Social Implications of Electronic Commerce

Sumanjeet

Department of Commerce, Ramjas College, University of Delhi, Delhi 110 007, India

ABSTRACT Rapid growth of Information and Communication technologies (ICTs) (especially Internet and e-commerce) has affected most parts of human society and its dominance over the other technology is clearly visible. There are various things that can be done by the use of the web to make a difference, whether it is donating money to charities via click through, educating people, reducing poverty, generating employment opportunities helping the local community, improving access to healthcare, signing the online petition or accessing the information. Further, e-commerce is also helpful in reducing the gender gap and leads to empowerment and participation of women in economic activities. With the rapidly expanding reach of internet and e-commerce technologies into most aspects of everyday life, it is imperative to understand the its social impact and the behaviour leading to this impact. The present paper, mainly aims at to study the social implications of electronic commerce (popularly known as e-commerce). To study the social implications of e-commerce and other IT enabled technologies in a systematic manner, few areas have been selected, especially those which are of prime social interest. The paper explores the potential role of e-commerce in promoting sustainable and equitable development in the Third World Countries. Possibilities of using e-commerce technology in a way that will benefit the society at large and vulnerable groups in particular are analyzed within the wider framework of actual needs and existing facilities of these communities.

INTRODUCTION

Basically, electronic commerce (popularly known as E-Commerce) is an economic phenomenon; it forms part of a broader process of social change, characterized by the globalization of markets, the shift towards an economy based on the knowledge[1] and the information, and the growing prominence of all forms of technology in everyday life. These major societal transformations are now under way and will probably continue far into the foreseeable future. As both a product and manifestation of such transformations, electronic commerce is being shaped by, and increasingly will help to shape, modern society as a whole. Social factors will thus have profound influence on its future development. They will also merit attention from a public policy standpoint, both to establish the social condi-tions that allow electronic commerce to reach its full economic potential and to ensure that its benefits are realized by the society as a whole. It is therefore vital to understand the social processes that will inevitably influence how electronic commerce evolves and how quickly it can grow, as well as the areas where, through externalities of various kinds it may profoundly affects society[2].

Address for communication:
Dr. Sumanjeet, *Assistant Professor*
Department of Commerce, Ramjas College,
University of Delhi, Delhi 110 007, India
E-mail: sumanjeetsingh@gmail.com

IMPACTS ON SOCIETY

There are several studies which have focused on social implications of e-commerce. While some studies have shown that e-commerce have positive impact on the social activities and thereby contribute in the process of social development. Patterson and Wilson (2000) revealed that as e-commerce improves the quality and flow of information and communication, there is a good reason to expect that the e-commerce will have positive impact on the society. Study of and Bargh and Aspden (1997) and McKenna and Katz (2000) identified that through its use for communication, the Internet and e-commerce technology could have positive social effects of individuals (Sproull 1991), groups (Kraut et al. 2000), communities (Hampton and Wellman 2000), and society at large (Dertouzos 1997; Singh A and Tanburn 2001 and Zhu and Kraemer 2002). Broad social access could increase people's social involvement, as the telephone did (Fischer 1992 and Wellman 1996). Rao (2007) stated that e-commerce helps eradicate rural poverty by networking the rural poor and ensuring their active participation in public affairs. Studies revealed that internet and e-commerce improves the service delivery of health (Wild 2001; Raul 2003), education (Spence 2003), agricultural extension and other public services (Nanada 2000; Phojola 2000; Bayes et al. 1999). Further, studies also revealed that e-commerce is helpful in generating more employment opportunities

(Suamnjeet 2007; Brynjolfsson and Hitt 1998; Castells 1996; ILO 2001).Thus, many studies revealed the positive impact of e-commerce in different segment of society; however, this impact vary from country to country (Saith 2001)

Initiatives beginning ICTs and Internet access to the poor people and communities have been active since early 1990s. The 1998/99 World Development Report entitled *'Knowledge for Development'* accelerated this process (World Bank 1998-99). Support often took the form of regional or global grant mechanism. Domestic organization cooperated with international donors (Spence 2003). Recently countries experienced a more systemic diffusion of ICTs, with national programmes in most countries aimed at introduction and roll-out of e-strategies, like e-government, e-learning, e-commerce and e-business, after financed by the international donor community.[3]

There are various things that can be done to use the web to make a difference, whether it is donating money to charities via click through, helping the local community or signing an online petition. The launch of a site from Amnesty International[4] that enables people to e-mail and SMS their support for the various cases is one such scheme. Today, the response rate for each appeal has been growing rapidly and Amnesty can now expect around 5000 people to respond within a couple of days, with people signing up to the urgent appeals at a rate of two minutes. By using the web in this was to target users, Amnesty International can now reach people that otherwise would never been able to get involved with the organization.

