

E-Commerce and Digital Divide: Impact on Consumers¹

Prof. T.P. Rama Rao
Center for Electronic Governance
Indian Institute of Management, Ahmedabad-380015
ramarao@iimahd.ernet.in

Abstract

This paper discusses the concerns on the digital divide and illustrates, through case studies, how the recent developments in the Information and Communication Technology can be gainfully employed in social development and in bridging the digital divide. It also addresses the phenomenon of E-Commerce and identifies the efforts made by different industry groups, international organizations and ministries in addressing the concerns related to E-Commerce and consumer protection.

I. Introduction

Rapid developments in Information and Communication Technology (ICT) have fueled the new paradigm of Electronic Commerce (E-Commerce). Enterprises all over the globe have either created or are in the process of creating the E-Commerce front-ends to their traditional businesses. Several new products and services are being innovated and marketed through Internet thus creating global business opportunity to the tune of billions of dollars. Since the business transactions as well as the delivery of goods are handled through electronic media, several changes in the business regulations become necessary for the smooth conduct of business and to offer consumer protection. Developing countries are likely to lag behind and loose out on the benefits of ICT revolution and e-commerce opportunities if the policies to provide access to the technologies, education, skill development, e-commerce regulation and consumer protection are not introduced in time.

II. ICT and Digital Divide: Impact on Employment

The recent ILO World Employment Report 2001[1] observes that given its different speed of diffusion in wealthy and poor countries, the ICT revolution is resulting in a widening global “digital divide”. The report says that unless this is addressed urgently, the employment aspirations and productivity potential of millions of workers in scores of countries cannot be realized. Access to the technologies and ensuring that workers possess the education and skills to use them are the fundamental policies that developing countries need to consider, the report notes.

The report observes that “Despite phenomenal growth in ICT in the industrialized world and its increasing penetration into developing countries, vast swathes of the globe remain ‘technologically disconnected’ from the benefits of electronic marvels revolutionizing life, work and communications in the digital era”. The reports finds that 90 percent of all Internet users are

¹ Presented at the Regional Meeting for the Asia-Pacific: New Dimensions of Consumer Protection in the Era of Globalisation, Goa, India, 10-11 September 2001

in industrialized countries, with US and Canada alone accounting for 57 percent of the total. In contrast, Internet users in Africa and Middle East account for only 1 percent of the global Internet users. The report says that, those countries and regions that fail to make the technological leap risk not only missing out on the large and growing trade in information and communication technology products, but will be unable to profit from the economic efficiency and productivity gains that derive from these industries.

It may be noted that the East Asian economies of China, Malaysia, Thailand, Philippines and others, for example have been able to make rapid progress in high-tech areas and were able to capture a significant share of the world market for semiconductors and other data processing equipment. India has seen its software sector grow by 50 percent throughout the 1990s, creating not just exports but thousands of domestic jobs and a technological talent pool that is drawing international attention from industrialized countries and large multinationals. Costa Rica has drawn some of the world's largest ICT companies seeking to employ its relatively educated work force in a development effort that has seen jobs created and exports increase and now spawning a domestic software industry. Even where export opportunities in the ICT sector prove illusive, gains from access to the technology it generates can promote jobs and entrepreneurship in such industries as data processing and call centers. In Senegal, liberalization of telecommunications regulations has spawned a host of "telecenters" providing access to telecommunications and creating thousands of jobs. And in South Africa, the growth of such telecenters has provided unprecedented access to public services as well as vital information on health care, education and other social services. Public and/or private assistance to the needs of poor persons is one place to begin.

With reference to trade policies, the ILO report suggests that governments should encourage the growth of the domestic ICT sector while making imported inputs available at right prices. It recommends that international trade regime be sensitive to policies that encourage the growth of the ICT sector in the developing world.

As regards to migration of highly skilled workers in the digital economy, the ILO report notes that countries receiving digital migrants should not neglect the training of their domestic workforce. At the same time, countries of origin should develop policies that encourage retaining or repatriating their highly skilled workers.

