology instead of doing manual work, while providing a more sophisticated work environment than a factory floor, even though the computer may be serving for nothing more than what a typewriter might in routine clerical work. Or keeps her indoors mostly at her desk so that she is not 'exposed' to the public eye too much. Nevertheless, it is a start that may have upwardly mobile prospects.

Yet another aspect of the picture is that while the traditional female 'secretary' is going out of style in the west for all but the senior-most executives (since all office personnel are expected to do their own computer-supported correspondence and reporting). But the position is still widely maintained in the South for women of higher qualifications and capabilities for work that is more correctly definable as managerial and administrative. So the designation is often pre-fixed with the pacifier of "executive" to make it acceptable. Since there are salary ceilings for secretarial posts, it is a means of getting top-quality women personnel at a comparatively lower cost and keeping them there indefinitely, although equally competent and conscientious male personnel are hard to find, at least in Pakistan.

There is also considerable ignorance among those with minimal education and exposure to the world of IT, as to its full scope and range of capabilities. For the mushrooming self-styled IT training centres (in Pakistan), maintaining the mystification is deliberate. They have been over the years making money conducting elaborate courses, much of it theoretical and serving no career purpose and inapplicable on starter jobs, while bestowing diplomas the achievement of which no examinations are held, the majority of learners ultimately settling for jobs that do not require more than basic word-processing.

Appropriate Technology

A once much-heralded term and approach that quickly fell out of use was Appropriate Technology. Appropriate technology was the choice of a stage of technology or a locally designed one that suited the economics, culture and current state of development in a Southern country. It particularly focused on rural/agricultural areas where women who do up to three-fourths of all agricultural work, and could have greatly benefited, but did so only in negligible numbers in some countries. It was a short-lived experiment because most governments were more interested in

sophisticated technology in the name of modernisation, not the public interest, and certainly not for women's benefit. It was also mistakenly understood to be only a temporary technology until a society was educationally prepared and technically equipped to take up the latest technology, rather than letting locally appropriate technology that fit a country's specific needs evolve at its natural pace. This is even unlike standardisation where manufacturers force people to adapt to the technology that they offered rather than the other way round, Appropriate Technology is something that has always existed through the centuries, especially in the South and especially among women.

A popular feminist slogan from the eighties about technology went so: "If it isn't good for women, it isn't appropriate." This is apt indeed, given that women do most of the work in the world and not just in the agricultural arena, and enjoy an unwanted monopoly over most of the most menial, monotonous, uncomfortable, but indispensable yet unrewarding tasks. While IT in its simplest applications is helpful for all, it does not seem to have gone into developments with a gender perspective. Appropriate Technology could have gone a long way to make such hard lives easier but it became a standing black joke in much of the South where paternalistic and egoistic men would insist on taking the training meant for women whom they claimed would be passed on but never did.

It is known that many things such as various courses of study, women's medicine, and machine tools and sundry other equipment, were always designed with male users in view or were based on inadequate and presumptuous male perceptions about women. That slowly began to change but not entirely in every field. For the woman always faced with multi-tasks, the ideal technology is one that is not cluttered with 'extras' but is adequate to address all her needs. Many find staring at too many icons that are meaningless and have no use for them, is like trying to pick out a particular child from a bunch of uniformed and equally grimy schoolchildren after a football match in the rain.

As E F Schumacher pointed out over three decades ago, a developing country's choice of technology is perhaps its most critical decision. But for the past half to three-quarters of a century in most former colonial countries, the choices have not been made by the people or governments to reflect the public interest (India being the exception until a decade ago), but mostly by international lending agencies, foreign investors and consultants moulding and taking advantage of the ill-conceived, self-serving goals that have led to the condition of perpetual odious debt in such countries.

User-friendly IT

In just about any trade or craft or profession, skill comes from repetition of the procedure; and the greater the number of actions to be taken and remembered, the longer it takes to internalise such that manual operation comes automatically without much thought. Once this has happened with one 'technology' (whether in the form of a machine or a software), it becomes a comfortable habit that's hard to get rid of. Furthermore it is a hassle to re-learn every time a new one is introduced.

Manufacturers make fortunes out of churning out products every year which are not necessarily needed immediately, but they serve the marketing strategy of planned obsolescence. Neither the average person nor the government using taxpayers resources, can afford to buy new computer systems every year or two. The public cost is greater because scarce resources are used wastefully, and a greater amount of the toxic is taken up than necessary.