To study the social implications of electronic commerce and other IT enabled Technologies in a systematic manner, few areas have been selected, especially those, which are of prime social interest and where the impact of these technology can be seen widely. Among them some of the most important are:

Health: Information technology and electronic commerce health care applications can play an integral role in the promotion of virtuous cycle[5]. It can help realize cost saving while broadening the reach of the health care system (Industry Canada 1998). In addition Internet and other IT enabled technologies can assist the overall health system to become more cost effective through, structural and functional rationalization of the delivery system, and the wide implementation of ICT will result in improved availability and quality of health services (European Commission 1996). It can play a positive role in expanding services and service delivery options while creating cost-efficiencies in the administration and management of health services and therefore lead to greater economic prosperity. This is particularly true if access to these now and better services is extended to the most disadvantaged segments of the society, as they have the most to gain from improved health conditions.

Education and Human Resource Development: ICTs integration in primary, secondary and tertiary education is one major goal of ICT projects. One prominent project is the School Net initiative that aims to connect schools to Internet and to train teachers in the developing countries. They operate in partnership with the private sector, government, NGOs and the donor community. In South Africa for example, where SchoolNet is focusing on historically disadvantaged schools, almost 3000 schools are already involved in the initiative (Spence 2003).

ICTs also have deep impact on distance education, which is currently most relevant to poverty reduction. E-learning[6] enhances the access to education for the who have access to ICTs reducing several constraints that distance education has faced in the past: lack of interactivity, long development cycles, lack of flexibility of materials and insufficient support mechanisms for learners (UNESCO 1996). In tertiary education access to online journals and to other information through the world wide web (www) has revolutionized research possibilities in the countries with the limited resources.

Poverty Alleviation/Reduction: Information and communication technologies (ICTs) have an important role to play in reducing the poverty by improving the flows of information and communications. Much of the recent attention to the role of ICTs in development has focused on the new technologies, such as the Internet and mobile phones. Yet no full range of ICTs is relevant to the fight against the poverty (Chandra 2003). The potential impact of ICTs on the poverty can be seen at the micro level, intermediate and macro level. At the micro level, ICTs can be used by the poor directly to address their information needs, develop their own strategies and solutions for improving their lives, and articulate their interest in societal processes and institutions that affect them. At the intermediate level, ICTs can

help a range of intermediary institutions and agents work more effectively and be more responsive to the needs of the poor. Health workers can access the latest information; get assistance with diagnosis, and more effectively target intervention and resources with the help of ICTs. At the macro level, ICTs can help foster more efficient and transparent markets, more participatory process of the governance and new forms of economic and social innovations that benefits the poor.

Gender Equality: Since recent studies indicate that the Internet use by men and women may soon approach equality[7], gender is becoming less of an issue. There is clear evidence that the majority of poor are women and poverty reduction is nowadays highly correlated with the gender equality. Thus it is stressed to include the gender equality into ICT Policies, programmes, projects at all level. Experiences range from empowerment initiatives at local levels, to national and regional networks. However, implications of IT for women empowerment are not an easy task. Spence (2003) identified that women face specific barriers[8] to the use of ICTs. Therefore, it is important to target women in ICT projects specifically. On a community level experiences shows that radio favours women to men, because radio requires little skills to operate and broadcast (Gerster and Zimmermann 2003). 'Women for Change' is a Zambian NGO, committed to working with empowering remote rural communities, especially women. The essence of networking for the 'Women for Change' is to share resources and action strategies for women's empowerment. Networking allows 'Women for Change' to stay in touch with what is happening locally, regionally and internationally and use of information and resources so gathered in helping the rural Zambian women. To facilitate the networking a website and online content have been developed to disseminate the information.