III. E-Commerce and its Impact on Consumers: Issues for Developing Countries

E-Commerce involves conducting business activities using electronic data transmission involving computers, telecommunications networks, and streamlined work processes. Business-to-business (B2B) e-commerce is a form of e-commerce in which participants are organizations. The business-to-consumer (B2C) e-commerce is a form of e-commerce in which customers deal directly with organization, avoiding any intermediaries. Worldwide, businesses and individuals use e-commerce to reduce transaction costs, speed the flow of goods and information, improve the level of customer service, and enable close coordination of activities among manufacturers, suppliers, and customers. E-commerce also enables consumers and companies to gain access to worldwide markets.

The citizens in developing countries face a number of challenges in harnessing the benefits in the area of e-commerce. If e-commerce is to succeed in raising incomes and trade flows in the developing world, a range of technical, legal, and international governance considerations need to be addressed. Thus, developing countries need to focus their efforts in two areas beyond access: capacity building, and international governance.

a. Capacity Building

In addition to communications infrastructure, successful e-commerce relies on a variety of other public sector inputs. Legal systems must adapt to a new range of contract and liability issues, educational systems must produce a technically competent work force, and banks must be able to accept electronic payments. These factors are critical components for successful e-commerce development.

E-commerce requires a supportive legal framework in the banking and industrial sectors, as well as legal and juridical changes in response to challenges that have emerged in tandem with the new technologies. These include standards and protection of digital signatures, the liability of value-added networks, regulation of certification authority, protection of intellectual property, and computer crime and data protection. The complexity of these issues is a major obstacle for countries that lack the technical capacity to design and implement needed reforms. In response, the United Nations Commission on International Trade Law (UNCITRAL) has developed a standardized e-commerce “model law” designed to be easily integrated into most country’s legal systems. The law is based on developing equivalencies for paper-based concepts such as ‘writing,’ ‘signature,’ and ‘original.’ In addition, the model law provides specific guidance for the design of regulations involving legal coverage of electronic communication and the transmission of goods and services via the Internet. Regional institutions have also sought to assist countries in the design and implementation of legal and regulatory frameworks for governing e-commerce.

A second major capacity issue involves human resource development and specialized technical skills. E-commerce is computer and network intensive, requiring skilled programmers and applications-development personnel. Furthermore, as the majority of Internet content and programming languages are English-based, intensive language training is necessary. In addition, for B2C e-commerce and government services online to succeed, consumers also require both basic literacy and computer skills.

Finally, the financial systems in many countries require significant upgrading and regulatory changes in order to meet the demands of e-commerce. Business and consumer trust in electronic forms of payment need to be enhanced through effective supervision and technical capacity. In particular, national banking systems will need to upgrade their infrastructure to accommodate electronic payments and settlements. In addition, due to cultural constraints, inadequate financial infrastructure, and low incomes, most countries lack a critical mass of credit-card equipped consumers who can buy goods over the Internet. As electronic forms of payment are critical for B2C e-commerce, improvements in either credit-card penetration or other forms of on-line cash will need to be developed.

b. International Coordination

The cross-border effects of e-commerce require international coordination in order to avoid unilateral actions that could stifle trade and lead to uncompetitive practices. In this regard, the developed countries have already driven the negotiating agenda, and the developing countries are in the process of raising their concerns in the WTO and UNCTAD. Part of the problem centers on the speed with which e-commerce has turned into a major trade issue. Many developing countries are yet to be equipped to handle the technical components and trade implications of continued e-commerce growth.

First, the digital transmission of goods and services will render traditional customs procedures and domestic taxation systems archaic and/or obsolete. Through work in the OECD, the United States and Europe have adopted the position that cross border e-commerce flows should be entirely market-driven and have proposed a moratorium on e-commerce taxes. Ignoring for the moment the issue of how to collect taxes on digital goods and services (i.e. whether authorities are even aware that the transaction is taking place), countries must consider the revenue implications of tax-free transactions if e-commerce reaches the order of magnitude that many analysts predict.

