

ARTICLES

**E-COMMERCE IN LATIN AMERICA: LEGAL
AND BUSINESS CHALLENGES FOR
DEVELOPING ENTERPRISE**

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TABLE OF CONTENTS

Introduction.....	860
I. Overview of the Terrain	861
II. Identifying the Challenges.....	866
A. Cultural and Socio-Economic Issues	866
B. Infrastructure Issues	873
1. Telecommunications and access.....	873
a. Costs	873
b. Reliability	876
c. Overcoming access problems	878
2. Monopolies, the government, and privatization	881
C. Logistical Barriers.....	896
1. Distribution and delivery	896
D. Regulatory Barriers: Customs, Tariffs, and Taxation.....	903
E. Security.....	907
III. Legal Challenges	913
A. Formality of the Legal System.....	914
B. Electronic Signature.....	918
C. Authentication.....	922
IV. Existing and Proposed E-Commerce Laws.....	926
V. The Future of E-Commerce in Latin America.....	930

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Conclusions	935
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INTRODUCTION

The Internet provides a level playing field for small companies to compete with their largest global competitors.¹ This potential is particularly true for companies in Latin America² that see the Internet as the means to expand business opportunities across borders in both the business-to-business (“B2B”) and business-to-consumer (“B2C”) sectors.³ Business indicators show that Latin America, with a population of 435.5 million people⁴ rich in language and diverse culture, represents an imposing emerging market of vast opportunity where growing international computer access and increasing consumerism are rapidly converging and propagating.⁵ Yet, the rush by international companies and Latin American start-ups to establish electronic commerce in the region is not without serious pitfalls and obstacles, and growth in this new business frontier has been tempered by Latin America’s traditional lumbering government control, archaic laws, institutionalized corruption, and persistent underdevelopment.

The focus of this article is to identify and discuss the various business and legal challenges investors, entrepreneurs, and established companies must confront and overcome if e-commerce is to take hold throughout the Americas, and examine some of the progress being made. As we will see, there is unlimited potential in the Latin American market if the most stubborn details can be

1. See Onelia Collazo, *E-tailing*, LATINFINANCE, June 1999, at 48 (describing the Internet’s impact on international commerce as having leveled the playing field between large and small firms).

2. Collectively, Latin America comprises the following nineteen countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Jamaica, Mexico, Panama, Paraguay, Peru, Puerto Rico, Trinidad and Tobago, Uruguay, and Venezuela. See PRICEWATERHOUSECOOPERS, CONTRIBUTION OF THE PACKAGED SOFTWARE INDUSTRY TO THE LATIN AMERICAN ECONOMIES 46 (1999) (study commissioned by the Business Software Alliance).

3. According to Lycos CEO Bob Davis, “Latin America is poised to become the next great growth center for Internet services.” Robert Conlin, *Lycos Targets Latin Markets on Two Continents*, E-COMMERCE TIMES, Oct. 19, 1999, at <http://www.ecommercetimes.com/news/articles/991019-7.shtml>.

4. Almost 170 million people (169.8 million), or 39% of Latin Americans reside in Brazil. See eMarketer, THE EGLOBAL REPORT, July 1999, at 172 [hereinafter “eMarketer July 1999”].

5. The following analysts have independently forecasted tremendous growth (albeit in varying degrees) in the Latin American market via reports issued in the press and in industry studies and newsletters: Lehman Brothers, Boston Consulting Group, eMarketer, PriceWaterhouseCoopers, Forrester Research, Gartner Group, Jupiter Communications, and International Data Corporation (IDC).

resolved favorably.

The most pressing challenges and obstacles to e-commerce in Latin America include:

- Overcoming unique cultural and socio-economic legacies
- Cultural peculiarities in consumer habits and customs
- Access limited by poor economic conditions and uncertainty
- Expensive and unreliable telecommunications systems
- Underdeveloped distribution and delivery systems as a barrier to e-commerce
- Cumbersome customs procedures and taxation
- Lack of laws and regulations to stabilize and secure e-commerce
- The elements favorable for pursuing e-commerce in Latin America, however, make the challenges well-worth surmounting. These include:
 - A growing consumer market, particularly for imported items
 - Advances in security for online transactions
 - Regional Internet providers and portals benefiting from significant foreign investment capital
 - A rising middle class that is becoming more computer literate, online savvy, and materialistic
 - Updated and restructured telecommunications systems across Latin America
 - Established .com companies (Terra Networks Group, Yahoo!, and Microsoft) moving aggressively into Latin American markets in anticipation of market stabilization.