Added to all this, e-commerce is also helping in reducing the gender gap. With the emergence of IT enabled service industries, more and more women are getting employment in these industries[9]. In these industries women have equal opportunities (even more in some cases[10]) to men. Thus it is quite logical to conclude the IT and e-commerce is helping in reducing the gender gap.

Employment Opportunities: Internet and e-commerce have long been recognized as having an important impact on work, workers, and the workplace. It can contribute to better employment opportunities in developing countries both through improved labour facilitation and direct employment. Studies revealed that E-Commerce activities, in general, will spur employment needs for workers involved in e-commerce systems and organizations and its website design. According to Worldcom study more than two third Americans have engaged in virtual work (Nancy 2003). Vera (2002) studied the impact of e-commerce on B2C e-commerce on Philippine Workers and revealed that e-commerce can generate almost 20 per cent additional jobs. Thus, e-commerce economy has huge potential to generate employment. More computers workers are needed to set up, maintain, and oversee the additional hardware and software systems that e-commerce require. Among the workers needed are computers and information system managers, computer system analysts, computer engineers, computer support specialists, database administrators, computer scientists and computer programmers (Kuhn 2000; Hecker 2001; Borenstein and Saloner 2001; Autor 2001). E-Commerce activities also require more artist and commercial artists, designers and writers and editors. Added to this, global information revolution, which is largely derived by internet technologies, is making it possible for many service related jobs to be outsourced to the developing countries and for new forms of work outside the traditional office and new opportunities for self employment and entrepreneurs.

Access to Information on Community Level: We are moving on from IT to ICT and from ICT to Information Society (IS), according to Richard Heeks. Electronic Commerce and ICTs abolish distance and alter the concept of community. Many of these changes are positive creating links with new people, maintaining closer ties with far-flung friends and family members[11], and creating new online communities with potentially global membership. The 'e-governance'[12] is a result of such development and has emerged because of the increasing interest of government and citizen around the world.

It involves new styles of leadership, new ways of debuting and deciding policy and investment, accessing education, listening to citizens and organizing and delivering information and services. Sumanjeet (2006) identified the following benefits of e-governance.

· Increase the accessibility of individual citizens to information and services that allows them to influence govt. operations.
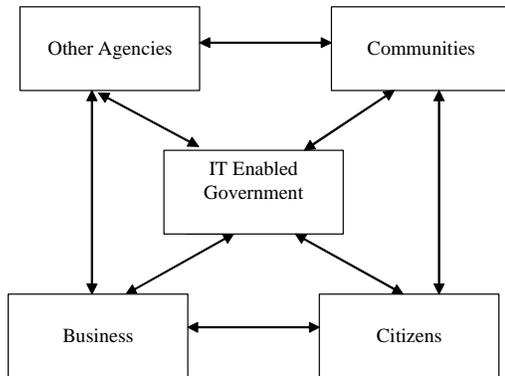
Fig. 1. E-governance for development

· Opportunities to earn a living by learning a new skill in the knowledge based economy.
· Producing same output at lower total cost.
· Opportunities to trade and banking online.
· Reduction in time and paperwork.
· Supports effective decentralized decision making by providing an efficient information flow.
· Various govt. departments find it very easy to perform their functions like collection of tax, water charges, professional taxes etc.
· Enhance access to information and communication across large distance.
· Deliver essential services to citizens.
· Improving agriculture productivity.
· Improves resource management.
· Enables marketisation by supplying information related to the market and enhances public services.
· Transparency in judicial and administrative work.
· All notifications and circulars can be put online, so that cases can be disposed faster.
· Helpful in confidence building among the citizens and the government machinery.
· Market expansion and organized job creation and its overall impact on the macro economy.
· Transition from cumbersome procedures for clearances to improved relations by providing quick approvals.
· It is an innovative way of administration. It facilitates easy monitoring and tracking of files. There is no place for red tapism.

Other Expected Implications: The Internet also has had a great influence in empowering consumers over the last few years, and there is a great opportunity for citizens to similarly empower themselves. Today, many communities have used the Internet to effect change in the things that matter to them. This is because the Internet allows communities of interest to communicate and share knowledge in ways never before possible, unrestricted by previous geographical boundaries.One consistent finding across many countries is that intensive users of information technology tend to be well educated and to have higher than average household incomes (IDC 1998).