One valid complaint comes from professional women who at some stage have to hold a baby and pick on the keys at the same time very often for a few years at least. In the heyday of the electric typewriter one could type with one hand, somewhat more slowly, but the job would get done. About 25 years ago I fractured my right elbow, but I never missed a day of work on my machine. The early computer did not have a mouse so one could manage that with one hand too. But today's computers are very demanding of both hands. Why can't there be a keyboard designed for one-hand use, without a mouse and preferably square so that one could easily reach all the important keys as well as the touchpad with a single hand-spread? It would also allow users to rest one arm at a time when they suffer from 'computer-elbow'. When I was struck by computer-elbow a year ago, I had to resort to the oldest technology of all – my hand manipulating a pen. The one-hand computer, both right-hand and left-hand versions, would be a boon for the disabled who have lost an arm. I'm sure many who emerge from the Iraq war would appreciate it.

As far as one knows, there have been no surveys done, country and occupation-wise, of what the widest spectrum of users really want -- apart perhaps from those of professionals in the sciences, medicine, engineering and architecture. For example, the ordinary user, including people like myself, essentially wants a word-processor and not much beyond e-mail and surfing the Internet. For word-processing, a few practical fonts rather than fifty or a hundred, spell-check in a single version of English and a single national language, a daily household accounts grid and calculator, ready-made grids of different sizes that can be filled as is without having

to be modified), two or three fixed formats, e.g., double-spacing with indenting and left-side aligned; single spacing with both sides aligned. And that's it.

And so, in the world of IT, the computer itself can inadvertently become a major problem for the woman user, particularly when the computer is overloaded with programmes that are never going to be used. It does not mould itself to the woman's needs but forces her to mould herself to what it can do. Since the men consistently ignore it, one would like to see women IT technicians take out as much messy cabling as possible from computers, and give me a user-specific computer without having it cluttered up with unnecessary and unwanted programmes and accessories that distract or fill up memory or slow down performance. For the general user, one would like to see simpler computer equipment that doesn't double its cost in needing an air-conditioner to perform well without glitches, and is immune to dust and damp. That is a major failure on the part of manufacturers. Couldn't women get into hardware too so that we have simpler equipment than can be locally manufactured and easily maintained by local technicians ?

Clearly, in designing for the individual woman, nobody can know her IT needs better than another woman, especially when market research on the subject is lacking. One has never heard of a single major computer/IT company widely surveying the real needs and wants of women consumers. It would be nice if something like that were done for South Asia. About a year ago, I read in the newspaper that India would soon be producing a general-use computer for only 10,000 Indian rupees or 15,000 Pakistani rupees. We wouldn't be able to get a serviceable second-hand computer for that price. It was the most wonderful thing I'd heard in a long time about technology. Has it appeared yet? Do please export it to us - maybe put up a joint venture or something. -- At least for women's sake.

IT and agriculture

In the South, the first taste of new agricultural technology was devastating for women. It came in the shape of the Green Revolution and threw peasant women out of employment (who performed 75% of farming tasks) en masse, and was devastating for both human and environmental health, the worst effects impacting on women and children. Even after a several decades when the negative effects were widely acknowledged despite government indifference, and the internet spread enough information that could have been used to advantage at the NGO and CBO level for advocacy purposes (including the countering of the Green Revolution by dispelling its propaganda and spreading information about and re-teaching

organics) this has not occurred to date in the less-industrialised countries, or only negligibly. It was not until the last decade that IT began to be used more intensively by women's NGOs, mainly for networking purposes, but it has not extended to directly benefiting the rural women in their work, mainly due to non-allocation of funds but also out of ignorance as to how IT could be put to work for women in agriculture. And they constitute our women's majority !

Cultural hiccups

Although there are increasing number of women computer operators or executives and functionaries for whom computer-use is integral, women in IT itself are not that many in Pakistan. In very conservative societies such as ours, women IT personnel are not sent out in the field for installation or checkouts; most female home-users would prefer to have women technicians visit them with whom they would also feel more at ease to ask questions at length.

Consequently, visits by male IT personnel can take place only in the presence of a male family member. But the men also tend to take over the responsibility of asking the questions and relaying the answers to the women afterwards with far less clarity and success. To some extent this could be solved if After-Sales service maintained a phone-in facility for their customers whose questions could be answered at length, but even this obvious service need does not exist. Instead, the frequent complaint is that of the IT visitor either being impatient and abrupt with clueless customers and therefore quite unhelpful in enlightening them or resolving their issues, or they lack the requisite everyday vocabulary or gift for explaining matters in simple and lucid language. These are not even considered to be problems, only stupid customers.

