

THE NEW UNCITRAL E-COMMERCE CONVENTION
IN THE MOSAIC OF DEVELOPING GLOBAL LEGAL INFRASTRUCTURE

by

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At the 53rd plenary meeting of its 60th Session, United Nations General Assembly adopted the Convention on the Use of Electronic Communications in International Contracts (the “E-Commerce Convention”).¹ The E-Commerce Convention will be open for signature at United Nations Headquarters from 18 January 2006 to 16 January 2008. This convention, if widely adopted, will help reduce the legal barriers to international business transactions using Information and Communications Technologies (“ICT”). It will also provide another piece in a mosaic of development efforts that can assist businesses, including small and medium sized enterprises (“SMEs”), to grow in regional and global marketplaces using ICT. On a global basis, that potential is significant: global e-Commerce was predicted to reach nearly U.S.\$12.8 trillion by 2005² and a substantial portion of that amount is business-to-business (“B2B”) transactions.³

There has been much written about the need for substantially increased technological infrastructure in order for developing countries to reduce the so-called “Digital Divide.” For developing regions, however – as has been true in developed countries – the availability of ICT and its physical infrastructure is not enough to ensure sustainable business development. Without the availability of an appropriate legal infrastructure (domestically and internationally) to facilitate business development through electronic means, barriers that marginalize these business opportunities will continue to exist. The lack of legal certainty in e-Commerce business transactions and the need for increased legal “interoperability” in cross-border transactions are key areas of concern.

The new E-Commerce Convention presents an opportunity, along with other actions noted below, to develop and to refine the international legal architecture that can take advantage of technological infrastructure supporting business development and economic growth through electronic commerce. It is significant not only for the developed world, but also for those countries in which digital commerce opportunities can narrow the growing trade-development gap with developed countries.⁴ This paper explores the benefits of this convention within the broader context of the legal infrastructures needed for businesses to participate in the benefits of the global digital economy.

After some background material (Part I) and a general statement of the benefits of the E-Commerce Convention to adopting countries (Part II), we present an overview of its provisions, relying in part on discussions within the Working Group (Part III). The latter was prepared independently of and before the recent publication of the Secretariat’s notes.⁵ The last section (Part IV) is based on positions taken by one of the authors in Working Group and American Bar Association meetings, and hinted at in one of our earlier papers,⁶ but never previously presented in print.

I. Background

The mission of the United Nations Commission on International Trade Law (“UNCITRAL”) is “to further the progressive harmonization and unification of the law of international trade.”⁷ UNCITRAL is the core legal body of the UN system in the field of international trade law.⁸ An underlying theme recognized by the General Assembly in this regard has been the potential benefits that such harmonization would have for developing nations. For example, the General Assembly noted, in a 2002 Resolution regarding the work of UNCITRAL:

Reaffirming its conviction that the progressive harmonization and unification of international trade law, in reducing or removing legal obstacles to the flow of international trade, especially those affecting the developing countries, would contribute significantly to universal economic cooperation among all States...

Emphasizing the need for higher priority to be given to the work of the Commission in view of the increasing value of the modernization of international trade law for global economic development and thus for the maintenance of friendly relations among States....⁹

The confluence of international trade and the “digital era” of electronic commerce since the early 1990s prompted UNCITRAL to undertake work aimed at harmonizing global e-Commerce law and reducing the barriers to e-Commerce through several texts, notably its valuable and widely adopted Model Law on Electronic Commerce¹⁰ and its less attractive Model Law on Electronic Signatures (UN, 2001).¹¹ The former, sometimes with modifications, has been adopted by or significantly influenced domestic legislation in Australia, most provinces of Canada, China and Hong Kong, Colombia, Dominican Republic, Ecuador, France, India, Ireland, Jordan, Mauritius, Mexico, New Zealand, Pakistan, Panama, Philippines, South Korea, Singapore, Slovenia, South Africa, Thailand, most UK dependencies, most US states and

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Venezuela. UNCITRAL's new E-Commerce Convention represents another step toward creation of what we here call the broader mosaic and have elsewhere dubbed a "unified field theory" for international trade and global e-Commerce.¹²

UNCITRAL authorized its Working Group on Electronic Commerce to begin development of the E-Commerce Convention early in 2002 and that effort was completed in late 2004.¹³ The E-Commerce Convention is intended to be "enabling" rather than "regulatory": it does not aim to change domestic contract law. It is designed to be implemented in both civil- and common-law systems, by employing vocabulary and concepts acceptable in both. It simply seeks to reduce the barriers to electronic commerce transactions between parties that are located in different States (art. 1) by creating a system of uniform rules that reduce uncertainties about the legality of contracts concluded by electronic means. The Preamble to the E-Commerce Convention states,

Being of the opinion that uniform rules should respect the freedom of parties to choose appropriate media and technologies, taking account of the principles of technological neutrality and functional equivalence, to the extent that the means chosen by the parties comply with the purpose of the relevant rules of law....