Last but not the least, ICT can assist notional management that relies critically on good information and statistics notably social service delivery, especially health and education requires good information bases. Furthermore, ICTs are important for increasing knowledge on human and constitutional rights, laws and regulations. ICTs such as radio and the Internet have been used for monitoring government programmes, thus making the powerful more accountable and giving the poor a voice, e.g. through rural radios. Thus ICTs can be highly effective in enhancing transparency and accountability in the political system.

CONCLUDING REMARKS

At the social front, e-commerce and ICTs can definitely empower the poor, give them a voice and connect them to the global world. These technologies can also help in attaining a minimum level of education, health and nutrition. The ability to participate in democratic decision-making can also fall into this category. But it are difficult to predict the extent to which these technologies will transform the developing countries. On the basis of various studies, it is observed that, there are very high costs and relatively low benefits of the direct Internet and e-commerce technolgies to the poor or the other needy people. Access to radio and telephone services show a higher benefit cost ratio and lower the overall costs as the alternatives to and intermediaries for the Internet and e-commerce in poverty alleviation and other social upliftment programmes.

In a developing country such as India, it is of particular interest whether such benefits can reach to the poor and even help directly or indirectly reducing the deprivations asssociated with poverty. For example, better access to education, agricultural market, information or to government services may be relatively more valuable for the poor people who cannot afford to use the tradtional

mehtods or communications media, or to pay for the services of tradtional facilitaing intermediaries.

In short, development of e-commerce and IT has great singinficance not only in the economic growth, but also in human and social development. It boosts social as well economic infrastructure, generate revenue, provides employment and many more. But the development of these technologies would remain incomplete, unless the benefits of these technologies reaches to the common man.

No doubt, these technological developments not only open the barriers to the business community, economy as well as soicety, they have also created a thousand areas where crimes can proliferate. But, net cannot be held responsbile for the cybercrime. In fact, this is the first global communication that can be expolited in various ways. However, many studies clearly indicate that there is positive correlation between the growth of cyber-crime and growth of internet and e-commerce; but, in reality poor security system, lack of awareness, and poor legal system are most responsbile factors for the growth of crime. Therefore, there is strong need for dedicated, continuous, updated training of cyber law enforcement agencies. At the same time it is necessary to train a pool of expertise so that necessary skills are developed by all those who have to grapple with the problem of cyber-crime including the policy maker, framer, the judges, the lawyers and the administrative. All the more, change will come only with awarness.

In order for the Internet to become a tool for social progress, not a tool of oppression or another centralized broadcast medium or simply a waste of money, concerned citizens must under-stand the different ways in which the Internet can become embedded in larger social processes. Focus on developing people, not machinery. Learning how to use the Internet is primarily a matter of institutional arrangements, not technical skills.

ACKNOWLEDGMENT

NOTES

1. The knowledge-based economy is commonly thought of as an information technology economy, with an emphasis on software and hardware. Information technology is however, primarily an enabler, not an end in its own right (other than for data based products such as information). As such, it will have an impact on the entire economy.

2. Analysis of social dimensions of electronic commerce is hindered, however, both by the rapidity of change, which limits the collection of quantitative data on the growth and implications of new forms of electronic business, and by the difficulty of isolating electronic commerce from ICTs more generally. Research is also hampered by the pervasiveness of electronic commerce in the economy and the consequently diffuse nature of its linkage to broader social, institutional and cultural factors. Within these limitations, this section of study reviews literature and evidence from a variety of disciplines to point to areas where a significant relationship appears to exist between social and economic considerations and which consequently may merit attention in terms of public policy.

3. Examples are the Botswana National e-learning strategy, co-funded by the European Union, Namibia's e-government strategy, Egypt's e-government portal (www.egypt.gov-eg/english/default.asp), or the large scale ICT programme for Education in Ethiopia, co-funded by the World Bank (www.uneco.org/aisi/nici/ethiopia/ethiopia.htm).

4. This is one of the world oldest and popular Human Right Organization.

5. It is well established that a population's overall health is closely related to its economic prosperity. Improved health conditions and access to health information contribute significantly to economic growth, because healthier workers are more productive. Government policies that promote health education help people lead healthier lives by increasing their access to and are of relevant information. When combined with polices to ensure effective and accessible health services and those generate income growth, a virtuous cycle is created in which economic growth and improvements in health reinforce each other {World Bank, 1993), World Development Report 1993: Investing in Health, Oxford University Press, New York}.