I. OVERVIEW OF THE TERRAIN

Latin America is emerging from the centuries-old colonial mercantile and agrarian-based economies endemic to the region.⁶ The last two decades have seen the traditional political structure of absolute control⁷ give ground to a new generation of young, entrepreneurial technocrats and businessmen, trained overseas, indoctrinated in global capitalism, and eager to utilize the vast

6. "In general, economic policies during colonial eras were characterized by heavy mercantilist trade with the colonizers." Mark Baker, *Privatization in the Developing World: Panacea for the Economic Ills of the Third World or Prescription Overused?*, 18 N.Y.L. SCH. J. INT'L & COMP. L. 233, 245 (1999). See also Linda Newson, *The Latin American Colonial Experience*, in LATIN AMERICAN DEVELOPMENT: GEOGRAPHICAL PERSPECTIVES 7 (David Preston ed., 1987).

7. See Saladin Al-Jurf, *Good Governance and Transparency: Their Impact on Development*, 9 TRANSNAT'L L. & CONTEMP. PROBS. 193, 198 (1999) (emphasizing the traditional, culturally-embedded notion that Latin American governments should have absolute authority in political, social, and economic affairs).

natural and human resources of the region.⁸ No longer content merely to follow the old model of centralized and closed business practices, they have aggressively embraced the Internet and other information technologies to compete in the global marketplace.⁹ This “young, wealthy, mobile professional class”¹⁰ clashes with the “old guard” of the professional elite, which remains reluctant to reform and fearful of adapting to a free market economy, technology and the seemingly unfathomable potential of the Internet.¹¹ Most Latin American countries, such as Argentina, Brazil, and Chile, are blessed with a well-educated and growing middle class, which, when combined with a relatively cheap skilled labor force, leaves the region poised to enter an era of unprecedented new prosperity.

But the nations in the region are not without significant contrasts. Argentina, for instance, has shown exceptional initiative, as Argentinians tend to be more open-minded and know how to promote themselves.¹² On the other hand, Brazil, although possessing more money and a larger population than Argentina, has been slow in achieving supremacy in the .com industry because the size of the country and an isolating language barrier have kept Brazilians from looking beyond their nation’s borders.¹³ At least for now, even though these countries are not exactly the exception to the

8. For substantial portraits of some of the players in e-commerce, see *¿Qué significa la vida en la Internet?* REVISTA LATIN TRADE, June 2000, at 64. See also Albert Fishlow, *Leaving History Behind in Latin America*, NEW PERSP. Q., Sept. 22, 1993, at 16; *Las 50 Caras en América Latina de Internet*, I-BIZ: NEGOCIOS EN RED, vol. 1, Apr. 2000, at 25.

9. See generally Thomas Weyr, *Latin Dot-com Markets: Ups and Downs*, DM NEWS, June 12, 2000, supp. at 18; Rebecca Winters, *Joining the Rush to Cash In*, TIME, Int'l Ed., Apr. 3, 2000, at 46 (discussing the impact on the Latin American business world of young entrepreneurs using the Internet); and *Punto.com Inc. Launches Monthly Magazine, Suite of Online Services Covering Latin America's Internet Economy*, BUS. WIRE, July 24, 2000 (quoting Esteban Piedrahita, chief executive officer of Punto.com as saying, “The Internet is revolutionizing the business world in Latin America, and we are offering a roadmap to that revolution . . . by offering comprehensive, pan-regional intelligence on the Latin American economy, we are empowering a new generation of Latin American entrepreneurs.”).

10. *Internet 1: Brick and Mortar 0- Latin American Banks are Losing Their Best Customers to On-line Competitors*, INFOAMERICAS, Apr.-May 2000 [hereinafter *Latin American Banks*], at http://www.infoamericas.com/Tendencias/General/0400/0400_industry_forecast.htm.

