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This paper tries to delineate the interests and preferences of major actors in Internet trade, from the way in which Internet trade has evolved, and, makes suggestions about where India's interests lie. The US being the dominant producer of goods traded over the Internet, seeks a liberal Internet regime on taxation and content. The EU, on the other hand, is scared of being flooded with US imports resulting from Internet trade. It prefers high taxes and restricts US access to data relating to EU consumers. Intellectual property over the net follows technological capacities for regulation, rather than explicit state interests.

I argue that given India's export potential and sustainable quota like import restrictions arising from foreign exchange restrictions, India's interests lie more with the US than with Europe. Where there is comparative advantage, India must be liberal. It must use its ability to be liberal to extract concessions in other areas, where it needs others to open up other's trade to its goods and services.

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I make the argument in three sections. The first section discusses the business environment within which the Internet has fostered productivity and growth. The Internet facilitates business-to-business commerce (B2B) by better management of information and easier buying and selling. Despite the dot com disappointment in the consumer market, established brands are going online, traditional retailers are being challenged in many areas, and, customized products have emerged on an unprecedented scale. Challenges to the net remain in the form of securing online transactions and assuring convenient delivery of products that are ordered online. I try to point out the interests of India's service sector in the context of these business opportunities.

The second section discusses the politics of Internet trade and brings out the interests of important actors. It looks at taxation, privacy and intellectual property. I restrict my observations to these issues because these are the most explicitly trade related issues, where India will need to take a position within the multilateral trading system. Finally, an argument is made about the interests and preferences of the US, EU, Japan, Australia, India and South Africa. In conclusion, I situate India's interests in relation to the debates taking place at the multilateral level.

THE COMMERCIAL CONTEXT OF INTERNET TRADE

Commercial interests are driving the international politics of Internet rules. In this section, I provide a brief overview of the impact of the Internet on business practices. First, I discuss the net's impact on the way in which companies are doing business (B2B). Second, I highlight some of the challenges facing firms who do business on the net. This will provide the commercial context within which political deliberations on the rules of internet trade are being framed at the international level.

Business Opportunities through the Net

The management of information through the Internet has reduced costs by facilitating project management, innovation and purchases. It is transforming the way in which employment for skilled labor is occurring on a global scale. This has the potential of transforming the firm due to increased outsourcing, better customer accountability, and, a heightened importance of strategic alliances involving horizontal rather than vertical integration.

Cross-border service trade involving communications services, computer and information services, and other business services conducted over telecommunications networks was worth \$375 billion in 1999. This is equal to 30% of world service trade and about 5% of world trade. Less significant though fast catching up, the trade in digitizable media products (film, printed material, video games and recorded information) was about \$50 billion (< 1% of world trade) in 1998.¹ According to one study involving 5 countries, it is estimated that business to business (B2B) commerce has reduced costs by 33%, improved resource allocation by 66%, and, will increase GDP growth at the rate of 0.25% per annum in the next ten years.² The figures for the US are even more spectacular.³

According to the BCG—NASSCOM study on e-commerce Opportunities for India Incorporated (2001), e-solutions, which is expected to be 69% of IT services spending by businesses, is a

¹ Aaditya Mattoo, Rosa Perez-Estevé and Ludger Schuknecht, "Electronic Commerce, Trade and Tariff Revenue: A Quantitative Assessment," The World Economy 24, 7 (July 2001): 956, 962.

² Catherine L. Mann, Sue E. Eckert and Sarah Cleeland Knight, Global Electronic Commerce: A Policy Primer (Washington, DC: Institute for International Economics, 2000): 22–23. See also, Frances Cairncross, The Death of Distance (Boston, Mass.: Harvard Business School Press, 2001): ch. 6.

³ Dale W. Jorgenson, "Information Technology and the US Economy," American Economic Review 91, 1 (March 2001): 1–32.

growth opportunity for Indian software service providers. This \$180 billion business in 2000 is likely to be \$640 billion in 2005.⁴ India needs to seize this opportunity. Areas where e-solutions are in demand include customer relationship management, supply chain management, enterprise resource planning, information management, Internet services, and application service provision. I will describe below the demand of global business in these areas and opportunities for India's software and services sector.

Supply Chain Management & Buying and Selling

Corporate buying becomes much easier because buyers can directly approach sellers over the net. A corporate extranet is approximately 10 times less expensive than the old electronic data interchange (EDI), used for corporate purchases. Moreover, Internet commerce through an extranet can occur independent of any one operating platform. It also offers media-rich marketing and customer feedback, services traditionally unavailable through the EDI.⁵

Supply Chain Management leads to optimal demand management. Dell is constantly able to spot its suppliers on the net. It allows suppliers real-time access to its orders over the net and keeps its parts only for 8 days. They can flexibly match demand with supply depending on market conditions, thus minimizing the chance of a recession. Weyerhaeuser, a forest product manufacturing company, uses the extranet to allow its consumers to specify the exact features of the door, which feeds into the manufacturing process.

Supply chain management and good enterprise resource planning can lead to an unprecedented level of customization. Dell manufactures a computer after the customer has specified the type

⁴ The Boston Consulting Group (BCG) and NASSCOM, E-commerce Opportunities for India Incorporated (New Delhi: 2001): 16–17.

⁵ Mann and Knight (2000) *op. cit.* (fn.2) 9–10.

of processor, memory capacity, hard disk space display cards, and the type of screen. The US toy maker Mattel allows customers to design their perfect Barbie doll. Orders are sent to the production line in China, from where the product is shipped to the US. The Norwegian bicycle maker DBS Oegland allows customers to design their own version of the Intruder.

Old style manufacturers like Ford, who do not engage in flexible manufacturing, cannot create instant products determined by supply conditions. The color of the Ford car is stamped on the body before the car is made. Result: Ford's degree of flexibility in relation to consumer demand for a particular color is much less.

The auto industry, once a traditional practitioner of vertical integration is moving towards horizontal integration, aided by the net. In the early years of the 20th century, Ford's slogan was "From Mine to Finished Car, One Organization". By 1920, General Motors was not only producing its own engines but also most of its parts. The Internet and B2B commerce in the 21st century has changed all this. GM, Ford and Daimler-Chrysler have established a company called Covisint to handle auto parts transactions from suppliers. The supply chains of these three companies equal \$250 billion.

Operating through the purchase department leads to a proliferation of bad purchases. Centrally planned purchase strategies, where companies negotiate directly with sellers over the net, cuts the sloth. The Internet allows for precise specifications that are recorded, and, enables the concerned corporation to deal with a larger number of suppliers. GE Lighting has cut down costs by 20 per cent. 12 large US companies have pooled their buying power to create a single purchasing consortium for requirements ranging from energy, to advertising and marketing. Covisint, a joint venture between GM, Ford, and Daimler Chrysler aims to weld an entire industry into an eco-system of buyers and sellers.

The Internet allows for the creation of virtual auction markets bringing together buyers and sellers, facilitated by low start-up

costs and broad reach. Auctioneers play an active role in setting prices. Examples include, steel (Metalsite), advertising space (OneMediaPlace), transportation services (National Transport Exchange), computer services (Ace-Quote), and skilled labor services (Smarterwork).

Brokers on the net provide referral services that resemble yellow page directories with comprehensive information and search facility. Sellers place product listings that resemble classified advertisements. Examples include, catalogues for office supplies (Iprocure), industrial chemicals (E-chemicals), construction (Buzzsaw) and bakery supplies (Bakery Online).

Following on the footsteps of consumer based auctions sites like e-bay, India's baazee.com has recorded important successes in selling Bollywood memorabilia, mobile phones, computers, vehicles, travel and electronic goods. Over 500 vehicles and 1000 mobile phones are sold over the net via Baazee.com in a single month.