IT vendors themselves need some awareness-raising done to them. While there are agents who provide after-sales service for hardware, there are increasing numbers who deal only with software, that too reluctantly and inadequately because they look at computers and accessories as commodities to be sold and forgotten about thereafter. That's not all. Western software producers are notorious for producing huge but the most incomprehensible manuals that are always bought but which seldom get read. There has been no satisfactory substitute for the personal teacher, but users do need a reference manual at hand at all times. And that gave rise to a new enterprise from outside the industry producing manuals that any layperson could understand ! We have quite a few such manuals imported into Pakistan that have been produced in India.

Thanks partly to advertising pushing consumerist culture and seeing computers as status symbols-cum-sophisticated leisure, vendors also confuse IT as being an end in itself focusing only the IT specialist and saleable products instead of as a valuable tool for the widest of uses for every level of user. The intellectual and cultural content is constantly being overwhelmed, often superfluously, by technological ways and means for colourful image-creation that may not be so substantive. It is imperative to illustrate where and to what extent it can be successfully applied as well as where it is not desirable or wasteful to do so. After all, as a technology, it can be as subject to misuse as put to good use.

Socialising the IT person

Lack of education and inadequate information has led to the widespread misconception that the computer not only processes input but gathers and feeds it in off its own accord – all without human intellectual intervention, and can be retrieved merely by pushing the correct buttons!! – Which is also why so many, even with minimal qualifications, want to find jobs in the IT arena. Even otherwise, the full potential of IT seems not to have been explored which could be applied on a range of entrepreneurships and much-needed local services that hold tremendous opportunities for women.

Manufacturers and vendors could do better for themselves and their customers by devoting at least half their advertising money and visibility on entrepreneurial ideas and possibilities as on the product itself. General awareness may have spread about the widening uses of IT but not necessarily of how it can be tailored to specific purposes, especially for women. The need now is not only to continue to make it more consumer-friendly but to actually demonstrate applications for many different purposes. Computer manufacturers take for granted and are always very self-congratulatory about how ‘user-friendly’ their products are; however with products constantly assuming greater applications and capacity, the number of steps to be taken and remembered have ballooned correspondingly which, especially when poorly explained and usually not at all, render them anything but user-friendly; furthermore, what is user-friendly for the male user is not necessarily so for the woman user, a majority of who in the South have had less exposure than men to modern work-related accessories.

When computers were first introduced to the mass market in Pakistan some twenty or so years ago, vendors provided several weeks classes at no extra cost which encouraged a lot of people to buy. This is no longer done, the wrong assumption having been made (at least about women)

that by now whoever wants to buy a computer already knows how to operate it.

To grasp the fundamentals of computer operation pre-supposes at least a middle-school level of education; in others there is no substitute for basic education any more than there is for basic services such as potable water, sanitation and electricity that are essential for the human condition of today.

Consequently scarce resources cannot be committed to closing the digital divide at the cost of essential social services. Many of the Millennium Development goals are not even dependant on IT for success; yet they are the foundation of a desirable quality of life from which IT takes off and the implementation of which can help to better facilitate.

Overall, and in some cases in combination with the electronic media, IT offers a major solution in the compiling and exchange of the still largely undocumented mass of ancient and established (even if fallen into disuse) as well as new knowledge about and by women including the highly varying interpretations of feminism, and the stages reached at each, across South Asia, towards the next logical steps in empowerment and development.

Even IT is not value-neutral

No human endeavour, and that includes IT, is value-neutral because it is the intent behind the use that brings about good or bad consequences. Ill intent in turn can and does pursue the designing of technology specifically for wrongful purposes, whether, for example, it is for high-tech torture or electronic bank robbery. The latter sort especially makes hollow the insistence of developers, manufacturers and promoters of technology being value-free. It is often forgotten is that the usage of information and knowledge is based on the objectives and consequently are never complete but constantly subject to change, modification, new discoveries, updating, and even correction to the point of scrapping some theories and information and adopting new ones, or discarding the technology for something arising from different principles altogether – just as drastic as when metal typesetting was displaced by computers. IT can therefore be faulted for human wrongs or mistakes. And male inventors have made many with regard to women.