11. See *id.* (maintaining that industry leaders have failed to progress due to the arrogance of command-control management, their benightedness about the power of the Internet, and inattention to the needs of their clients).

12. According to Gerardo Waisburg, “there is need for strong ego and strong persuasion, because one has to convert non-believers into believers. [What is needed is] a very successful personality that produces a fate of fulfill[ed] prophesy.” See Rodrigo Lara Serrano, *Muzo: Hay in Argentin en Misopa*, I.BIZ, Apr. 2000, at 53.

13. See *id.* at 54. Apparently, language is Brazil’s biggest obstacle. There are more than 388 million Spanish-speakers in the world. Portuguese is only spoken in Portugal, Brazil, and Macao.

rule, much of Latin America is still struggling to redefine political and economic realities and set new courses for the future. Colombia, for instance, has maintained a strong industrial economy and skilled labor force for generations. Yet, political instability and internal turmoil, drug trafficking and uncontrolled criminality, and institutionalized corruption as high art, have prevented Colombians from moving more quickly into the new technology economy.¹⁴ Colombia is not alone in this respect, and such strife and uncertainty have made Internet and technology investors wary about moving too quickly into a region still struggling to sort out its longstanding and perplexing problems. Recent political and economic events elsewhere in the region have tempered the eagerness of investors to jump into the fray. Ecuador has just taken the unusual step of establishing the U.S. dollar as the nation's official currency, hoping to lower an inflation rate of around 104% per year.¹⁵ Although Ecuador joins ten other nations using the U.S. dollar as the official currency, the move has caused significant upheaval in the retail sector where, due to the lack of coins in U.S. currency, merchants are "rounding off prices at the dollar level—a sore point in a poor country where more than two-thirds of workers earn less than \$30 a month."¹⁶ In Venezuela, the populist Chavez government continues to scare foreign investors with threats to radically reform the banking, financial, and regulatory infrastructure in the name of rooting out corruption.¹⁷

Having said this, however, the demographics in Latin America are encouraging for the growing Internet market. Since the majority of online computer users are wealthy young professionals, one Internet analysis group, InfoAmericas, "estimates that there are about 10 million bankable customers across Latin America in the twenty to thirty-nine age group, who consume an average of \$50,000 per year, of their own money or that of their parents."¹⁸ This group of Latin

14. See generally DAVID BUSHNELL, *THE MAKING OF MODERN COLOMBIA: A NATION IN SPITE OF ITSELF* (1993) (detailing how societal ills have hindered the modernization of Columbia).

15. See *Ecuador Makes Switch to U.S. Currency, Has Trouble Making Change* (Sept. 11, 2000), available at <http://www.cnn.com/2000/WORLD/americas/09/11/ecuador.dollars.ap/> (commenting on public officials' hope that the currency switch will decrease the highest annual inflation rate of all Latin American countries).

16. *Id.* Other Latin American countries moving closer to full adoption of the U.S. dollar are Guatemala, El Salvador, and Nicaragua. Panama has used U.S. currency since 1902. See Will Weissert, *Guatemala Close to Dollarization*, available at <http://www.imadr.org/project/guatemala/news3.html> (visited Apr. 30, 2001).

17. See Juan O. Tamayo, *By Mingling Military and Politics, Is Chavez Eroding Democracy in Venezuela?*, MIAAMI HERALD, Aug. 1, 1999.

18. *Latin American Banks*, *supra* note 10.