Second, e-commerce makes it increasingly difficult for countries to distinguish between goods and services. WTO rules approach trade in goods and services differently; Goods are generally subject to tariffs while trade in services is limited by restrictions on national treatment and/or quantitative controls regarding market-access. As a result, several important WTO rules, particularly the General Agreement on Trade in Services, which emerged from the Uruguay Round, may already be in need of reconsideration and negotiation.

Third, the digitization of information, combined with ability to make it available to a mass audience at small marginal cost, has raised concerns that global trade rules do not protect information producer's rights to own and profit from their work. As a result, many countries are seeking to discuss the impact of electronic commerce on the areas of copyright and related rights, trademarks, patents, domain names and unfair competition within the framework of the WTO's Trade in Intellectual Property (TRIPs) agreement. Differences have emerged, however, over balancing the needs of information and content providers with ensuring equal access to new technologies and methods. Stronger rules on TRIPs could potentially reduce developing country access to new tools and technologies.

Developing countries will have to be prepared to respond to these threats through greater participation in international fora abroad and reform and technical training at home. Further, as has been mentioned, it is likely that the networking revolution will create losers as well as winners, this greatly increases the importance of safety nets for individual workers and programs supporting structural change and re-engineering at the company and sector level.

IV. ICT Applications to Bridge Digital Divide: Indian Examples

In the recent past we have seen how innovative applications of Information and Communication Technology (ICT) have made difference to the delivery of services or products to the rural areas in India [2]. These applications illustrate how organizations have achieved significant benefits through ICT in the areas of health care, farming, non-formal and formal education, and citizen services. Particularly, the 'Same Language Sub-titling' project [3] and the Honey-Bee knowledge network project [4] are excellent examples of how ICT is used in addressing literacy and in empowering citizens with information and knowledge in developing countries.

The projects like Gyanadoot at Dhar (MP), Wired Village at Warna (Maharashtra), MS Swaminathan foundation's project at Veerampattinam (Pondichery), Collectorate of Thiruvavur (Tamil Nadu) reported in [5] have demonstrated how these innovative projects executed by the committed agencies have facilitated in bridging the digital divide. In fact, India has just three phone lines per 100 people and has around five PCs per 1,000 people. Rural infrastructure is grossly inadequate and power outages are long and frequent in rural areas. Still, ICT has gone grassroots and begun transforming lives of rural folk like Govardhan (Dhar) and Balaram (Pondichery) [5]. They are participants in a few committed efforts at wiring up villages, disseminating information, simplifying procedures and eliminating middlemen. These kind of

projects demonstrate that rural consumers can and will benefit from connectivity. The rural community will enjoy new access to agricultural inputs, new markets for their products and in a few years from now, will find new educational and employment opportunities through these human-mediated Internet access projects.

Center for Electronic Governance at Indian Institute of Management, Ahmedabad (CEG-IIMA), designs and develops proof-of-concept products, which demonstrate the use of ICT in improving delivery of services and empowering citizens with information and knowledge. Dairy Information Services Kiosk (DISK) to be used at milk collection centers and Dairy Portal (DP) to be used at Dairy Unions are examples of recent products from the CEG-IIMA. These products demonstrated how the services such as veterinary, animal husbandry, cattle feed etc., can be effectively organized and improved for the benefit of dairy farmers in the cooperative sector [6][7]. The CEG-IIMA is in the process of launching Citizen Services Portal and citizen services kiosks to be used by citizens in the rural areas through PCs at cooperative societies and STD booths. These products are designed to provide information to rural masses about the schemes available to them through various government departments and to facilitate submission of applications for the same. In addition, the portal and kiosks also offer educational content on several related topics for the benefit of citizens.