E-exchanges are double-sided markets like the one for financial instruments. E-exchanges provide services like trading rules, price transparency and centralized clearing. Centralized clearing reduces transaction costs as buyers and sellers need only to settle at the day's end, rather than settle each transaction. Examples include exchanges in, almonds (AlmondEx), oil and gas (Altra Energy), telecommunication bandwidth (Arbinet), chemicals (CheMatch), steel (e-steel), and paper (PaperExchange). Cantor Fitzgerald, dealing with approximately 50 per cent of the global wholesale market for fixed income securities such as treasuries, securities and municipal bonds, is going on-line.

Stock exchanges work well where there are fixed commodities, not with products that have a thousand variations. In such cases, these exchanges work like bulletin boards where buyers and sellers post their prices. Oftentimes, firms fall into more than one of these

categories. PlasticsNet runs auctions for some transactions and broker functions that allow some users to place classified advertisements for some products. Metalsite runs single-sided auctions as well as a double-sided exchange.⁶

The creation of *corporate supply chains and e-markets of various kinds can be facilitated through Internet based software service provision by Indian corporates. Worldwide revenues from supply chain management e-solutions rose from \$41 billion in 2000 to \$62 billion in 2002.*⁷ This is the most significant section of the e-solutions market. The Calcutta based PricewaterhouseCoopers Pvt. Limited provides services in the area of creating virtual markets. Their product Web SD is an e-enabled distribution software for consumer goods industries.⁸

Customer Relations & Customization

The Internet has a unique way of gathering customer data, which can be processed and used to target customers. A click can reveal data about customer behavior. If one purchases books on Amazon.com, the book recommendation engine allows the buyer to record its interests on the Web site. To the extent that purchases provide information that increases the accuracy of future recommendations, consumers may face switching costs similar to those induced by loyalty programs such as frequent flyer miles. They may therefore concentrate on one or a few online retailers.⁹

⁶ These insights are drawn from, Cairncross (2001), *op. cit.* (fn. 2), ch. 6. , and, David Lucking-Reiley and Daniel F Spulber, "Business—to-Business Electronic Commerce," *Journal of Economic Perspectives* 15, 1 (Winter 2001): 55–68.

⁷ BCG & NASSCOM (2001), *op. cit.* (fn. 4): 83.

⁸ NASSCOM, *Indian IT and Software Services Directory 2002* (New Delhi, 2002): 582. I interviewed Mr. Joydeep Datta Gupta at the PricewaterhouseCoopers (P) Ltd. in Calcutta on 21.1.02.

⁹ On ways in which customers and corporations benefit from customization in digital trade see, Cairncross (2001), *op. cit.* (fn. 2): ch. 5. See also, Yannis Bakos, "The Emerging Landscape for Retail E-Commerce," *Journal of Economic Perspectives* 15, 1 (Winter 2001): 69–80.

In a survey of 1700 Indian corporations, it was found that it is easier to retain a customer than get a new one, and it is easier to sell to a satisfied customer than a prospective one.¹⁰ Information products can be sold in various versions, each targeted to a specific customer. This induces customers to reveal their preferences and to price discriminate. Versioning is likely to become widespread as Internet commerce increases the information content of product offerings.¹¹

Customer relations management (CRM) is important work for software and service producers. Much of India's service sector works on customizing Siebel and Oracle solutions for corporations. This work can be done from distant locations by the Internet and takes less time than implementing customization of the enterprise resource planning work.¹² *CRM revenues worldwide grew from \$44 billion to \$57 billion between 2000 and 2001.* CRM is very significant business for Indian software and service companies.¹³

Enterprise Resource Planning (ERP)

Software services that facilitate business functions such as accounting, human resources management (payroll), production and distribution, traditionally come under the rubric of Enterprise Resource Planning. *ERP related e-solutions revenues worldwide increased from \$23 billion in 2000 to \$28 billion in 2001.*

Chem Station, a manufacturer of detergents, found that it was too expensive to ship industrial detergents. So, it decided to set up

¹⁰ Shweta Verma, "Are You Being Served," *DATAQUEST* (New Delhi, Cybermedia, March 31 2002): 86–89.

¹¹ Bakos (2001), *op. cit.* (fn. 9): 70–75.

¹² Verma (2002), *op. cit.* (fn. 10): 88.

¹³ BCG & NASSCOM (2001), *op. cit.* (fn. 4): 83. Interview with Mr. Pradeep Gupta, Managing Director: Cyber Media in New Delhi, 22 December 2001. Interview with Mr. Ravi Pandit, Chairman: KPIT Infosystems Limited in Pune, 1 February 2002.

separate reconstitution plants with a computerized recipe to mix detergents, and electronic monitoring of the plants.¹⁴

ProjectByNet.comTM (Pune based) is Compulink's Web-based "Enterprise Project Management" software that combines the functions of Knowledge Management, Enterprise Resource Planning, and Quality Management for small and medium enterprises. It was the only Indian product to be showcased in Microsoft's Fusion 2001 Annual Summit held in Anaheim (USA) in July 2001. A number of software developing firms have selected ProjectByNet as their Enterprise Project Management software. Compulink became Microsoft's partner for their Business Tools Division that includes products like Project and Visio.¹⁵ ESOP Direct (Pune based) is the first Indian company to provide on-line stock options for employees. This is a complicated but creative task that requires synergizing employee and employer expectations and working within the local legal standards.¹⁶

ERP is a major bread earner for many large Indian software and service companies. Software firms specialize in working with Oracle or SAP. They help their clients abroad to customize these products to the specific needs of the clients. Much of this work can be carried out over the net, once a programmer figures out what kind of customization is required.

Outsourcing and IT Enabled Services

The Internet, by facilitating cheap and easy communication at any time anywhere, makes outsourcing of operations easy. Cisco Systems has certified 32 plants connected with it over the net for meeting its needs. Nortel, the manufacturer of high performance communications

¹⁴ Cairncross (2001), *op. cit.* (fn. 2): 143.

¹⁵ This information is based on the interview of Mr. Vishwas Mahajan in Pune on 2 February 2002 and materials supplied by him.

¹⁶ Interview with Mr. Harshu Ghate in Pune on 2 February 2002.

network, sold many of its plants to other manufacturers. This enabled Nortel to concentrate on its technological niche areas.¹⁷

Propelled by the internet, India is becoming a hub for offshore services like transcription, airline ticketing, back office accounting, call centers, content development and collaborative software development and consultancy work. This mode of service delivery reduces the need for Indians to seek other countries for work visas to service India's exports, which is one of the greatest barriers to traditional service trade. *The industry grew from a base of Rs. 24 billion in 1999 to Rs. 41 billion in 2000.*¹⁸

India has been rated as the best outsourcing destination in the world by the US headquartered Giga Information Group because of cost and quality advantage. In a 2001 survey, it was rated over China, Ireland, Ukraine, Russia, Canada and the Philippines. Outsourcing facilitated by the Internet has boosted India's service exports. Companies like HSBC, Standard Chartered Bank, American Express, and British Airways are setting up back office processing centers in India. Indian companies like Wipro, HCL, Mphasis, BFL and Bharati Enterprises have announced plans to expand their services in the IT enabled services area.¹⁹

Banking and Financial Software

Indian corporates have done well in the area of creating banking and financial software. This business is web enabled and can promote digitized trade. TCS sold 100, 000 copies of a financial software EX. It is developing versions of the product for small and medium enterprises and the small office home office segment. Infosys has sold Bancs 2000 to over 35 customers and is now promoting Finacle, a

¹⁷ Cairncross (2001), *op. cit.* (fn. 2): 142–143, 150–151.

¹⁸ Shweta Verma, "The Next Big Wave," DATAQUEST (New Delhi: Cyber Media, 30 April 2002): 48.

¹⁹ *Ibid.* : 48–50. E-mail communication with Mr. Sourav Adhikari, President HCL Infinet, NOIDA, Uttar Pradesh.

cross channel web enabled upgrade. It is often a good idea to test products in the home market before embarking on the global market. This is an area where foreign firms would find it tough to compete with Indian firms. ICICI Infotech has good offerings in the banking and financial sector.