American elites surfs online an average of eight hours per week.¹⁹ It is expected that the number of Internet users in Latin America will climb from less than twenty million at present to more than seventy-seven million by 2005.²⁰ However, they “would continue to come from the small upper classes.”²¹ Of businesses moving toward the Internet, an International Data Consulting (“IDC”) survey conducted in the first half of 2000 indicates that only ten percent of about 5000 businesses surveyed are selling online and twenty-five percent are buying online in business-to-business transactions.²² Still, “[a]most seventy percent of the businesses not presently engaged in ecommerce buying or selling indicated they expected to be doing so by yearend 2000.”²³

Sales in software throughout Latin America, likewise provide an indication of what is to come for e-commerce enterprise in the region. In 1998, according to the Business Software Alliance,²⁴ sales of software topped \$3.54 billion (Brazil represented \$1.76 billion of the total), making Latin America second only to Asia in software sales.²⁵ There is every reason to assume e-commerce will follow a similar path. In fact, industry projections are that while e-commerce in Latin America was about \$1 billion in 2000, sales should reach \$10.7 billion by 2006 as the number of Internet users in the region greatly increases.²⁶

19. See Tom Stein, *Microsoft Hablara Espanol*, S.F. CHRON., Oct. 19, 1999, at C1.

20. See Daniel Helft, *Wish on a Start*, INDUSTRY STANDARD, June 18, 2001 (quoting a report issued by Jupiter Media Metrix).

21. Elmer Lenzen, *Internet in Latin America: Hopes and Obstacles*, INTERASIA, at http://www.interasia.org/vietnam/hanoi_lenzen_3.html (last visited Nov. 22, 2000).

22. See *Many Latin American Enterprises Poised for eBusiness Transformation*, at <http://www.preneswire.com/gh/cnoc/comp/113987.html> (visited Apr. 20, 2000). The survey was conducted by IDC's Latin America Technology Integration Panel, which interviewed approximately 500 companies in Argentina, Brazil, and Mexico.

23. *Id.*

24. Since 1988, the Business Software Alliance (“BSA”) has been the voice of the world's leading software developers before governments and with consumers in the international marketplace. Its members represent the fastest growing industry in the world. BSA educates computer users on software copyrights, advocates public policy that fosters innovation and expands trade opportunities, and fights software piracy. See Business Software Alliance, *The Voice of the Industry*, at <http://www.bsa.org/intnatl/about.phtml> (last visited Nov. 19, 2000).

25. See George Leopold, *Racks up \$3.5B in Software Sales: E-commerce to Drive Growth*, ELECTRONIC ENGINEERING TIMES, Oct. 11, 1999, available at 1999 WL 21275317.

26. See Daniel Helft, *E-commerce Pullback in LatAm*, INDUSTRY STANDARD.COM, May 29, 2001 (quoting a report issued by Jupiter Media Matrix). Figures indicated the average online (B2B) purchase is between \$1500 and \$3000, while the average (B2C) purchase is under \$100. See *Latin America B2B E-Commerce—A Promising Future*, InfoAmericas, Mar. 2000, at http://www.infoamericas.com/OnLineLibrary/market_report_back_issues/0300/latin_america_b2b_ecommerce.htm [hereinafter *A Promising Future*] (providing a comparison of B2B and B2C commerce in Latin

As such, the big players in the computer and Internet sector have already established joint venture beachheads in Latin America. With the intention of taking market share from an early start-up Latin American tiger, New York-based StarMedia, Microsoft has formed an online services company with Mexico's largest telecommunications company, Telmex, with "plans to buy access providers throughout Latin America that can offer local service to users in countries outside Mexico."²⁷ After acquiring the U.S.-based Internet search engine company, Lycos, the Spanish Internet service provider Terra Networks Group has been aggressively moving into Latin America during the last year, acquiring local portals and Internet providers and establishing new services in fifteen Spanish and Portuguese-speaking nations.²⁸ At the same time, America Online ("AOL"), Yahoo!, and other Internet companies have set up similar portals for expansion into the region.²⁹

Analysts identify Brazil, given its booming economy, as holding the most promise for expansion of Internet commerce in Latin America. The country's human resources and a high standard of living have combined to create explosive growth in Internet services in Brazil. The Yankee Group, a technology consulting firm based in Boston, Massachusetts, forecasts that Internet users in Brazil will have increased at a compound annual growth rate ("CAGR") of 23% between the 2000-2006 period to almost 42.3 million, "almost three times the expected number for year-end 2001."³⁰ Household users will grow at a rate of about 20.8%, corporate users at about 22.8%, and academic users at about 27.0%.³¹ Growth in the Brazilian market is due to a number of factors, particularly from cheaper computers entering the market (along with more affordable financing plans),

America).