These examples demonstrate that the issue of digital divide is being addressed systematically and India is geared up to bridge the gap with the initiatives by several government, NGO, and educational institutions. Since the technological developments are taking place rapidly, such efforts must continue at a wider scale in developing countries, if not accelerated, to ensure that the citizens benefit from these developments in the ICT.

V. E-Commerce and Consumer Protection

Several industry groups, ministries and trade associations have addressed the issue of consumer protection in the context of E-Commerce. They have proposed detailed guidelines for consumer protection. Some of these are summarized in the sections below:

a. The Electronic Commerce and Consumer Protection Group (“E-Commerce Group”)

The Electronic Commerce and Consumer Protection Group (“E-Commerce Group”) is composed of leading companies in the Internet, online, and electronic commerce industries (America Online, AT&T, Dell, IBM, Microsoft, Network Solutions and Time Warner). This E-Commerce Group recognized the importance of consumer protection in the Internet age and has addressed these issues for the purpose of creating industry best practices and a predictable legal framework for consumer protection in global electronic transactions.

The Group has developed guidelines [8] for consumer protection to help establish an effective global framework that reduces the need for compliance with a multitude of differing laws. As vendors follow these Guidelines, consumers are expected to benefit from consistent consumer protection practices. Through this effort, the Group hopes to minimize emphasis on the choice of law of the consumer or the merchant by following the Guidelines and adhering to a dispute resolution mechanism to resolve disputes. These Guidelines are presented in Appendix-I.

The E-Commerce Group has extensively discussed these issues with government officials, other companies, and consumers in seeking progress in these important areas. The work of the OECD has been of particular help in describing and sorting out these issues. Consumer protection, legal

predictability, and continued growth of global electronic commerce are all addressed in the Guidelines for Merchant-to-Consumer Transactions (“Guidelines”).

b. The Okinawa Charter on Global Information Society (GIS) by G8

While recognizing ICT as one of the most potent forces in shaping the twenty-first century, G8 has issued a charter on Global Information Society (GIS). This charter addressed, at length, the issues such as: seizing digital opportunities, bridging digital divide, and promoting global participation. To achieve its objectives, the charter has set priorities on fostering policy, regulatory and network readiness; improving connectivity, increasing access and lowering cost; building human capacity and encouraging participation in global e-commerce networks [9]. In the Okinawa Charter, the G8 reaffirmed its commitment to the efforts underway to formulate and implement a coherent strategy to bridge the digital divide.

c. Ministry of International Trade and Industry, Japan (MITI) Proposal:

The MITI’s proposal for WTO E-Commerce Initiative [10] is based on the belief that E-Commerce can have positive effects for all economies contributing to the mutually supportive goals of sustainable economic growth, enhancing public welfare, and fostering social cohesion. It can also be instrumental in helping developing economies participate in the multilateral trading system. Benefits accruing to developing economies from the rapid growth of E-Commerce will help them meet more effectively their vital development goals, such as poverty reduction, health and education. It suggests that WTO members should recognize the need to build up the capacity in developing economies to use effectively the opportunities presented by E-commerce which can help close the digital divide.

Conclusion

Rapid developments in ICT have opened up new global business opportunities in the form of E-Commerce, which may be exploited by the developing countries as well. It is feared that these developments may widen the digital divide and under developed countries may lag behind and lose in the race. Examples illustrated in the paper demonstrate that India is well prepared to use ICT for social development and in bridging the digital divide.

Several international agencies, ministries and business groups have addressed the emerging global business opportunities of E-Commerce and developed proposals for discussions in various international fora. It is important for the consumer organizations in the developing country to reflect on these proposals and evolve mechanisms that are mutually beneficial. However, since the speed of development is alarming, we need to strengthen our human resources, build infrastructure and find more innovative ways of utilizing ICT for the overall development of the economy.