The human element

One factor that spurs socio-economic class and gender division is when new technologies produced only for market profits without aiming for overall positive social transformation. They then begin to acquire a force of their own and become a measure of superiority or power or both. This is magnified by male power structures in any sphere and an automatic move occurs to monopolise or dominate the technology and restricting the entry of women to jobs that men cannot or will not do.

Activists and people's movements that have a lot to do with women make it clear that any human activity using any means should be viewed from the human rights point of view (this includes women's environmental, economic and social rights) to determine their desirability or otherwise; that if they are using natural resources, they should directly or indirectly benefit all humanity without being exclusionary, or at least not bring the slightest damage or disadvantage to anyone. Since all benefits are not reaching all people, especially women, the reasons have to be identified if they are to be overcome.

Again, part of this failure has been the lack of clear and adequate information of the range of possible uses as well as lack of imagination in promotion and advertising by IT vendors. Marketing was and is done mainly by private enterprise, and the message is directed exclusively to supposedly 'typical' customers, institutions and commercial interests. It was never promoted for broader civil society uses such as activities related to consumer and citizens rights', human and women's rights, the justice system, rapid arbitration, or for development NGOs and CBOs. Many government departments including libraries were astonishingly slow in adopting IT for documentation, processing and rapid information retrieval purposes. In Pakistan at least, official reluctance was in great part due to the practice of denying information to the public so as to maintain greater control as well as to maintain a source of illicit earnings in exchange for information.

IT for peace versus IT for control

The greatest fear today for people the world over is the aggressive move towards the privatisation of information technologies by superpower militarist minds and the most powerful of IT multinational corporations that they collude with. The efforts for the privatisation of the Internet is also being pursued through the use of IT itself. Very subtly and deceitfully, the technology that efficiently documents and processes information is equated with the right of monopoly over the information content itself which has nothing to do with the technological process. Thereby, public information is being turned into a saleable commodity by also denying

rights to the use of their own information. This has to be stopped at all cost.

Today, more than ever before, information in its dissemination, withholding and use directly impacts on the human condition for better or worse. It is integral to the well-being of the individual and civil society for people to be free to protect and assert their personal, political and all universal human rights. Public information cannot therefore be allowed to be restricted, bought and sold like commodities, whether by cartels or local monopolies.

It is only fear of a conscienceless and brutal superpower over the past century and more that has never had any compunction about killing, destroying and violating human rights to destabilise peaceful countries and steal their resources, that prevents governments and most other people from strongly taking issue against such behaviour or voicing their fears too explicitly. Only major countries with one billion plus populations like India that can afford to do so. And it falls on them to do so in the interests of the entire world including South and South-east Asia. For, the long self-appointed master and policeman of the world, now spells out that assertion in no uncertain terms by making surveillance, censorship, and the invasion of privacy legitimate in the name of unprovable national security.

IT enables prisons without walls, and as usual, women will find themselves the most imprisoned despite physical freedom. Information technology must not be allowed to be co-opted or appropriated by ordinance or dishonest legislation for the exclusive use of the police, military and monitoring use by authoritarian governments or dictatorships or militarists disguised as democracies. It was providential that the expansion of Internet came about at the same time as the re-emergence of US imperialism. IT can be used by activist to help protect citizens in police work, consumer rights, women's rights, human rights, environmental monitoring. North America, less than 5% of world's population, has more than half of world's Internet users while South Asia 20% (one-fifth) of world population, has less than 1% of Internet users.

Basic education before IT

The international and western rather than the southern, regional activist and other civil society networks have been leading IT use for women, the starting point assumed to be the industrialized-country's level of development. Lack of understanding of varying levels in less-developed and undeveloped countries and regions and the consequent confusion is a

common feature in many southern countries. Different standards of education – as well as gaps or ignorance -- were intimately linked to socio-economic status ranging from the highest international levels of knowledge and sophistication to outdated and irrelevant curriculum that often accompanies abject poverty arising from skewed development. IT services are largely confined to word-processing and printout service for legal documents and miscellaneous correspondence, that too in English, which confines such service mostly to urban areas.

When it is needed as a public service, it is government's duty to pitch in, in a timely fashion. In Pakistan people educated in the local language were left behind because no suitable and affordable Urdu word-processing programme was available except from a private entrepreneur who developed one 17 years ago for the very expensive and much admired but less affordable Apple computer. This made it impossible to be pirated, and for many years it sold at Rs. 80,000/- (then about \$250) which confined its use to major publishing houses or composing services. Not until recent years did an inexpensive programme become available for general use. Now people would like to see e-mail in Urdu or other national language, now Romanised in English characters.