Iflex Solutions has created a popular banking product Flexcube, which was rated as one of the top two banking solutions in 1999 and 2001. A smaller Pune based CashTech Solutions has created two interesting banking products. Their product Cashin is a comprehensive business engine that supports every form of cash management transaction. Another product CashWeb is an Internet cash management front end that provides transaction initiation and reporting capabilities.²⁰

Information Management (IM)

Information Management involves the creation, structuring and transfer of knowledge with the intent of making the relevant knowledge available to all users at the appropriate time. For corporations, this has the propensity to reduce paper work, drastically reduce delivery charges, and, maintain access and secrecy at the desired level. Value creation can take place over economic boundaries without the taxman ever noticing it. In itself, this activity has the ability to boost e-trade. For Indian software companies, this can mean business that can be delivered electronically over the net.

Project management is easier through the net. According to one estimate, a building project worth about \$100 million generates 150,000 separate documents. Federal Express makes about \$500 million

²⁰ Interviews with Mr. S. Ramadorai (CEO), Ms. Girija Upadhyaya (VP), Mr. Jayant Pendharkar (VP—marketing), Mr. V.V. Easwaran (VP—Finance) at the Tata Consultancy Services headquarters in Mumbai in late January 2002. See also NASSCOM (2002), op. cit. (fn. 8): 185, 376, 400, 702. Also, telephonic interview with Mr. Swapnesh Patel (Director: CashTech Solutions) based in Singapore on 4 February 2002.

from shipping blue prints across the US. Devising an Extranet (a Web site, which is walled off for designated users only) involving architects, engineers and material suppliers can reduce such costs. Records of due dates, material specifications and costs can be especially helpful in a litigious industry. Swinerton and Walberg Builders (USA) reduced by two-thirds the time needed for requests after building a Web site. Similarly, mergers and acquisitions can create a paper trail of 30,000 pieces of paper. London law companies Davis and Co. connect 50 lawyers, 50 accountants, and 50 due diligence specialists working in 12 cities across 9 countries through a secure web site.²¹

The net facilitates innovation through collaborative work. The US Department of Defense's ARPA Net, the Internet's precursor, was created to facilitate collaborative innovation. Boeing's Phantom Works, once the heart of McDonnell Douglas, gathers information from various parts of the company to devise a business strategy. Buying in information by making strategic alliances in different fields reduces the need for producing all the knowledge "in-house". K'Netix, the Web site of the US chemical manufacturer Buckman Laboratories, allows its sales people to guide the company's R & D based on consumer needs. Xerox's Eureka allows its 23,000 service staff to share tips on repairing the company's copiers.²²

Document management is an area where the demand for software service providers is likely to grow. With Internet content doubling every one-year, managing records subject to certain privacy and access specifications is an important service. The Gartner Group has predicted that revenue related to records management will be about \$250 million by 2005. E-records manager based on documentum technologies has over 1100 customers with big players like BP, Amoco, Merck, ExxonMobil, Kodak and Merrill Lynch under its belt. It has potential for growth in government departments, defense

²¹ Cairncross (2001), *op. cit.* (fn. 2): 133–134.

²² *Ibid.*, 134–136.

departments, legal departments, and, in chemical, pharmaceutical and Energy industries. Pune based Impact Systems has purchased the technology and proprietary rights of the Records Manager solution from IBM. The e-RM is designed to meet the US Department of Defense's 5015.2 standard and the 21 CFR 11 requirements.²³

The area of *Information Management* (IM) is an opportunity for Indian software service providers. *The knowledge management portion of the e-solutions revenues has grown from \$2 billion in 2000 to \$4 billion in 2001.*²⁴ Indian companies can seize this opportunity to boost their revenues via the e-route.

CHALLENGES BEFORE E-BUSINESS

Business among corporations flourished but the dot com bubble burst. Any major revolution in the organization of production, be it automobiles or railroads, has led to hype and a temporary setback.²⁵ At its peak in 1999, Amazon.Com's capital value was greater than all of the America's off-line bookstores combined. Yahoo was more valuable than Boeing. America Online had a value greater than General Motors and could buy up Time Warner.²⁶

While it is tough to establish a brand over the net, once the name is established, the net works well by cutting intermediary costs, better interactivity, customization, pointed advertisements, and the possibility of niche markets created by the net. Moreover, e-commerce is not taxed in many parts of the world. Lower

²³ Interview with Mr. Dhananjay Datar (Director: Global Business Development, Impact Systems, Inc) in Pune on 2 February 2002.

²⁴ BCG & NASSCOM (2001), *op. cit.* (fn. 4): 83.

²⁵ On the impact of the information and communication revolution see, Robert O. Keohane and Joseph S. Nye, "Globalization: What's New? What's not?" *Foreign Policy* 118 (Spring, 2000): 107–118. On the hype and recession cycle with any new technology see, BCG & NASSCOM (2001), *op. cit.* (fn. 4): 3.

²⁶ Cairncross (2001), *op. cit.* (fn. 2): 101–102.

taxes boost sales. Consumers are extensively using the net for purchasing stocks (e-Schwab), computers and electronics (Pricewatch, Computer ESP, Yahoo shopping and Shopper.com), music and video (Napster, Bartelsmann, America Online—Time Warner and Yahoo), airline tickets (Travelocity and Expedia), and reputation services (Bizrate).²⁷

Challenges to the net remain. It is not easy to make payments through the net because of the difficulty of identifying and securing a particular transaction with a particular person. Second, the Internet has ways of gathering and processing information without a potential customer's prior consent, which an individual may not be willing to part with. Third, physical delivery remains a challenge in many cases. Fourth, the net is often unable to take the customer load during a buying season.

The business to consumer segment of retail e-commerce is a rather distressing story in India. The BCG—NASSCOM study (2001) estimates that despite about 35 million online users in India by 2005, Internet related retail sales are likely to be less than 1% of total retail sales.²⁸

Cutting Costly Intermediaries

There is a conflict of interest between the traditional retailers who charge their premiums, and the internet's ability to reach digitized products directly to the customer at low costs. *Encyclopedia Britannica* dominated the market till 1990, when Microsoft introduced Encarta. When *Encarta* was launched it came free with many PCs, as it cost almost nothing to reproduce it. *Britannica*, on the other hand, was being produced in Chicago at a cost of \$250 plus the \$500 commissions charged by retailers. Challenged by *Encarta*, *Britannica* first introduced its CD ROM version at a high price, then reduced

²⁷ Bakos (2001), *op. cit.* (fn. 9): 69–80; and, Cairncross (2001), *op. cit.* (fn. 2): ch. 5.

²⁸ BCG & NASSCOM (2001), *op. cit.* (fn. 4): 14.

the price of the CD ROM, and finally posted it free on the net, hoping to recover resources from advertisements.

Costly overheads such as commissions due to retailers or other intermediaries are being challenged in areas such as airline reservations, music and video on demand, and stock trading. In 1999, online penetration of the US travel market was 2 per cent. Many travel agents would be pushed out of business by the loss of 3 to 5 per cent of their market to the net. Newspaper classified advertisements could be “blown to bits” because of the reach and the low price of postings on the net. Buying movie tickets, banking, ordering a video or a music number will become easy with the combination of mobile telephony, Internet, computer and the television.²⁹

Secure Transactions

The security of transactions over the net poses a problem when companies deal with consumers online. This is less a problem with B2B commerce than with B2C commerce. Corporations have the financial muscle to deal with suppliers across national boundaries using the laws of the country of origin. Corporations are big, few and identifiable, and interact continuously over time over their secure extranet. But, dealing with small buyers has greater problems. First, corporations have to deal with many buyers. Second, if it's a company situated in a different country or in a different city, it may not be easy for a small buyer to deal with the company in case of a complaint.