6. E-learning is the use of network technology to design, deliver, select, administer and extend learning. It is an Internet enabled learning process whose components include content delivered in multiple formats, management of the learning experience and a community of networked learners, content developers and experts. E-learning as a universe comprising three basic elements – content, services and technology. [Deva, Vasu (2003), E-Learning: Search for Excellence, New Delhi: Commonwealth Publishers.]

7. Commerce Net/Neilson Study as cited in "Starting Increase in Internet Shopping", Business Wire, December 31, 1997.

8. Lower level of literacy and education; domestic and reproductive responsibility; restricted access to training; cultural attitudes and Practices; less proficiency in English; lower level of financial resources and lower access level to ICTs at work, public access is located in the areas where women do not feel comfortable. And higher density of women in the rural areas.

9. In some industries it is quite natural and logical to place a woman than men. For example in call-centers women are preferred because of their soft voice and lower pitch. And in these industries women can work very easily because there is no physical work.

10. Like call-centers, medical transcription and other voice-based services and even in some industries women are intentionally employed to attract more and more customers. (This statement is based on the personal experience of the researcher. Working with India's biggest stock broking company Indiabulls the research found this).

11. For example, e-mail brings family closer. A growing number of parents with children away at college are surprised at the frequency that their children are using e-mail to stay in touch. Parents also find their children are opening up to them via e-mail far more readily than if they were talking to them over the telephone, or even face to face. Convenience is cited as a main reason for using e-mail, as well as cost savings and 24 hours contact availability without disrupting scheduler.

12. E-Governance or Electronic Governance is an attempt of government to harness information technology to improve the efficiency or effectiveness of the executing function of government including the delivery of public services. In a very broad sense it can be defined as *"the application of the electronic means in the interaction between government and citizen (G2C) and government and business (G2B), as well in the internal government operation (G2G) to simplify and improve the democratic government, and business aspects of e-governance.*

REFERENCES

Autor David 2001. Wiring the Labour Market. *Journal of Economic Perspective*, 15(1): 25-40.

Bayes A, Braun J, Akhter R YEAR. Villages Pay Phones and Poverty Reduction: Insights from a Grameen Bank Initiative in Bangladesh *Discussion Paper,* No. 8, University of Bon, June.

Borenstein Severin, Saloner Gath 2001. Economics of Electronic Commerce. *Journal of Economic Perspective,* 15(1): 3-12.

Brynjolfsson E, Hitt LM 1998. Information Technology and Organizational Design: Evidence from Micro Data. *Working Paper Series*. Cambridge, MA: Sloan School of Management.

Castells M 1996. *The Rise of the Network Society*. Malden, MA: Blackwell.

Chandra Rakesh 2003. *Information Technology: A Revolutionary Change,* New Delhi: Kalpaz Publication.

Commerce Net/Neilson Study 10\997. As cited in Starting Increase in Internet Shopping, *Business Wire*, December 31, 1997.

Dertouzos ML 1997. *What Will Be: How the New World of Information Will Change Our Lives.* San Francisco: HarperEdge.

Deva Vasu 2003. *E-Learning: Search for Excellence,* New Delhi: Commonwealth Publishers.

European Commission. 1996. *The Market for Electronic Information Service in the European Economic Area.,* European Report on the Member State's Study (MSSTUDY), October.

Fischer CS 1992. *America Calling*. Berkeley,CA: University of California Press.

Gerster R, Zimermann S 2003. Information and Communication Technologies (ICTs) and Poverty Reduction in Sub Saharan Africa: A Learning Study, accessed on *http://www.gersterconsulting.ch/doecs/synthesis_report.pdf.*

Hampton K, Wellman B 2000. Net Effects: Social Support, Social Capital, and Internet Use in the Wired Subrub and Beyond. *Paper Presented at the Annual Meetings of the American Sociological Association (ASA) in Washington, D.C.*, August 12-16, 2000.

Hecker Daniel 2001. Employment Impact of Electronic Business *Monthly Labour Review,* May, pp. 3-16.

IDC 1998. *Internet Commerce Defined: Current State and Future*. Outlook; Presentation Material prepared for the Internet Commerce Breakfast, June.