Internet -- the new addition to the Global Commons

Most people are aware – except those who have known little education or rights – that common-source or common-use areas such as the air, the oceans, rivers, freshwater, pastures, forests, and other such essentials in the natural world, are not owned by anyone in particular because they are fundamental to human and environmental survival and well-being and therefore constitute part of the local or global Commons. This understanding of what we call '*shaamlaat*' has always existed from ancient times in the South especially because co-operation and mutual responsibility are integral in the cultures. Unfortunately this is not necessarily spelt out in all the constitutions of the world and it needs to be, and adding the public information to the Commons.

Today, more than ever before, unfettered access to information has become essential for individual well-being and self-protection. An independent global authority, based preferably in the South, is needed to have the oversight power to regulate and monitor Internet activities. This was answered by the pre-existing The International Telecommunication Union (ITU) which was created in 1865, and later became a United Nations agency. Instead the ITU has been muscled out, essentially by America. The Internet Engineering Task Force and the World Wide Web Consortium do what ITU should be doing. In its habitual, established practice of pre-

emptive imposition, the US government in 1998 appointed an American firm by the name of the Internet Corporation for Assigned Names and Numbers to oversee core addressing systems. It is an open secret that its reasons are anything but peaceful ones.

Of course, many countries including China, India and Brazil objected but there is need to move far beyond objection, self-assertion may be, which we hope to see later this year in Tunisia. The big Southern countries can do that which smaller countries cannot and get away with it. The privacy, the freedom of speech, the non-patentable public ownership of information and knowledge, and human and women's rights are at stake. We should not let USA or the World Trade Organisation (which displaced UNCTAD) do to the Internet what they did to legalise global theft through the Intellectual Property Rights regime after having encroached on what was the province of the World Intellectual Property Organization (WIPO) which was already in existence.

The people's right to know

But blanket national government control can be equally strangulating. No institution has to deal with more information than a government, and nothing can deal with such masses of statistics and facts than IT. At the same time there is no greater source of power and control over a people than monopoly over such all-encompassing, especially when people do not have access. Big bureaucrats as well as local functionaries are usually reluctant to give up their monopoly on information, because that is the source of side-income: information in exchange for a bribe, even though it is supposed to be in the public domain. Denied information for so long, most of our people still don't know that they have a right to information. So, greater awareness needs to be spread about the human right to information. IT is already being used for the purpose for they are able to get across much more than what mainstream newspapers can risk. There will be opposition and even sabotage because the greater the spread of information, the less the power of local functionaries. Consistent and unflagging effort will be needed to turn this into a terminal phase.

IT for a better world for women worldwide

While the general goals of feminist activists worldwide are so not so different from one another, their levels of development, the degree of importance of agriculture in their lives, their needs and aspirations, and therefore their priorities, can greatly differ. For some years now, considerable networking has been taking place between women's groups in the North and South. The university-educated minds mesh with ease

irrespective of where they come from, but when they meet with grass-roots and southern agricultural groups, even within their own country, they do not always find themselves on the same wave-length. Often they make the same mistake that male planners often do: there is the tendency of the highly educated to chart a course for grassroots women that is parallel to the one they themselves have followed, or what they think their stepping-stones should be. This is particularly so when urbanites try to plan for traditional agricultural people on the presumption that the rural world is backward. Information garnered from surveyed women suddenly turn into the knowledge of the specialists who collect it and interpret it. Collated with other information from elsewhere via Internet and other sources for comparison, and then spread through the Internet, they interpret it too, not necessarily as the targeted women see themselves or want to be viewed as. Yet women are able to merge or accept the greatest of differences amicably unlike men who are inclined to be much less tolerant, especially with regard to women's behaviour. The point is that without information or the correct information in the hands whom they concern, IT can hinder rather than help. And without IT in this day and age, many societies and cultures are in a real danger of dying out.

From the Rio Conference to the Beijing Women's Conference and beyond, it is believed that women have made great strides, but have they all?. Yes, the educated have; the urban poor and rural sisters, much less so, many not at all, many more falling behind. Of course, IT cannot take the blame for all that, but IT, wisely and practically used, can help alleviate poverty and unemployment and pull women up to a level to able them to negotiate for a fairer deal in the economy and in trade.