Credit cards are the dominant payment mode in the electronic mode for the consumer. In countries like Sri Lanka banks put a low credit limit. In countries where there is a currency risk or risk of default, the service charge on a credit card may be high. Second, what happens to a cardholder in the case of a transaction with a fraudulent seller, or if a credit card number is leaked? In the US, the

²⁹ Cairncross (2001), *op. cit.* (fn. 2): 103–106. Bakos (2001), *op. cit.* (fn. 9): 75–77.

cardholder is liable for nothing in the case of a fraudulent transaction. In Taiwan and El Salvador the cardholder is liable for the full amount of a fraudulent purchase, but must go to court.

Even legitimate cardholders are using their cards fraudulently. Mohamed Mustafa & Shamsuddin Company, a departmental store that adopted online selling in Singapore, found that out of total sales of \$2 million, credit card theft by customers amounted to \$300,000 to \$500,000. Cardholders received their goods but charged it back to the customers. Verification of the identity of the buyer by the seller is an important aspect of the security question.³⁰

INTERNET TRADE REGULATION

This section will discuss three important issues that face Internet trade politics—taxation, intellectual property, and privacy. This politics reveals the US's urge to open up Internet trade, and the EU's urge to restrict that trade. The US is the dominant producer in Internet Commerce. The EU, on the other hand, fears that it may be swept away by this dominance. The EU's restrictive behavior is clearly evident in issues such as taxation and privacy, where it is looking for higher taxes and greater privacy. Concern for greater privacy over the net is EU's way of depriving US firms access to European data on customer preferences.

The Politics of Taxation

Buying and selling involves taxation. Taxation earns governments precious revenue with which they can perform functions that markets cannot. Moreover, even markets need institutions such as law enforcement mechanisms and regulations without which they

³⁰ On the security of transactions over the net and problems thereof see, Mann and Knight, *op. cit.* (fn. 2): ch. 4.

cannot perform effectively. Taxation is relatively easy when buying and selling is within a country's real economy. It becomes complicated when products are produced in various locations and sometimes cross borders through the electronic rather than the goods route.

Europe and the US have different visions of internet trade taxation. Trade, where orders go through the net but supply is through physical delivery, follows the canons of goods trade. But trade in digitized products that involve order and supply through the net, have increasingly become a bone of contention. Europe wants to tax domestic and international transactions while the US wants to stay away from taxation. The US wants the WTO moratorium on taxes on products where order and delivery both occur through the net, to continue. This political understanding was reached in the Geneva WTO ministerial meeting in 1998. Europe deems the failure of Seattle to be the end of that moratorium. The European Union acquiesced to the US position on taxation in Doha and agreed to continue this status quo. However, the recent EU decision regarding a VAT on e-commerce nullifies this move.

The moratorium resulted partly because of the problem of monitoring taxation on the e-mode. Monitoring, which is possible though not easy, is likely to infringe privacy over the net. Since, the net encompasses the globe, it is not clear who will determine what to collect and in which country. Jurisdictions are national but trade is transnational. Will credit card companies or some world tax organization collect Internet taxes?

US Interests

The US Internet Tax Freedom Act (ITFA, 1998) was consistent with the understanding reached within the WTO in the Geneva Ministerial (1998). The US's ITFA did not put a moratorium on Internet taxation, but only on discriminatory taxes and on Internet access taxes. In the US, sales tax cannot be levied on transactions with firms that do not have physical presence within the state of the consumer. The ITFA upheld that principle. The internet only made

such non-taxable transactions a more significant volume of trade in the US economy. Thus Amazon.com set up physical presence in the sparsely populated state of Washington. Amazon customers in Seattle pay sales tax but majority customers who reside outside the state of Washington do not.³¹

Will this create a problem for the US's tax base? In the short run, the US can ignore tax implications and concentrate on growing and consolidating commerce on the net. According to calculations made by Goolsbee based on figures available in 2000, the loss of revenue was \$612 million out of total sales tax revenue of \$203 billion, or just 0.3 per cent. This figure could rise to 2.3 per cent in 2004.

The Gilmore Commission dedicated to the question of internet taxation (March 2000) could not gain the required two-thirds majority to recommend a course of action. The majority of the commission's members recommended that the same principles continue for another five years, and that digitized products downloaded over the net be tax exempt. For purposes of tax neutrality their tangible equivalents in the form of goods (e.g. Cassettes, videos, books, floppies and CDs) should also be tax exempt.

Goolsbee has suggested that the current US framework be continued so that network externalities promote commerce, productivity and growth. Once, Internet commerce is more widespread, taxation should be introduced. By that time revenue losses due to the Internet will become significant.³²

The US wants zero international trade taxes for transmissions where order and delivery both occur through the net. These transactions are not easy to detect and therefore tough to tax. But,

³¹ Cairncross (2001), *op. cit.* (fn. 2): 179–180.

³² On taxation and revenue collection from digitized trade see, Austan Goolsbee, "Implications of Electronic Commerce for Fiscal Policy," *Journal of Economic Perspectives* 15, 1 (Winter 2001): 13–23; Mattoo (2001), *op. cit.* (fn. 1): 958–959; and, Cairncross (2001), *op. cit.* (fn. 2): 178–181.

such actions can be trade distorting if the Internet mode is not taxed, but the non-digitized mode for the same product is. The digitized mode may then become preferable because of preferential trading principles that discriminate against non-digitized products. To harmonize digitized with non-digitized trade for the same products, the US wants that non-digitized or tangible equivalents such as floppies, cassettes and books, also be tax exempt.³³

EU's Interests

The story within the EU is just the opposite. Value added taxes (VAT) comprise 30 per cent of the revenue in many countries. In the US, consumers generally pay sales tax on tangible property and not on services. It accounts for about 12 per cent of the state and local government revenues, although in states like Texas the figure is higher. Business inputs are generally exempt from tax. In Europe, VAT is a tax on supplies and goods at all stages of production. It is charged by the suppliers and credited by the users of inputs. The final consumer not being a VAT registered entity finally pays the tax. Some businesses like financial institutions find it tough to get credit for VAT and pay it themselves. VAT is designed for within state transactions. Importers are assessed for tax but exporters get a rebate. Services tend to be taxed higher than goods.³⁴

The EU made the political decision to charge VAT on digital sales of radio and television broadcasting, and electronically delivered products and services in June 2000. The decision to approve the new rules was made in a VAT directive of February 12, 2002. The rules are scheduled to be in place after translation into EU's 11 languages and consultation with the European Parliament by July 1 2003. There is political weight behind these rules despite technological and administrative challenges.

³³ Mann & Knight (2000), *op. cit.* (fn. 2): 84–86.

³⁴ *Ibid.* : 86–90.

What will change after July 1 2003? Today, EU sellers pay VAT for digitized service exports (except certain telecommunication services) in the country where the services are produced. They pay taxes in Europe no matter where the customers are. Non-EU sellers do not pay taxes on sales of digitized products within Europe. Therefore, while US sellers do not pay taxes either in the US or in Europe, the EU sellers pay taxes in Europe for their exports to the US. This VAT system in the EU today discriminates against EU sellers today.

Under the new directive, non-EU companies will pay taxes in Europe where the customers reside. Therefore, EU sellers will pay taxes only for EU sales and not US sales of European products. This is because there is no taxation for digitized trade in the US today. The EU directive does not include sales of digitized products to business buyers, as these companies already self-impose VAT on purchases of these kinds of products. What Europe wants to protect in the consumer segment includes

- Web-site supply, web-hosting, distance maintenance of programs and equipment;
- Supply of software and updating thereof;
- Supply of images, text and information and making databases available;
- Supply of music, films and games, including games of chance and gambling games, and of political, cultural, artistic, sporting, scientific and entertainment broadcasts and events; and,
- Supply of distance teaching.