The new convention is even more valuable to developing countries than to those in which there is already wide use of ICT for business transactions,¹⁴ because many of the latter have adopted domestic laws enabling e-Commerce transactions that are overlaid on their existing contract and business law. Unlike those of many less developed countries, businesses in the developed countries have well-established systems for international business transactions, which they have been able to adapt readily to cross-border e-Commerce transactions. It remains true, however, that these countries will also benefit from the E-Commerce Convention upon adoption, in that its enabling provisions will increase the legal certainty and thereby reduce some risks associated with international business transactions and, as a result, some of the costs associated with these risks. Businesses in the developed countries frequently require that companies in other countries with which they have business relationships be able to enter ongoing agreements using ICT methods. These factors were important in the preparation of the E-Commerce Convention.

II. Benefits for Adopting Countries

A number of benefits can be attained by States that ratify the E-Commerce Convention. First, for some that have not adopted domestic e-Commerce legislation, the E-Commerce Convention will provide a basis for enabling cross-border business transactions without directly changing domestic legislation though some domestic enactments may be needed in particular countries. For example, Article 8 of the E-Commerce Convention provides, "A communication or a contract shall not be denied validity or enforceability on the sole ground that it is in the form of an electronic communication." If a treaty is ratified and the ratifying country's law is automatically adapted to it, at least these e-Commerce transactions will be recognized.

When the E-Commerce Convention is adopted, the potential for businesses in those countries to engage in international e-Commerce transactions will increase, because parties outside the country will have greater confidence that their contract, although concluded by electronic means, will receive the same recognition as a paper contract. As an example, the growth of global supply-chain networks and the desire of global companies to reduce transaction costs though e-Commerce has enabled businesses in many regions to benefit from global relationships that can drive business growth. A country's adoption of the E-Commerce Convention will help create an environment – or, more correctly, an element of the legal infrastructure – in which developing-country companies can effectively compete for this type of business and other business opportunities that can lead to increased development and trade.

A further benefit of the E-Commerce Convention is the application of its enabling rules to other treaties to which the country is a party. For example, under Article 20, the E-Commerce Convention (if adopted without a contrary declaration) will apply to various UNCITRAL texts, including the extremely important New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards,¹⁵ as shown in Table 1. Articles 20(2) and 21 permit a State also to apply the E-Commerce Convention to any other treaty or convention to which it is or may become a party.

The development of an enhanced legal e-Commerce infrastructure should be undertaken at latest together with the development of the technological infrastructure that can support business development through the use of ICT. Some commentators have argued that a developing country should wait until it has the communications technology that will support e-Commerce before creating domestic e-Commerce laws or participating in international conventions.¹⁶ However, by carefully developing their e-Commerce policies and legislation in advance, many countries may be able to leapfrog the years of confusing court decisions and conflicting legislation that befell those developed countries in which the technology had far exceeded the law's ability to respond quickly to these technological developments.

Table 1: Conventions Listed in Article 20(1)

1. Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York, 10 June 1958)
2. Convention on the Limitation Period in the International Sale of Goods (New York, 14 June 1974)
- 2a. Protocol to the above (Vienna, 11 April 1980)
3. United Nations Convention on Contracts for the International Sale of Goods (Vienna, 11 April 1980)
4. United Nations Convention on the Liability of Operators of Transport Terminals in International Trade (Vienna, 19 April 1991)
5. United Nations Convention on Independent Guarantees and Stand-by Letters of Credit (New York, 11 December 1995)
6. United Nations Convention on the Assignment of Receivables in International Trade (New York, 12 December 2001)

The E-Commerce Convention also takes into account the possibility that technological infrastructures may evolve differently in developing countries than in developed countries. For example, mobile telephone use in many developing countries has rapidly overtaken the older landline telecommunications infrastructure, which never reached most of the territory of many such countries anyway, particularly in quality of service. The emerging trend in this regard is referred to as “m-Commerce.” Deliberations on the E-Commerce Convention took these technological development trends into account in the drafting of such provisions as Articles 6 (location), 7 (information requirements), 9(4) and (5) (form requirements), and 13 (availability of contract terms.).