27. Elinor Abreu, *Hola, Microsoft*, THE STANDARD, Oct. 18, 1999, available at <http://www.thestandard.com/article.html> (last visited Nov. 22, 2000). The new portal "will have offices in Argentina, Chile, Colombia, Central America, Mexico, Venezuela, and the United States." *Id.* See also *Telmex and Microsoft Join to Create Region's Leading Spanish-language Internet Portal*, EDGE: WORK-GROUP COMPUTING REP., Oct. 25, 1999, available at 1999 WL 8114178 [hereinafter *Telmex and Microsoft Join*].

28. Terra operations are presently in Argentina, Brazil, Chile, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Peru, Spain, and Uruguay. See *Telefonica SA-Interim Results—Part 2*, REG. NEWS SERV., Sept. 6, 2000, available in LEXIS.

29. See Tom Stein, *Microsoft Hablara Espanol*, S.F. CHRON., Oct. 19, 1999, at C1 (comparing Microsoft's Latin American portal to those of its rivals, AOL and Yahoo).

30. See *The Yankee Group Releases Extended Internet User and Subscriber Forecast for Brazil*, BUSINESS WIRE, July 10, 2001 (quoting from a report titled "A Second Wave: The Brazilian Internet User Forecast").

31. See *id.*

lower fees for Internet access,³² cable networking, and wireless messaging technology,³³ now entering the marketplace.³⁴ Other factors include the growth of Internet services in the private business sector, the opening of Internet cafes and private booths³⁵ as gathering places for Internet users to connect to the world, and the wiring and provisioning of educational institutions where students have access to Internet services otherwise unaffordable at home. It should be noted, however, that even with such impressive growth, the Internet and e-commerce are still, at least for now, at the mercy of an antiquated and costly telecommunications system.³⁶ Moreover, the disparities in income distribution across the region mean that “only about 10% to 15% of the population has the resources to become active Internet users and online buyers.”³⁷

II. IDENTIFYING THE CHALLENGES

A. Cultural and Socio-Economic Issues

E-business players must overcome unique cultural, socio-economic and linguistic challenges when moving into Latin America. Despite what many people wrongly assume, Latin America is not a single entity. It consists of independent countries with complex and diverse geography, and a series of poorly connected cities that lack access to navigable waterways, ports, and sophisticated air transport hubs.³⁸

32. See *supra* note 30; see also Patricia Howlett, *Latin American E-commerce: Get Online or Perish*, IDG NEWS SERV., LATIN AM. BUREAU, June 7, 1999.

33. For example, the Wireless Internet Transaction System (WITS), a new e-commerce mobile-noticing technology, will allow both brick and mortar as well as online retailers “to communicate with their customers, regardless of their physical location, and conduct a mobile commerce transaction in the brick and mortar environment.” *Strio Unveils Interactive Demo for Mobile Commerce*, PR NEWSWIRE, July 20, 2000.

34. See Howlett, *supra* note 32.

35. See *Hard Facts and Hopeful Estimates, Special Reports: The Internet in Latin America: Monitoring the Boom*, LATIN AM. NEWSLS., Apr. 2000, at 4 [hereinafter *Hard Facts and Hopeful Estimates*] (tracking development and prospects for Internet industry in Latin America).

36. In the short time from when this statement is written to the time this Article will be published, significant strides will have been made in overcoming many access issues.

37. *eMarketer*, ELATIN AM. REP., at http://www.emarketer.com/estats/sell_elamer.html (last visited Nov. 14, 2000).