Appendix –I

Electronic Commerce and Consumer Protection Group (America Online, AT&T, Dell, IBM, Microsoft, Network Solutions and Time Warner)

GUIDELINES FOR MERCHANT-TO-CONSUMER TRANSACTIONS

I. Scope and Definitions

These guidelines apply to Merchant-to-Consumer Transactions conducted online including through the Internet.

- A. **Merchant:** The term "Merchant" means any person who offers a Consumer good or service and accepts orders directly from Consumers.
- B. **Consumer:** The term "Consumer" means a customer, including a licensee, subscriber, or buyer, of any good or service acting primarily in a personal, family, or household capacity - other than for purposes of resale.
- C. **Transaction:** The term "Transaction" refers to any agreement for provision of a good or service between a Merchant and Consumer.

II. Accuracy and Accessibility of Information

All information required to be disclosed by these Guidelines should be clear, accurate, and easily accessible online. The information should either be posted on or accessible through a hyperlink that sufficiently describes the information being linked to from the Merchants homepage or entry point of the online site and at a place where the transaction is offered.

III. Merchant Contact Information

Consumers should have a prompt, easy, and effective means of contacting the Merchant. The Merchant should disclose its legal name; the name under which it conducts business; the principal physical address or an address of an agent for service of process for the Merchant; mail, and e-mail or telephone contact information; and a point of contact within the Merchant organization that is responsible for inquiries from Consumers.

IV. Marketing Practices

Merchants should not make any representation or material omission or engage in any practice that is deceptive, misleading or fraudulent. If a representation about a good or service or the Merchant is likely to be relied on by Consumers engaging in Transactions, Merchants should take reasonable steps to ensure that such information is current, accurate, and not deceptive or misleading to Consumers and that the truthfulness of objective claims are substantiated.

V. Information About the Goods or Services

Merchants should clearly disclose the basic features of the good or service that they offer using terms that Consumers can understand.

VI. Information About the Transaction

- A. Terms and Conditions Merchants should make available to Consumers the terms and conditions applicable to the Transaction.
- B. Opportunity to Review the Transaction Merchants should provide Consumers an opportunity to review and not proceed with the Transaction prior to its becoming a binding obligation and disclose to Consumers at what point the Transaction will be final.
- C. Language Material information about the Transaction should be provided in the same language in which the good or service is offered.
- D. Record of the Transaction Merchants should make it possible for Consumers to access and maintain an adequate record of information about their Transactions.
- E. Costs Merchants should disclose the entire price, type of currency, and expected costs of the goods and services to be collected by the Merchant. A general description of routine costs and fees not collected by the Merchant that will likely be incurred by the Consumer also should be provided.
- F. Shipping and Payment Merchants should disclose to Consumers when the Merchant will be able to ship the goods or provide services, and the time when a Consumer will be charged for a Transaction. A consumer should not be charged for a product or service unless shipment of such product or service is expected within a reasonable period of time.

VII. Cancellation/Return/Refund Policies

Merchants should provide information to Consumers about their cancellation, return, and refund policies, including: the length of time after entering into a binding obligation which an available cancellation, return, or refund may be made; the process that should be followed; and any costs that may be incurred. If there is no cancellation, return, or refund right, this should be stated prior to completion of the Transaction.

VIII. Packaging

Tangible goods should be shipped in packaging that can reasonably be expected to protect the goods in transit.

IX. Security

Merchants should make reasonable efforts to ensure the security of a Consumer's Transaction information. Security protections should be consistent with current industry standards. For data containing credit card information being transferred from the Consumer to the Merchant, Merchants should take steps such as the use of password protection, encryption, or similar technologies to protect information about the Transaction.

X. Customer Service and/or Support

Merchants should disclose to Consumers basic information regarding customer service and/or support for goods or services purchased online from the Merchant. If no customer service and/or support is available from the Merchant, this should be stated.

XI. Warranty

Merchants should disclose to Consumers applicable warranties or limited warranties that they offer regarding the products or services sold or made available to Consumers. Such information should include the scope, duration, and means of exercising rights made available in the warranty or limited warranty.