III. Overview of the E-Commerce Convention’s Provisions

Article 8 is a central provision of the E-Commerce Convention: a communication or contract “shall not be denied validity or enforceability on the sole ground that it is in the form of an electronic communication.” It applies only to international contracts, but it will enable businesses even in those countries that have no specific legislation on e-Commerce to participate in international business electronically. The E-Commerce Convention does not require the use of electronic communications in any circumstances, but an agreement to use such methods can be inferred from the actions of the parties.

From a contract-formation perspective, the E-Commerce Convention emphasizes party autonomy on several levels. In the Preamble, the drafters note that “uniform rules should respect the freedom of parties to choose appropriate media and technologies...” Article 3 on Party Autonomy provides the opportunity for parties to “exclude the application of this Convention” and goes further by allowing the parties to “derogate from or vary the effect of any of its provisions.” Parties to a contract may derogate or vary the E-Commerce Convention’s provisions explicitly or implicitly, for example, by including terms in their agreement that would be inconsistent with the provisions of the E-Commerce Convention.¹⁷ However, parties may not be able to affect treaty law provisions contained in Chapter III or declarations made by ratifying governments.

Article 2 lists several exclusions, such as consumer transactions. The language on this point is similar to and was inspired by Article 3 of the CISG Convention.¹⁸ Article 2 also excludes certain, though not all, types of financial transactions, particularly those that involve highly regulated financial markets with well established systems rules. Finally, certain types of transactions that involve the transfer of rights in goods or other rights are excluded, including “bills of exchange, promissory notes, consignment notes” and others.

Chapter III contains general provisions, including definitions, a guideline for interpretation of the E-Commerce Convention, and consideration of the implications of the parties’ locations (notably, no presumption is created as to a party’s location by the inclusion in its domain name of a country designation). There was considerable discussion regarding the types of disclosure that might be required among the parties to a contract during the formation phase. No specific “information requirements” are included in the E-Commerce Convention, which defaults, in Article 7, to domestic law, by declaring that the E-Commerce Convention does not affect “the application of any rule of law that may require the parties to disclose their identities, places of business ... or relieves a party from the legal consequences of making inaccurate, incomplete or false statements in that regard.”

The primary e-Commerce enabling or operative provisions of the E-Commerce Convention are found in Chapter III, Articles 8 through 14. Article 8 has already been mentioned. Article 9 states that the E-Commerce Convention imposes no form requirements and that where local law requires that a contract be “in writing,” that requirement is met by an electronic communication if “the information contained therein is accessible so as to be usable for subsequent reference.” An electronic signature meets the legal requirement for a signature if the method used (1) can identify the party and also that party’s intention regarding the information contained in the electronic communication and (2) is reliable. This article also specifies how an electronic record can meet the legal requirement that a communication or contract be “made available or retained in its original form....”

In response to the often instantaneous nature of electronic communications and the nature of global ICT networks, Article 10 establishes criteria for determining the time and place of sending and receipt of electronic communications. These default provisions apply only if the parties have not previously agreed on other criteria.

Of particular note is Article 10(2) on the time of receipt of an electronic communication. A major concern raised within the Working Group discussions was the possibility that the increasingly widespread use of filters and other security tools to limit spam and the spread of viruses would “intercept” a legitimate electronic message. To deal with this issue, the E-Commerce Convention creates a presumption that the electronic communication is “capable of being retrieved by the addressee when it reaches the addressee’s electronic address.” Thus, a party might overcome that presumption, in the event of a dispute, by demonstrating that it was not capable of retrieving the message even though the message might have “reached” its address.

Article 12 deals with contract formation through the use of “automated message systems” by one or both parties. The growth of global supply-chain networks that use automated systems for processing orders, and thereby forming contracts, is an example of the need for this Article. Its rationale is that some contract-law regimes may require that formation of a contract involve direct “human” intervention, reducing the value-chain benefits of automated systems. This article, however, reinforces the concept of functional equivalence for electronic communications, by stating that contracts formed through automated systems will “not be denied validity or enforceability on the sole ground that no natural person reviewed or intervened in the individual actions carried out by the automated message systems or the resulting contract.”