38. In Bolivia, for instance, “around 40,000 km of road exists, but only 5.5% is paved and only 20% can be classed as all-weather road.” *Bolivia: Country Profile*, AMERICAS REVIEW WORLD OF INFORMATION, Sept. 4, 2000, at 9. While the Pan-America highway passes through Bolivia between Argentina and Peru, “garage and petrol services are sparse outside the main centers.” *Id.* Nicaragua has undertaken ambitious road construction projects totaling more than \$290 million with assistance from the Inter-American Development Bank, the World Bank, Venezuela, Denmark,

These countries contain non-homogenous markets that, despite sharing a common language (with the exception of Brazil), differ economically, politically, culturally, technologically, and demographically.³⁹ As for language, it is somewhat simplistic to assume that the Spanish spoken throughout Latin America is the same, or that one dialect and one form of slang exists throughout the region.⁴⁰ One idiom of Spanish does not bridge seventeen different countries,⁴¹ as words change meaning from region to region and can pose problems for an e-commerce business marketing itself throughout Latin America.⁴² Companies that wish to succeed in the continent run a fatal risk if they rely on the idea that a “single language could bridge seventeen different Spanish-speaking countries” and the same managerial and marketing strategies will apply across borders.⁴³ Indeed, the region’s “diverse cultures and

and the European Union. Nicaragua is also upgrading its air and maritime shipping infrastructure. See *Transportation Overview*, CARIBBEAN UPDATE, Feb. 1, 1998; see also Paul Constance, *Digital Trade Barriers*, IDBAMERICA, Jan.-Feb. 1999, at 23, available at <http://www.iadb.org/exr/IDB/stories/1999/eng/e299i.htm> (last visited Nov. 21, 2000) (discussing logistics of communication between commercial centers in Latin America).

39.

Most U.S. citizens seem to believe that Latin America is homogeneous—similar in origin, culture, politics, history, and language. Contrary to this popular belief, Latin America is probably one of the most diverse of all continents. Several languages are spoken in Latin America, including Spanish, Portuguese, French, Maya, Quechua, Aymara, and numerous other Indian dialects. Furthermore, Latin America has four major cultures, “the Hispanic, French, West Indian, and Northern European,” and within these four major cultures there exist numerous sub-cultures. In addition, Latin America also has several indigenous groups such as the Aztec, Araucanian, Inca, and Mayan Indians. Besides the cultural and linguistic differences, Latin America also has great diversity in geography, attitudes politics and history. Therefore, although most U.S. citizens believe that Latin America is dominated by the Hispanic culture, one must acknowledge the existence of other major cultures in the region in order to appreciate its diversity.

Mark B. Baker, *Integration of the Americas: A Latin Renaissance or a Prescription for Disaster?*, 11 TEMP. INT’L & COMP. L.J. 309, 311-12 (1997).

40. There are at least nineteen Spanish dialects. See Alexandre Rainof, *How Best to Use an Interpreter in Court*, 55 CAL. ST. B.J. 196 (1980).

41. See *Consumer E-commerce in Latin America—Where Is the End of the Rainbow?*, INFOAMERICAS, at http://infoamericas.com/tendencias/General/0200/consumer_ecommerce.htm (last visited Nov. 14, 2000) [hereinafter *End of the Rainbow*] (describing eight factors that will determine the success of e-commerce in Latin America).

42. Many rely on the idea that a “single language could bridge all the Spanish-speaking countries” in Latin America. See *id.* (noting that Starmedia and Yahoo incorrectly assumed that one, single-language web portal could successfully serve the entire region).

43. See *id.* (explaining that Starmedia and Yahoo initially had a regional strategy for Latin American marketing, but resorted to country-specific strategies when consumers rejected their original scheme).

languages require local, tailored marketing efforts.”⁴⁴ To illustrate, a Chilean fast-food chain expanded to Argentina offering to the Argentine market what had been successful in Chile. The company targeted 80% of sales in pork sandwiches to the Argentine market. The offer, however failed to match the local taste; Argentinians prefer beef. In order to survive and meet its quota, the company “totally transformed not only its products, but also its marketing and franchise policies.”⁴⁵ Today 80% of the chain’s sales in the Argentine market are beef, 15% are chicken, and only 5% are pork.⁴⁶

In the e-commerce marketplace, the Argentine Internet portal, El Sitio,⁴⁷ has attempted to create a regional content by employing some 80 journalists throughout Latin America to provide local input and avoid a hybrid Spanish approach.⁴⁸ Similarly, Yahoo! and StarMedia changed to a country-specific approach when consumers rejected their cross-border strategies. Both companies opened local offices with local managers to provide specialized content.⁴⁹ According to an executive at one Mexican Internet start-up, “[l]ocal content and local personalization are key to domestic growth of the Net. We do not believe in presenting a U.S.-centric or European version of the Net to Latin American users.”⁵⁰ The U.S. and European companies moving into the region are aware of these challenges and are entering into ventures with regional media companies, which can help bridge the content gap. Such is the case with AOL’s⁵¹ partnership with the Cisneros Group,⁵² one of the largest media conglomerates in Latin

44. eMarketer July 1999, *supra* note 4, at 176.