XII. Privacy

Merchants should adopt privacy policies that are consistent with existing industry standards and existing legal requirements. At a minimum, such policies would provide for notice to a consumer as to what type of information is to be collected and how it will be disseminated. Merchants also should provide Consumers with choices as to the dissemination of information to third parties for marketing purposes. Merchants should provide Consumers with reasonable access to the records of the individual Consumer's Transactions with the Merchant upon request.

XIII. Self-Regulatory Programs

Merchants should disclose and provide contact information for any self-regulatory programs in which they participate and applicable dispute resolution processes.

XIV. Dispute Resolution

Merchants should provide Consumers with fair, timely, and affordable means to settle disputes and obtain redress.

A. Internal Mechanisms Merchants should establish internal mechanisms to address Consumer complaints. Merchants should encourage Consumers to take advantage of such internal mechanisms as appropriate.

B. Third-Party Dispute Resolution Merchants are encouraged to participate in reputable, independent third-party dispute resolution programs to assist Consumers in addressing complaints arising from Transactions. When available, third-party dispute resolution programs should encourage Consumers to seek redress through a Merchant's internal complaint mechanism prior to being granted access to third-party dispute resolution programs. Similarly, the Consumer and the Merchant may agree that the Consumer's claims will be submitted to third-party dispute resolution.

XV. Effective Enforcement

Merchants should participate in effective self-regulatory enforcement programs to provide validation that Merchants adhere to these or equivalent guidelines. Validation of adherence can be demonstrated in a number of ways, including the use of a seal or other recognizable symbol. Organizations that administer seal programs must be easily available to consumers, competitors, and others to accept complaints and to act on them. Such seal organizations shall deny the continued use of their seals by any organization that is not in material compliance with the Guidelines. Companies that are signatories to the Guidelines should encourage companies with which they conduct business to adhere to the Guidelines and participate in seal programs.

References

1. ILO's World Employment Report 2001, "Despite Improved Employment Outlook, Digital Divide Looms Large", ILO News, 28th Feb 2001, Geneva.
2. Subhash Bhatnagar and Robert Schware, "Information and Communication Technology in Development: Cases from India", Sage Publications, 2000
3. Brij Kothari and Joe Takeda, "Same Language Subtitling for Literacy: Small Change for Colossal Gains", in Subhash Bhatnagar and Robert Schware (Eds), "Information and Communication Technology in Development: Cases from India", Sage Publications, 2000
4. Anil Gupta, Brij Kothari and Kirit Patel, "Knowledge Network for Recognizing, respecting and Rewarding Grassroots Innovation", in Subhash Bhatnagar and Robert Schware (Eds), "Information and Communication Technology in Development: Cases from India", Sage Publications, 2000
5. Sothik Biswas, "Digital Empowerment: Seeds of E-Volution", Outlook India.com, April 9, 2001
6. Rama Rao T.P, "Dairy Information Services Kiosk and Dairy Portal", Proceedings of Workshop on Dairy Information Services Kiosk and Dairy Portal, Center of Electronics Governance, Indian Institute of Management, Ahmedabad, May 8, 2001.
7. Bhatnagar S.C., "Empowering Dairy Farmers: A Portal and dairy Information services Kiosk", <http://www1.worldbank.org/publicsector/egov/diskcs.htm>
8. The Electronic Commerce and Consumer Protection Group ("E-Commerce Group"), <http://www.ecommercegroup.org/guidelines.htm>
9. Okinawa Charter on Global Information Society, http://europa.eu.int/comm/external_relations/g7_g8/intro/global_info_society.htm
10. MITI's Proposal for WTO E-Commerce Initiative, "Towards eQuality: Global E-Commerce Presents Digital Opportunity to Close the Divide Between Developed and Developing Countries (2nd Draft)", <http://www.meti.go.jp>