Concerns were raised about the parties’ ability, when entering contracts online or otherwise through electronic communications, to access the terms of the contract electronically, which is not ordinarily an issue when parties execute a contract on paper and each has a copy. This concern may become particularly acute with the growing use of mobile communications devices that may be less capable of storing (or even viewing) all of a particular contract’s terms easily. Article 13 recognizes this concern, but does not provide a rule, instead leaving the point to domestic law.

Article 14 deals with the problem of “input errors” made by a “natural person” as when, for example, a party (acting for him or herself or on behalf of a party) intended to contract for 10 items but inadvertently entered 100. In those cases where the seller’s automated system does not provide an opportunity for correction of the error, this Article provides the steps that the party (the buyer) making the input error must take to withdraw the portion of the electronic message in which the error was made. This Article covers only input errors; the “application of any rule of law that may govern the consequences of any error other than” this type of input error is not affected.

Articles 15 through 25 (Chapter IV) of the E-Commerce Convention are “treaty law” provisions. Notable among these are Article 19, allowing States to make declarations on the extent to which it will apply the E-Commerce Convention, and Article 20, which is discussed above in connection with Table 1.

IV. The Broader Mosaic

There are existing and potential linkages between the E-Commerce Convention and, ultimately, transparency, democracy and poverty-alleviation in transition economies and the developing world. These are long-run possibilities, probably not fully achievable in our lifetimes, but some steps can be taken that may move us in those directions. The early steps are part of a broad mosaic (or perhaps a “unified field theory”¹⁹) that can lead to growth and development. The basic idea also intersects with United Nations Millennium Development Goal 8, “Develop a global partnership for development,”²⁰ and in particular, the portion of this Goal that states, “In cooperation with the private sector, make available the benefits of new technologies – especially information and communications technologies.” The E-Commerce Convention is good for the developed countries also, because it is enabling (rather than regulatory) and supports market development, growth and, from a purely legal viewpoint, greater *ex ante* certainty and predictability in cross-border electronic commercial transactions, *i.e.*, it is a good tool for harmonization, particularly in terms of developing global supply-chain networks.

Our “mosaic” is a pattern organized by widening areas or, loosely, circles around an e-Commerce core, “circles” that, if far more uniform than they are in width and composition, might be thought of as concentric. For purposes of this paper, we emphasize just three such circles, but it is easy to imagine several more, as noted below. *At the core* is wide adoption of the new UNCITRAL E-Commerce Convention. There have been extensive discussions over the past ten years of the growing “Digital Divide” between developed countries and the rest of the world, but, in 2006, China has 150 million Internet users, about the same as the 154 million in the United States.²¹ Clearly not all countries are moving as quickly as China, but, just a clearly, Internet usage in the countries of Africa, the Middle East and Latin America/Caribbean is growing at a much faster rate than in the more developed parts of the world (Table 2).

We are speaking here of legal infrastructure, and only of some aspects of that (omitting, for example, reform of telecom regulation in some countries and regions). It is clear also that that the technological infrastructure must be built, although the cost of that is orders of magnitude less than the cost of catching up with West infrastructure in other ways, but this should be, and in fact is being, done simultaneously.

The E-Commerce Convention is neither enough, standing alone, nor likely to be accepted and implemented automatically by developing countries. Developing and transition-economy countries will need to assess how this convention will benefit them and how it should be implemented. Policy considerations are important and should be based on specific

country needs for international commercial development. It's not a "one-size fits all model" and it is not clear that developed country models will always be right, despite suggestions from the OECD that Western best practices be emulated everywhere. It is only step 1, but it is a step that the World Bank, USAID and others can help many to achieve.

Table 2: World Internet Usage and Population Statistics²²

Region	Population in millions (2005)	Percent of world population	Internet users in millions	Users as percent of population	Users as percent of world	Usage growth 2000-2005
Africa	897	14.0%	24	2.7%	2.5%	429.8%
Asia	3,623	56.4%	333	9.2%	34.2%	191.0%
Europe	805	12.5%	285	35.5%	29.3%	171.6%
Middle East	187	2.9%	16	8.6%	1.7%	392.1%
North America	328	5.1%	224	68.2%	23.0%	107.3%
Latin America/Caribbean	547	8.5%	73	13.3%	7.5%	303.8%
Oceania/Australia	33	0.5%	18	52.9%	1.8%	132.2%
World Total	6,420	100.0%	973	15.2%	100.0%	169.5%