I envisage a day not too long away, when a computer hooked to the internet and with a large-screen monitor, are basic fixtures in homes just like the plumbing and electricity and gas lines. IT can be most liberating for women who will not necessarily have to be out of a job during the years they may choose not to work outside, such as when their children are very small. Many kinds of work can be outsourced to them or they can run an enterprise from home. An example of how IT was put to use for the would-be small women entrepreneur who could not afford computers or an office was an initiative of the First Women's Bank in Pakistan. About 7-8 years ago, its current President opened business assistance offices in the major cities where women could come any time during normal office hours not only to obtain professional guidance and advice (as well as banking services if they wanted) but also to have correspondence and other paperwork done and use e-mail. It gave women a start they might never have had or not until

very late; they did not have to wait for offices, computers and other equipment for their businesses to take off.

If paper made from trees were banned for newspapers, printout paper, and packaging, IT could be responsible for saving the world from further deforestation. It is not that paper cannot be made from alternatives such as agricultural waste and non-tree crops, but given the amount of paper used all over the world for such purposes it would have to be limited so as not to displace food crops. But necessary services could be better offset through greater use of the internet. It would reduce newspapers' dependence on advertising to offset the costs of paper and production while allowing for greater investment in human resources.

The other side of the picture to lack of access to information is access but lack of information itself. And the greatest dearth of reliable and relevant information is on women in the South, or they are scattered and not compiled. The collaboration of IT and women's organisations could make a great difference. Women, most of who seldom have much money to spare, need more open source technology, so they should be the ones to develop them and be done with the overdone exploitation of avaricious patents.

The use of IT can be localised to serve specific small-town, community, village and individual needs. Among the greatest need is for more development in incorporating national and major languages, and one hopes to see more women involved in their development because women have a greater knack with languages and their intricacies.

For my country, I visualise a women's community centre in every village and every urban 'mohallah' of Pakistan that includes television sets and mini-park so that children can be safely occupied while women avail of leisure and learning activities and free or low-cost services including IT and health, and to attend various formal and informal classes going on for literacy, craftwork and other trades. Most importantly to usher them beneficially into the modern age, there would be a bank-cum-post office which can provide e-mail services for the illiterate who can dictate their message to be sent to a post-office at the destination town or village from where it will be locally mailed, pre-paid stamps, envelope, writing and sending/delivery services; from where women can access through an operator, information before embarking on marriage, divorce, taking on guardianship, delegating power of attorney or any other such important step, or advice on health or any household or career matter. It would open women's minds and new avenues for them, and vastly improve the quality of life while providing women with physical and mental space that is exclusively theirs.

In villages or distant area where there is no doctor, IT can enable distance consultation, and an acceptable degree of diagnosis especially if combined with videophone. Similarly IT can enable assistance to where general practitioners or local medics do exist but who need more specialised guidance. I believe it has been done in some locations in some countries; so it is absolutely possible to do it anywhere. Health is among the top concerns of women and this can to a great extent resolving diagnostic problems where doctors are not available, the same applying to both allopathic and traditional medical systems.

I know it is possible if there is political will and the understanding that to make a nation productive, strong and content, one has to cater to each and every individual of each and every concentration of people, no matter how small. I was impressed about a recent feature I read about Madhya Pradesh – the local governments of 22 villages bought computers and then franchised their operation to local people. Operators have a minimum 10th grade education. For the equivalent of about 10-15 Indian rupees, people can obtain printouts of land records, birth or death certificates and such. Or citizens can send complaint by e-mail such as one's pension not having arrived, the local teacher not turning up at one's child's, the government village windmill or handpump not working, or some abuse of power or other wrongdoing. For 4 Indian rupees cents, people can current or daily listing of agricultural commodities in surrounding markets which improve bargaining power with middlemen. Most important the State guarantees reply within a week. This is a model I would love to see replicated in my country.

A recent survey in the west on the performance of organisations based on their gender ratio has found that the more females there are at the top, the better the performance. Why doesn't that surprise many of us? Leaving out women at any level is to leave out half the population, and the global track record has shown over and over again that a country that leaves women behind is a country that leaves its own economy and development backward and has a poorer human rights record.

Once upon a time, I too used to complain about IT men being oblivious to women's IT requirements. Why do we have to wait for men to undo all their mistakes, improve on male-only products to make them women-friendly, or solve all our IT problems? Now I just wonder why women IT specialists cannot pitch in to resolve these matters themselves.