Non-EU firms must establish their tax identity within the EU to determine which tax rate applies. The suppliers will have to register as a VAT identity in at least one of the EU countries, and, the country of registration will remit the appropriate tax collected to the customer's country, consistent with that country's VAT rules. The EU thinks that it will be possible to streamline this task online. The sellers will be able to fulfill all their obligations remotely without the need of physical presence or a representative in Europe. The original proposal

talked about taxation on revenues greater than Euro 100,000/—but no such mention is made in the current directive. Moreover, it is not known whether there will be a minimum threshold set by each country or not. The sellers will have to comply with the rates of the country where it is registered, as well as, comply with the provisions of the state where the services are consumed.

There is the possibility that the physical product may be taxed less than its digitized counterpart. The EU wants its VAT items such as sales of radio and television broadcasting and the above-mentioned digitized products to be treated as services. This is because VAT on services is generally higher in the EU than the VAT on goods. If this happens, it will challenge the principle of tax neutrality, which is central to trade.

Customs agents would not be able to collect taxes for transactions where order and delivery is over the net! Today customer identification is not possible, and, if such technology is deployed, it may raise problems for Europe's very own passion for the protection of privacy. It will be a nightmare maintaining tax records in detail, sufficient enough for the state where the consumption is taking place, to determine that the value added tax return is correct. This will result in substantial compliance costs for the seller and will act as a barrier to trade.³⁵

Analysis

The US is trying to keep the taxation problem under control by not taxing international trade in digitized products for the moment, so that the volume of the new economy can increase before taxation begins. Europe, on the other hand, is taking measures to restrict this trade by introducing complicated tax

³⁵ This material was obtained from, David Hardesty, "European VAT on Digital Sales," downloaded from <http://www.ecommercetax.com/doc/030302.html> (3 March 2002). See also, European Council, Council Directive amending Directive 77/388/EEC, dated 12 February 2002. Insights were also gained from Mann & Knight (2000), *op. cit.* (fn. 2): 83–90; Goolsbee, *op. cit.* (fn.32): 13–15.

mechanisms before even commerce takes off. If other countries that want to restrict trade in digitized products see Europe succeeding, they are likely to bandwagon with Europe.

The EU and the US have opposing positions on *tax neutrality*. The US is seeking to harmonize taxes between similar digitized and non-digitized products downwards, by suggesting that all tangible goods that have intangible or digitized counterparts be tax exempt. The EU, wants to apply the VAT to both, and was until recently trying to harmonize taxes upwards by taxing digitized products and their physical counterparts at the rates at which VAT is applied to services. This is because services are generally taxed higher than goods in the EU. The Directive of February 12, however, keeps the possibility of taxing services and goods at differential rates. If digitized media products are taken to be services in Europe, then their physical counterparts will be taxed less. In that case, EU would have given up all its pretensions about the sanctity of the tax neutrality principle.³⁶

Direct taxation poses a challenge. Taxation based on “residence” is favorable to the US. “Residence” is where the firm most central to the bundled product maintains its strongest ties. Microsoft and Intel may be creating significant value in India but may be residing

³⁶ In the past, both the EU and the US were trying to accommodate the idea of *tax neutrality*. Tax neutrality suggests that the new economy and the old economy should be taxed equally. If one is taxed less, then trade may face the problems of trade diversion away from that mode, a phenomenon similar to trade diversion resulting from regional trading arrangements. The US was arguing for tax neutrality by stating that digitized products and their non-digitized equivalents should both be subject to zero international trade taxes. The EU wanted VAT services tax on both digitized products and their non-digitized counterparts. The EU Directive of 12 February 2002 seems to record change in the EU's desire to protect tax neutrality. To understand these issues I have drawn from, see Mann & Knight (2000), *op. cit.* (fn. 2): 84–86. Hardesty (2002), *op. cit.* (fn. 35): 3. Aadiya Mattoo and Ludger Schuknecht, “Trade Policies for Electronic Commerce,” (Unpublished ms, 2000): 6–8. Dr. Dr. Aadiya Mattoo works for the World Bank and Dr. Ludger Schuknecht was working for the European Central Bank at the time of writing this paper.

in the US. US resident income is derived globally. “Source” is the place where value is created in the form of a sale. “Residence” does not solve the problem of global value creation, when value creation derives from a global network of inputs. *India, South Africa and Australia have taken the position that the source of value creation rather than residence should be the place where taxation should occur. The US wants taxation to be based on residence.*³⁷

In internet trade, it is difficult to establish physical presence and dependent agents, the two conditions necessary for establishing “permanent establishment” (PE). The concept of permanent establishment is central to taxation. Global tax treaties allocate income according to “permanent establishment” and give tax credits to avoid double taxation. Do web sites and servers constitute physical presence if located within a country? Or, do they constitute dependent agents if they are not located within a country, but are open to business there.

Second, do data flows initiated by the server and the web site (targeted advertising) or by the user (information gathering), represent “permanent establishment”? If the web site merely broadcasts the information and the purchaser contacts the web site, which then contacts the server, it would seem impossible that the physical location of the server constitutes a “dependent agent” or a nexus. Suppose the server can individually target customers in another country. Does this change the notion of dependent agent or nexus? Will two purchases, one where the server targeted the buyer, and the second where the buyer downloaded the product of his own accord, be treated differently?

India’s Finance Ministry’s *Report on E-commerce and Taxation* wishes to do away with the concept of permanent establishment. The argument is that business profits are taxable in a country only to the

³⁷ On the politics of source versus residence-based taxation see, Mann & Knight (2000), *op. cit.* (fn. 2): 91–95. I benefited from discussions with Mr. Rajendra Chitale and Mr. Paresh Budhdev of M. P. Chitale and Company in Mumbai on 5 February 2002.

extent that they are attributable to permanent establishment in that country. In the traditional world, large scale selling in a country is not possible without a physical presence in that country. In the new economy, if a web server or a web-site hosted on a server constitute permanent establishment, then most such infrastructure being present in industrialized countries—will constitute a transfer of resources from the country where the digitized product was produced, to those countries which have a large number of servers, especially if the two are not identical.

Since most of today's servers are in the US, it will gain the most if PE is related to the presence of servers. Moreover, the US depends more on direct taxation than on indirect taxation for its revenues. It is not surprising, therefore, that it wants to establish servers as PE, since this will allow the US to tax along the route where it collects most of its taxes.

*India, along with other server scarce countries may lose because value creation may be taking place in these countries, when most of the servers are in the US. Spain and Portugal have placed reservations on considering the server as a PE.*³⁸

Intellectual Property Rights

Property right over the electronic medium is difficult to protect because replicating is inexpensive over the net. The US loses the most if property rights are not secured over the net. The US has the greatest number of globally recognized brands and is the biggest exporter

³⁸ On permanent establishment, I consulted Mann & Knight (2000), *op. cit.* (fn. 2): 90–92; Central Board of Direct Taxation, Ministry of Finance, Report of the High Powered Committee on E-commerce and Taxation (New Delhi: 2001); and, David Hardesty, "India To Go Its Own Way?" downloaded from <http://www.ecommercetax.com/doc/021002.html> (10 February 2002): 1–3. I gained from discussions with Shailesh Haribhakti (CEO: Haribhakti Group) in Mumbai on 4 February 2002, and, with Rajendra P. Chitale (Managing Partner: M. P. Chitale and Co Chartered Accountants). in Mumbai on 5 February 2002.

of intellectual property in the form of movies, music and software. There are two ways in which the issue of intellectual property over the net can be addressed. The first is to concede that intellectual property will be tough to protect over the net and therefore search for non—IPR based alternative business models. The second is to find governance mechanisms that make it possible to protect intellectual property over the net.