In the metaphor of concentric circles, *the second circle* is domestic adoption of the legal infrastructure for e-Commerce. We recommend that all countries adopt the UNCITRAL Model Law on Electronic Commerce²³ or legislation along similar lines. Here again, the analysis of a country's particular commercial development needs might direct the appropriate way and adaptation of the legislation it might adopt based on the Model Law, as in the United States,²⁴ Canada²⁵ and other countries.²⁶

The third circle is reform and modernization of commercial and company law reform. Here, several of the World Bank "Doing Business in 200x" reports²⁷ have described how difficult it is to do business or even to get one started in many developing and transition-economy countries. In order to achieve the advantages of doing business with developed countries – for example, participating in global supply chains – it is reasonable to have a business form that global companies will recognize and a commercial law system (whether civil- or common-law oriented) that will be familiar. This could take business off the gray market and enable opportunities for innovation and entrepreneurship that may be stifled today. In the United States, some relatively high percentage of all innovation since World War II has come from SMEs. Countries such as Korea and Brazil have similar track records and show above average GDP growth, which some attribute to innovation and entrepreneurship. In extractive-industries- and agriculture-dominated developing-country economies, there ought to be benefits from e-Commerce for these industries (for agriculture, success of the Doha Round would also be a key), and the development of new service industries, with SMEs at the lead. Perhaps even micro-business might play a role here.

For the fourth and further circles, consider that, if the basis for this growth is e-Commerce, the concomitant openness of information may also lead to more transparency in government and better corporate governance.²⁸ There will be a major requirement for capacity building efforts to bring people up to speed with the use of the technology, innovation strategies, entrepreneurial approaches and many of the traditional core business disciplines, *i.e.*, an educational component. These may lead to a growing population of individuals who can create new sustainable business opportunities in their countries.

It is essential that this is all happening alongside creation of the technological infrastructure in each country and using a transparent and harmonized legal architecture for international business transactions. The UNCITRAL Secretariat anticipates that its explanatory note on the E-Commerce Convention²⁹ will be a major part of the high-level policy advice to governments on how to do it, but the Secretariat is likely to stay with the legal issues and more is needed on the details of implementation, so that countries can develop a long-term sustainable strategy for their role domestically and in international e-Commerce.

Conclusion

The E-Commerce Convention is not a panacea for all business-growth ills, whether in developed, transition-economy or developing countries, but it is a rather easy step in the creation of a sustainable legal infrastructure for business, as one element in the overall strategy for development and growth. Each country considering ratification of the E-Commerce Convention should examine its particular needs and explore how implementation will best serve its development needs and agenda. Substantial new resource tools that will provide policy guidance and analysis on specific country approaches for developing the legal infrastructure that will enhance e-Commerce capacity building would be particularly helpful for developing and transition-economy governments in this regard. In many countries, development of new domestic e-Commerce legislation, along with modernization of business, company and banking laws, will better support business development.³⁰