ILO 2001, *World Development Report: Life at Work in the Information Economy,* Geneva: International Labour Organisation.

Industry Canada 1998, *Sector Competitiveness Framework Series: Tele-Health Industry*. Ottawa: Sector Competitiveness Framework Services.

Katz JE, Aspen P 1997. A Nation of Strangers. *Communication of ACM*, 40(12): 81-92.

Kraut R, Mukhopadhyay T, Szczypula J, Kiesler S, Scherlibs S 2000. Information and Communication: Alternative Uses of the Internet in Households. *Information Systems Research*, 10(2): 287-96.

Kuhn Peter 2000. Policies for an Internet Labour Market. *Opinion Poltiques*, October, pp. 42-47.

MaKenna KYA, Bargh JA 2000. Plan 9 From Cyberspace: The Implications of the Internet for Personality and Social Life. *Personality and Social Psychology Review*, 4(1): 57-68.

Nanada TK 2000. Potholed Roads of a Village Now Lead to Information Superhighway. From http*://www.indialine.com/net.comumns/column30.html*

Nancy Mansfield 2003. The Information Revolution and Its Impact on Employment Relationship: An Analysis of the Cyberspace Workplace. *American Business Law Journal, accessed on http://www.allbusiness.com/technology/internet-technology/618188-3.html*

Patterson R, Wilson EJ 2000. New IT and Social Inequality: Resting the Research and Policy Agenda. *The Information Society*, 16(1): 123-135.

Phojola M 2000. Information Technology and Economic Growth: A Cross Country Analysis. *Mimeo,* Helsinki: WIDER-UNU.

Rao Sambasiva 2007. Bridging the Telecom Divide. *Economic and Political Weekly,* 42 (3): 209-211.

Raul Zambrano 2003. Implementing E-Strategies: A Snapshot of Current Situation. *Paper Presented at*

Conference on E-Strategies Development in Mozambique, September 1-4, 2003.

Saith Ashwani 2001 Information Communication Technologies and Poverty Alleviation: Hope or Hype *Paper Presented in a Panel Discussion on ICT and Development at International Labour Organization*, Geneva, Aprial 23, 2001.

Singh A, Tanburn J 2001. ICTs and Enterprises in Developing Countries: Hype or Opportunity? *Seed Working Paper, No. 17*, Geneva: International Labour Organization.

Spence R 2003. *Information & Communication Technologies (ICTs) for Poverty Reduction: When, Where and How?,* accessed on http://www.idrc.ca/uploads/user/S/107402457518469203RS_ICT_Pov_18July.pdf.

Sproull L, Kiesler S 1991. *Connections: New Ways of Working in the Networked Organizations,* Cambridge: MIT Press.

Sumanjeet 2006. E-Governance: The Overview in the Indian Context. *Indian Journal of Political Science,* LXII (4): 857-866.

Sumanjeet 2007. *E-Commerce: Business Applications, Strategies, Challenges and Opportunities in India,* Ph.D. Thesis, Submitted to Department of Commerce, M.D.University, Rohtak.

UNESCO 1996. Information and Communication Technologies in Development: A UNESCO Perspective, accessed on *http://www.unesco.org/webworld/telematics/uncstd.htm*

Vera R 2002. The Employment Impact of Business to Customer E-Commerce on Philippine Worker. *APEC Study, accessed on http://www.eldis.org/static/DOC13810.htm*

Wellan B 1996. Are Personal Communities Local? A Dumptarian Reconsideration. *Social Networks,* 18(3): 347-356.

Wild Kate 2001. A Global Overview of E-Strategies: Making the Link with Poverty and the Millennium Development Goals *Discussion Paper for 5th Session of U.N. ICT Task Force in Geneva*, June 2001.

World Bank 1998-99. World Development Report 1998-99, accessed on *http://www. Worldbank.org/wdr/wdr98/contents.htm.*

World Bank 1993. *World Development Report 1993: Investing in Health,* New York: Oxford University Press

Zhu K, Kraemer KL 2002 E-Commerce Metrics for Net-Enhanced Organizations: Assessing the Value of E-Commerce to Firm Performance in the Manufacturing Sector. *Information Systems Research*, 13(3): 275-296.