Alternative Business Models that Do Not Depend on IPRs

The Internet is an easy venue for copyright violation. Once a copyrighted material such as a cassette, a CD, a floppy, or a book is converted into digital form several copies are made instantaneously. The first copy is made so that the document can be sent from the remote computer to another personal computer. The second copy is made when the document is loaded into memory and a third one when the document is displayed on the screen. An infinite number of excellent copies can be made at almost zero cost. This creates the incentive not to buy software. Industrial strength encryption is one answer to the problem of piracy. But, consumers will pay the price of slow Web access when they are keen on speed.³⁹

Digitized music poses a severe challenge to the music industry. MP3.com allowed music listeners to download music from the web using a digital compression technique called MP3. In April 2000, MP3 lost a case to the US records industry. The industry also won a case against Napster, which was alleged to have “launched a service that enables and facilitates piracy of music on an unprecedented scale”. Napster enables material to be stored and retrieved from one of the millions of computers attached to the Internet, where these computers work like servers on which the material displayed on web sites is generally stored. As more and more PCs get hooked on

³⁹ Randall Davis, “The Digital Dilemma,” *Communications of the ACM* 44, 2 (February 2001), 77–83.

to the Internet, they work like a giant storage network. In autumn 2000, the German music company Bartelsmann bought a huge stake in Napster hoping to exploit its customer base after turning it into a paying company. Digitizable books, videos and software will face the same problems.

How will copyright be secured in a technology driven world running ahead of regulation? One way to earn from intellectual property is to depend on business models that need little intellectual property protection. Esther Dyson has suggested that content could be given away to advertisers, who may distribute it to attract buyers to its products. The second model is to sell the razor cheap but charge mainly for the blades. A book could earn from subsequent invitations of the author to conferences. A third proposal is in the form of a "serviceright". A book may not be charged for reproduction but for services such as updating the original material. Even if people can download material from the web, they may want to pay for the product because of better quality. In the first quarter of 2000, at the height of the Napster boom, music sales in the US were 8 per cent higher than the previous year. They may also pay for faster downloads and easier ways to detect the precise number they want. If Internet music players adopt the pay per song model over the Internet, the artist may benefit by being able to directly reach audiences.⁴⁰

One of India's entertainment industry gurus is of the opinion that protecting intellectual property on the net will be less of a challenge than keeping transfer-pricing mechanisms alive. It will no longer be possible to price a good much higher in the US than in India when trade is along the digitized mode. This may drive down the prices of digitized products in rich countries.⁴¹

⁴⁰ Cairncross (2001), *op. cit.* (fn. 2): 234–238. See also, Nicholas Negroponte, *Being Digital* (New York: Vintage Books, 1995): 58–61.

⁴¹ Discussions with Mr. Amit Khanna (Chairman: Reliance Entertainment) in Mumbai on 5 February 2002.

Deliberations Regarding Intellectual Property Protection

The second model, which is increasingly becoming important, is to find the institutions and conditions under which intellectual property over the net can be secured. Under the World Intellectual Property Organization (WIPO), two treaties updating the Berne Convention were negotiated in December 1996. As of June 2000, 18 countries had ratified the Copyright Treaty and 15 had ratified the Performances and Phonograms Treaty. The US had deposited the instruments of ratification with the WIPO in September 1999. The treaties will enter into force upon ratification by 30 countries. Intellectual property protection regimes concerning the net will ultimately have to adjust to technology driven challenges.

A consensus on the decision whether to treat digitized products as goods, or services or something else, has not been reached. *The US's Uniform Computer Information Transaction Act (UCITA)* treats digital goods neither as a good nor service, but as a transfer of right to use intellectual property. The Clinton administration was off the view that whatever the definition, it should not lead to digitized media products getting privileged over goods, for the purpose of taxation. Technological neutrality, non-discrimination, national treatment and the most favored nation treatment should apply to e-commerce as well as to conventional trade.

Recent policy changes in the US Patent Office (USPTO) and the European Patent Convention have rendered business method software the fastest growing category of patents. In September 1999, the USPTO granted 600 patents out of 2600 applications on software patent applications. TRIPs gives a 20 year protection to patents, but Jeff Bezos of Amazon.com has suggested that 3 to 4 years is time enough for business method software, because of a faster rate of obsolescence. Second, reverse engineering is allowed in TRIPs. While this allows new entrants to build on and augment existing platforms and furthers network benefits, it scuttles intellectual property protection.⁴²

⁴² Mann & Knight (2000), *op. cit.* (fn. 2): 117–121.

Tata Consultancy Services has argued against the Andhra Pradesh High Court decision to treat customized software as a service but software products as goods. In a case pending before a constitutional bench of the Indian Supreme Court they have stated that a computer program is a classic form of intellectual property, where the cost of the floppy or a CD is incidental to the product. There are obvious similarities between the US and TCS positions that Indian policy makers must try to discern.⁴³ There is need for a global democratic process of recognizing innovation, which will reduce the transactions cost of obtaining a patent in different territories.

India's High Powered Committee on E-commerce wants to collect taxes from sales of digitized products in India. The High Powered Committee has taken the view that any download from the Web of software, electronic books or other digitizable items is a transaction that results in a royalty payment. This Committee has taken a broad meaning of "use" of a copyright. The OECD view is that royalties on copyrighted materials result only from the purchase of the right to commercially exploit a copyright. This includes for example, the right to sell or rent copies of the material, the right to prepare derivative copies from the material, or the right to make public performance or display of the material. In a OECD Report dealing with 28 types of transactions, the OECD found 1 to be taxable. The Committee found 13 of the 28 transactions taxable.

The Committee's suggestion takes away the teeth from India's argument regarding source-based taxation discussed above. India, Australia and South Africa desire taxation at source—where value is being created, rather than where the product is being consumed. This is a good way to ensure that countries like India gain from the creation of value in India. The Committee, on the other hand, has made the plea that value is created also as a result of the demand

⁴³ I have gained in this area from discussions with Dr. Prabudhha Ganguly in Mumbai on 4 January 2002.

in the buyer's country, and the buyer's country must therefore have the right to tax.⁴⁴

The Committee's attempt to expand India's tax base by a particular interpretation of copyright may hurt its trade. This is especially worrisome because India's retail e-imports are not likely to surge for a variety of infrastructure, governance and foreign exchange related reasons. According to one estimate, if the delivery of all digitizable media products moved online, India would lose only 0.4% of its tariff revenue and 0.1% of its total revenue.⁴⁵

The world of trade is one of reciprocity. If India thinks that it can extract resources in this way, other countries will not be found wanting in raising the price of Indian digitized exports, which have potential both in terms of earning India foreign exchange, and, through source based tax revenues. While India's software and service producers face liberal trading conditions in the US, they are subject to withholding taxes on intellectual property licensing in Japan, Thailand and Singapore to the tune of 15% and 25%.⁴⁶ Apart from India and South-East Asia's strengths in the software sector, Brazil, Mexico, Egypt and India have a stake in movie and music exports through the digitized mode.

India should join the US to fight the EU's VAT taxes and East Asia's withholding taxes in order to promote its exports. It has little to gain if it joins the EU and East Asia to impose taxes that will fetch little domestic revenue and kill its exports.

An important fight for Internet property is over domain names, which in the old economy would translate into brand names. In www.ibm.com, ibm stands for International Business Machines

⁴⁴ High Powered Committee on E-commerce and Taxation (2001), *op. cit.* (fn. 37); Hardesty (2002), *op. cit.* (fn. 37): 3–4.

⁴⁵ Mattoo (2001), *op. cit.* (fn. 1): 959.

⁴⁶ Discussion with Ravi Pandit (Chairman: KPIT Infosystems Limited) in Pune on 1 February 2002. Electronic communication from Swapnesh Patel (Director: CashTech Solutions) on 6 February 2002.

and not Interested Business Madmen. Each domain name is unique because of its spelling. Of the 25, 500 available standard Englishlanguage dictionary words, only 1760 were free for desirable domain names in April 1999. There is now a fight for domain names as fewer names remain for new entrants. For example, www.sun.com stands for Sun Microsystems, and not for Sun Oil or Sun Photo. Once sun.com has been used, Sun Oil and Sun Photo will not be able to locate themselves as sun over the web, unless they buy the name from Sun Microsystems. An American journalist grabbed mcdonalds.com before the hamburger empire could lay its hands on it. He then sold it back to McDonalds in return for a sum that was given away to charity. Cyber squatters register names of actors and actresses only to be able to sell them later on to the concerned persons.