Footnotes

- ¹ Convention on the Use of Electronic Communications in International Contracts, annexed to UN G.A. Doc. A/RES/60/21, 23 Nov. 2005 (hereinafter “E-Commerce Convention”), available at daccessdds.un.org/doc/UNDOC/GEN/N05/488/80/PDF/N0548880.pdf?OpenElement.
- ² See Jonathan Coppel, E-Commerce: Impacts and Policy Challenges, OECD Economic Department Working Paper No. 252 at 4 (23 June 2000).
- ³ See Hank Intven, Richard Pfohl, Cheryl Slusarchuk & Barry Sookman, *Legal and Regulatory Aspects of E-commerce and the Internet*, 1 WORLD BANK LEGAL REVIEW: LAW AND JUSTICE FOR DEVELOPMENT 3 (2003).
- ⁴ See UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, E-COMMERCE AND DEVELOPMENT REPORT 2001, U.N. Doc. UNCTAD/SDTE/ECB/1 (2001).
- ⁵ UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW, LEGAL ASPECTS OF ELECTRONIC COMMERCE: EXPLANATORY NOTE ON THE CONVENTION ON THE USE OF ELECTRONIC COMMUNICATIONS IN INTERNATIONAL CONTRACTS, U.N. Doc. A/CN.9/608, available (in four parts) at <http://daccessdds.un.org/doc/UNDOC/GEN/V06/522/06/PDF/V0652206.pdf?OpenElement>, <http://daccessdds.un.org/doc/UNDOC/GEN/V06/522/12/PDF/V0652212.pdf?OpenElement>, <http://daccessdds.un.org/doc/UNDOC/GEN/V06/523/10/PDF/V0652310.pdf?OpenElement> and <http://daccessdds.un.org/doc/UNDOC/GEN/V06/523/16/PDF/V0652316.pdf?OpenElement>.
- ⁶ Peter W. Schroth & William J. Luddy, Jr., *On the Particular Value to Africa and the Developing World of the UN Convention on the Use of Electronic Communications in International Contracts*, 7 PROC. INT’L ACAD. AFR. BUS. & DEV. 136 (2006).
- ⁷ U.N. G.A. Res. 2205 (XXI), 17 Dec. 1966.
- ⁸ See <http://www.uncitral.org/english/commiss/geninfo.htm>.
- ⁹ Resolution adopted by the General Assembly on the report of the Sixth Comm., 56th Sess., Agenda item 161, A/56/588 and Corr.1, 25 Jan. 2002, available at <http://www.uncitral.org/stable/res5679-e.pdf>.
- ¹⁰ Model Law on Electronic Commerce, UN G.A. Doc. A/RES/51/162, 30 January 1997, with additional art. 5 bis adopted by UNCITRAL, June 1998.
- ¹¹ Model Law on Electronic Signatures, UN G.A. Doc. A/RES/56/80, 24 Jan. 2002.
- ¹² By analogy to attempts in particle physics to describe all fundamental forces and the relationships between elementary particles in terms of a single theoretical framework uniting electromagnetism and gravity, space and time. See WERNER HEISENBERG, EINFÜHRUNG IN DIE EINHEITLICHE FELDTHEORIE DER ELEMENTARTEILCHEN (1966), available in English translation as INTRODUCTION TO THE UNIFIED FIELD THEORY OF ELEMENTARY PARTICLES.
- ¹³ UNCITRAL, Report of the Working Group on Electronic Commerce on the Work of its Forty-fourth session, A/CN.9/571 (2004), available at www.uncitral.org/uncitral/en/commission/working_groups/4Electronic_Commerce.html.
- ¹⁴ For further discussion and African examples, see Luddy & Schroth, *supra* note 6.
- ¹⁵ Convention on the Recognition and Enforcement of Foreign Arbitral Awards, 10 June 1958, 21 U.S.T. 2517, TIAS No. 6997, implemented in the United States by 9 U.S.C. §201 *et seq.*
- ¹⁶ E.g., Michael Geist, *Bridging the Digital Divide*, Toronto Star, 19 July 2004, at D02.
- ¹⁷ See Legal aspects of electronic commerce: Explanatory note on the Convention on the Use of Electronic Communications in International Contracts, Note by the Secretariat, Addendum, A/CN.9/608/Add.1 (17 March 2006), para. 46, available at <http://daccessdds.un.org/doc/UNDOC/GEN/V06/522/12/PDF/V0652212.pdf?OpenElement>.
- ¹⁸ United Nations Convention on Contracts for the International Sale of Goods, 10 Apr. 1980, U.N. Doc. A/CONF.97/18, Annex I.
- ¹⁹ See *supra* note 12 and accompanying text.
- ²⁰ See <http://www.un.org/millenniumgoals/#>.
- ²¹ See BBC News, *China & India: Emerging Giants*, http://news.bbc.co.uk/1/hi/in_depth/world/2006/emerging_giants/default.stm (last updated 26 May 2006).
- ²² Information in this table is from Miniwatts International, Ltd., <http://www.internetworldstats.com>.
- ²³ *Supra* note 10.
- ²⁴ Especially the Uniform Electronic Transactions Act, available at <http://www.law.upenn.edu/bll/ulc/fnact99/1990s/ueta99.htm>.
- ²⁵ Especially the Uniform Electronic Commerce Act, available at <http://www.ulcc.ca/en/us/index.cfm?sec=1&sub=1u1>.
- ²⁶ Existing statutes of Mauritius and South Africa, as well as a model law proposed by the Southern African Development Community, are discussed in Schroth & Luddy, *supra* note 6.
- ²⁷ Available at <http://www.doingbusiness.org>.
- ²⁸ See, e.g., Peter W. Schroth & Preeti Sharma, *Transnational Law and Technology as Potential Forces Against Corruption in Africa*, 41 MGT. DEC. 296 (2003).
- ²⁹ *Supra* note 5.
- ³⁰ See WORLD BANK, DOING BUSINESS IN 2006 REPORT (2005), available at <http://www.doingbusiness.org>.