Should the fight over names be settled in the courts, or should it sell for a price? Courts cannot create new names. But, the naming industry could be worth \$2 billion. Business.com changed hands for \$7.5 million. WIPO ruled in 2000 that names of living people could not be made domain names.

Can there be international brands that would be protected over the net? Internet domain names are not intellectual property yet, and are still in the domain of soft law. Well-known marks are protected in TRIPs. The WIPO's recommendations to ICANN are significant for governing domain names. It has been suggested that proper registration of address and whereabouts is essential. The process should be quick and efficient and should exclude well-known marks. It is suggested the of creation top-level domain names like .biz for business and .pro for lawyers, accountants and physicians. Apart from non-commercially used domain names, for commercially used ones, IPRs should be protected as geographical indications, services, trademarks and certification marks.

Australia is of the view that the globalization of well-known marks should occur through the WIPO and the relationship between the

WIPO process and TRIPs should be carefully studied. *There is great merit in this suggestion and India should follow it up.*⁴⁷

An important issue is the relationship between the WIPO treaties and the TRIPs. The WIPO is more tolerant of individual country requirements and more respectful of sovereign rights. The TRIPs framework, being within WTO, it has the muscle of the dispute settlement mechanism behind it. TRIPs is therefore likely to have a more homogenizing effect of producing harmonious intellectual property rules than the WIPO. The crucial question is whether the WIPO will be able to protect intellectual property in manner that will render the Internet a robust medium for the exchange of intellectual property. *Given visa restrictions that impede service trade, the digitized route must become a credible medium for India to service its exports, thereby reducing the need for Indian skilled personnel to travel abroad.*⁴⁸

Technological neutrality with respect intellectual property rights in the new and the old economy will make the Internet a robust medium for commerce. If the old economy gives better protection than the new one, then the best products will shy away from the new economy. *If India has to protect its creative potential, it should make a strong case in favor of technological neutrality with respect to the old and the new economy. India should join the EU, US and Australia in exploring the*

⁴⁷ On cybersquatting see Cairncross (2001), *op. cit.* (fn. 2): 232–234. See David Vivas acquired Abacus Direct Corporation dealing with customer databases, Eugui, Issues on the Relationship Between E-commerce and Intellectual Property Rights in the WTO: Implications for Developing Countries (Centre for International Environmental Law, South Centre, 8 March 2002) downloaded from <http://www.southcentre.org/publications/occasional/paper05/paper5-04.html>. On WIPO's recommendations to ICANN see: World Intellectual Property Organization, Primer on Electronic Commerce and Intellectual Property Issues (Geneva: May 2000): ch. 3.

⁴⁸ On restrictions regarding the movement of service workers see, Rupa Chanda, "Movement of Natural Persons and the GATS," World Economy 24, 5 (May 2001): 641–654.

*technological neutrality of TRIPs and its relationship with WIPO. If India is keen on making WTO the arena of global governance, it must ensure that the WTO should function in a democratic manner.*⁴⁹

Privacy—A Non-Tariff Barrier?

I have described the customer information gathering function of the Internet above. This information when processed helps targeted advertising, versioning, and in building customer loyalty. The problem is that the customer may be unaware when it is parting with information that can be used for purposes that it does not approve of. The EU has tried to protect privacy through stringent government regulations, while the US has been looking more towards self-regulation through private initiative.

ID cards, advertisements, and Web bugs automatically transfer information about the prospective buyer. Cookies are data files that sites embed on a user's browser when a person visits a Web site. The cookie contains an identifying number that can locate a Web surfer. If a user gives its name to the web site then the cookie can crossreference the information. This has led to profiling or the tracking of consumer interests and preferences by tracking their movements online.

DoubleClick the biggest supplier of online advertisements acquired Abacus Direct Corporation dealing with customer databases, in order to practice targeted advertising. This stirred privacy concerns in the US and led to a public outcry. A case was filed in the US Federal Trade Commission (FTC) in the states of Michigan and New York. Michigan directed the company to stop sending cookies without the customer's approval. DoubleClick pledged not to link personally identifiable information to customer identity until there is government-industry understanding on privacy standards. It also

⁴⁹ Eugui (2002): *op. cit.* (fn. 48): 11 and Annex 1.

organized a self-regulating consortium of 26 advertising firms known as the Personalization Consortium.

BBB Online, a wholly owned subsidiary of the Council for Better Business Bureaus, has set the standards for self-regulation on privacy. It reports on how companies treat customers and refers cases of illegal practices to the FTC. It grants to over its 250, 000 members, nationwide use of trustmarks. Trustmarks are awarded to companies that clearly post privacy policies after meeting BBB's disclosure standards. There is a kids privacy seal for the privacy of children online, and a good housekeeping seal for Web sites.

The EU has more stringent privacy standards and uses government regulation. Gatherers of data have to register with government privacy offices. There are limits to direct marketing activities that are commonplace in the US. A 1995 directive prohibited the transfer of data to states whose privacy standards are less stringent than the EU's. This led to an embargo of data from the US to the EU, which could adversely affect US corporations, with subsidiaries in Europe.

The European embargo plus the DoubleClick controversy led the FTC to change its orientation from supporting privacy to encouraging regulation. First, a compromise was reached with the Europeans. US firms receiving EU data will subscribe to BBB online type standards, provide reports to a European data protection authority, and be subjected to the US's FTC authority, if they do not adhere to rules. Europeans can change and inspect data, and can prevent it from being shared with third parties.

There was a feeling of let down on both sides. Europeans felt that their regulations were being watered down, and Americans felt that more regulation inimical to the promotion of commerce was creeping in the European way. The National Business Coalition on e-commerce has likened the agreement to the imposition of an NTB.

The US's FTC has concerned itself about the limits of selfregulation after the DoubleClick controversy. The Children's Online Privacy Protection Act and the financial services legislation

is being seen by many as the first steps towards the government regulation of privacy in the US. A House subcommittee has approved a bill to establish a privacy commission modeled after the Advisory Commission on Electronic Commerce, which addressed taxation. Because of public opinion that charged privacy to be the number one issue of concern regarding the Internet, the Congress even formed a Privacy caucus.

The FTC has moved to the center-stage of US privacy issues. Its role will become more significant when the US-EU accord is implemented. Until May 2000, it had supported self-regulation. Later that same year the FTC reported that only 20 per cent firms practice what the FTC regarded as best practices. Republican lawmakers are likely to strengthen the FTC's ability to wage a battle to secure privacy in America.⁵⁰ In July 2001, a key senate committee began a new push for Internet privacy legislation. Republicans and Democrats both talked about the need for privacy, but a major legislation did not seem likely.⁵¹

I have described the importance of the customer relationship management business for India's software and service providers in the section on Business Opportunities (1.1). This business is second only to supply chain management in terms of worldwide revenue generation, and it is significant for India's software service industry. European moves to protect its customer data to discourage digitized trade, driven by fears of the US invasion into the EU market are not in India's interest. The customer may like to willingly part with some data in order to become an efficient buyer. A McKinsey study found that CDnow, Amazon.com and Onsale generate more than 50% of their sales from the revenues generated by returning customers. Customers may part with private information if they are rewarded

⁵⁰ Mann & Knight (2000), *op. cit.* (fn. 2): 122–134.

⁵¹ E-mail correspondence with Profitech on 1 February 2002. Profitech is a technology business consultancy in Mumbai headed by Dr. Prakash Hebalkar.

with that effort, without being inconvenienced by the abuse of that information.⁵²

India should support the US moves to protect the privacy rights of individuals surfing the net without hurting the interests of the consumer and the interests of the CRM business. It should guard against the propensity of the EU to use privacy as a non-tariff barrier on digitized trade.

INDIA'S INTERESTS AND INTERNET TRADE REGULATION

The divergent interests of the US and the EU are due to their different roles in the division of labor in internet trade. Electronic commerce is still mainly American business. 70% of the 60, 000 secure OECD servers were in the US in March 2000. Online US retailers have therefore grabbed important markets abroad. They had 20 percent of the market in Europe and 14 percent in Asia. Amazon, Dell and eBay are expanding their markets in Europe and Asia. The US is the dominant producer, while other parts of the industrialized world are following close behind.

Europe is aggressively pushing for taxes while the US is resisting them. I have described not only the European preference for VAT, but it seems that they want E-commerce to be treated as cross-border service trade. This gives certain benefits to Europe. First, the VAT for services is higher than the VAT for goods. Second, within service trade, cross border trade has less liberal commitments than the consumption abroad mode. This enables Europe to tax e-commerce heavily. Third, the system of VAT collection suggested by Europe in its directive dated February 12, 2002 will increase tax compliance costs for sellers in the European market. Even if Europe does not collect substantial taxes, these compliance costs will act as a barrier to trade in digitized products.

⁵² www.cyberCAindia.com, "McKinsey Report on E-commerce & Trust," NASSCOM—ASSOCIO Special December 2001.

Table 1 Preferences on Key Issues

<i>Issues</i>	<i>Yes</i>	<i>No</i>	<i>Did India do it right?</i>
<i>Zero trade taxes</i>	US, India	EU	Yes
Source-based Taxation	India: Yes and No	US & EU recently	India is speaking with two voices. India needs to say yes.
Let Serve be PE	US, OECD	India, Spain, Portugal & all server-Scarce countries	Yes
Is digitized trade TRIPS compatible?	US, EU, Japan, Australia, India	Poor countries that do not create knowledge	Yes Need for democratic decision making within WTO
Use Privacy to restrict trade	EU	US	India should work with the US

The US, on the other hand, wants zero taxes for digitized trade for the moment. US tax loss due to digitized trade is insignificant at the moment. Its rationale is that trade must grow before taxation is put in place.

What are India's interests in this area? In the section on Business Opportunities (1.1), I have described the potential for e-business revenues despite the dot com failure and challenges to the new economy arising from the security of e-transactions and traditional retailers. The e-business potential lies in Indian software solutions for supply chain management, execution of virtual markets, banking and financial operations, customer relationship management, enterprise resource planning, information management, and, outsourcing and IT enabled services. Digitization helps to fight visa restrictions on India's service trade in these areas. These can add up to \$5 billion

in Indian exports by 2005. Further, Indian movies and music are potential digitized exports in the not so distant future. Given India's poor governance and physical infrastructure, and foreign exchange restrictions, India is not likely to witness a surge of e-imports, which can be a source of revenue.

India has a stake in supporting the US principle of zero taxation on e-trade. If Europe succeeds in imposing the VAT barrier to e-trade, then other countries that lack a competitive export sector in digitized trade will join Europe's protectionism. India must oppose such moves by being a pro-actively liberal trader, and demand reciprocity from others.

Should taxation be source-based or should it be residence based? Countries that create value in their territories but sell in other countries should fight residence-based taxation. The US has argued for residence-based taxation. The prevailing VAT tax in EU is source-based, but the EU Directive of February 12, 2002, is a move towards residence based taxation of e-imports in Europe. Tragically enough, even India's High Powered Committee (Finance Ministry) has suggested the collection of taxes on royalty derived from digitized material created abroad but downloaded in India, on the grounds that Indian demand leads to the creation of value in India. This is precisely the US argument in favor of residence-based taxation that India has opposed.

India needs to decide whether it wants to charge taxes on its miniscule e-imports, thereby sending a protectionist signal. Or, does it want to keep taxation on digitized imports low, so that it can promote its trade abroad, earn foreign exchange, and gain from Indian source-based taxed revenues. The latter is financially more rewarding for India than the former. If India wants to fight against residence-based taxation as it has done in the past, it will find friends South Africa and Australia, and, perhaps even in Israel and Ireland.

India's High Powered Committee has taken a prudent position by suggesting that Permanent Establishment (PE) cannot be the server on which the Web site is hosted, even though this is consistent with past practise in the old economy. In the past, PE had something to do with volume sales in a particular country. If a US server hosting an Indian Web-site were to be deemed as PE and were therefore taxed in the US

for business largely taking place in firms outside the US, this will generate a transfer of resources from server scarce countries to the US. For the US, this is a convenient way of taxing corporate profits because the US earns more from direct taxation of corporations than from indirect taxes. *India must oppose this move of the US and is likely to find friends in a majority of countries, since most do not have an abundance of servers. Spain and Portugal have placed reservations on using a server as PE.*

In the intellectual property area, India needs the protection of copyright, patents and brand names. Technological neutrality—in this case, the granting of identical intellectual property protection in the old and the new economy, is essential for the protection of Indian innovation, which can be transmitted through the digitized mode. Otherwise, the net will not be a robust medium for the transmission of intellectual property.

TRIPs within the World Trade Organization (WTO) is technology neutral. The WIPO has made significant progress in the digital intellectual property area, but lacks the Dispute Settlement Mechanism of the WTO. TRIPs is likely to create more harmonious global rules on intellectual property than the WIPO. While the WIPO will be greater respecter of sovereignty, TRIPs is likely to result in better global governance.

If India wishes to examine the appropriate role for TRIPs in the context of developments regarding the protection of intellectual property within the WIPO, it will find supporters in the US, the EU, Australia and Japan. India must ensure that decision-making within the WTO is democratic and that it does not become an exclusive club for promoting the interests of powerful traders.

Europe's higher privacy standards are due mainly to its protectionist interests in digitized trade. Europe fears that if US companies gain unlimited access to data regarding European consumer preferences, this would help the US to penetrate the EU market. Europe declared that it would not share data with those who do not hold the high standards of Europe. The US—EU compromise highlights the stakes

in this commercial battle. US business groups are still unhappy about the compromise restricting their use of European data.

The US, on the other hand, began with the private sector regulation of privacy. But US consumers are unhappy with the effectiveness of private sector regulation. The controversy over DoubleClick's acquisition of Abacus Direct Corporation raised the ire of US consumers. Increasingly, the US is faced with consumers whose preferences are closer to the EU's, but a private sector that thinks that consumer data should be made available more freely. US companies like Amazon, Cdnw and Onsale that use rather than abuse customer data earn more than 50% of their revenues from returning customers. There is a positive sum between the customer, who will willingly part with certain data to increase the efficiency of its purchase, and the willingness on the part of the retailer not to misuse that data.

Given India's interests in e-solutions for the customer relationship management business, India should explore the optimality criterion with regard to privacy that will hurt neither business nor the consumer. India's interests in this area lie more with the US than with the EU.

In sum, digitized trade is an area where rules regarding taxation, intellectual property and privacy are still in evolution. India's exports through the digitized mode can help its service industry fight the visa barriers to Indian exports. *On tax collection, India should side with the US to fight the taxation of digitized imports. India, Australia, South Africa, and other countries that create value and export, should fight for source-based taxes as opposed to residence-based taxes. India has rightly waged a battle against the OECD's idea that a server on which a Web-site is hosted, should be treated as permanent establishment. In the intellectual property area India should explore the possibility of linking the work of the WIPO with TRIPs, while ensuring that decision-making in the WTO is democratic. India can obtain the support of the US, the EU, Australia and Japan in this endeavor. Last but not the least, India must explore the optimality criterion in respect of privacy that aids the consumer, the seller, and India's e-solutions producers.*