45. See Gustavo Stoke, *Adaptarse o morir*, AM. ECONOMIA, Jan. 28, 1999, at 47.

46. See *id.* at 47.

47. See *Las 50 Casos en América Latina de Internet*, I-BIZ: NEGOCIOS EN RED, vol. 1, Apr. 2000, at 36 (giving a profile on the company’s founder and CEO, Roberto Cibrián Campoy).

48. See Robert Conlin, *Latin American Portal Shifts Into High Gear*, E-COMMERCE TIMES, at <http://www.ecommercetimes.com/news/articles/990729-1.shtml> (last visited Nov. 14, 2000) (describing El Sitio’s plans to expand throughout Latin America).

49. See *End of the Rainbow*, *supra* note 41 (detailing switch from regional to country-specific marketing strategy).

50. *Latin America Will Be the World’s Fastest Growing Regional Internet Market*, TELEPOLIS, at <http://www.heise.de/tp/english/inhalt/co/5997/1.html> (last visited Nov. 14, 2000) (predicting that the base of Internet users in Latin America will grow faster than in any other region in the world).

51. America Online Inc. is the biggest Internet provider in the world. See Isabel Darrigrandi & Pablo Bachelet, *Terremoto en Internet*, AM. ECONOMIA, Jan. 28, 1999, at 20.

52. The Cisneros Group is a Venezuelan conglomerate headed by Gustavo Cisneros. It is one of the largest conglomerates in the region, with interests in Chile, Colombia, the United States, and Venezuela. See Darrigrandi, *supra* note 51, at 20; see also Samuel Silva, *América Latina Got Mail!*, AM. ECONOMIA, Jan. 28, 1999, at 24.

America.⁵³ Likewise, Hewlett-Packard teamed with StarMedia, which claims to offer “Latin Americans, Hispanics in the United States and residents of Spain and Portugal a pan-regional online community, including Spanish and Portuguese content tailored for regional dialects and local cultural norms.”⁵⁴

Another hurdle facing e-commerce businesses is how to approach customer service and advertising, especially in a B2C environment. In e-commerce, technology is essential to the transaction; a customer sees the products on a screen prior to purchasing.⁵⁵ In Latin America, however, where there is a “huge and cheap labor supply and disparate social castes,”⁵⁶ the challenge will be breaking traditional “customer service expectations”⁵⁷ of the well-heeled elite, accustomed to being waited upon “hand and foot.”⁵⁸

Generally, Latin Americans prefer to buy products at the store, where they can personally inspect them.⁵⁹ A JP Morgan report notes that, “many upper-class shoppers (who would have access to the Internet) prefer the service and attention that a personal visit affords.”⁶⁰ Chileans, like many Latin Americans, “prefer to go to the malls where they can meet with friends, enjoy their families, eat, and window shop.”⁶¹ Latin America never has had a “catalog culture” as exists in the United States.⁶² Indeed, the tactile pleasure of sampling merchandise and negotiating a price is an important component of the socio-economic fabric.⁶³ “For the most part, Latinos like the idea

53. See Darrigrandi, *supra* note 51, at 20. One of the biggest challenges is for a Spanish-language e-commerce entity to have Brazilian content.

54. Mary Hillebrand, *HP Puts E-Commerce to Work in Latin America*, E-COMMERCE TIMES, at <http://www.ecommercetimes.com/news/articles/990910-5.shtml> (last visited Nov. 14, 2000).

55. See *End of the Rainbow*, *supra* note 41 (detailing the mechanics of e-commerce).

56. *Id.* (describing the effect of a large labor supply on e-commerce).

57. *Id.*

58. See *id.* (contrasting the extremely high customer service expectations of the upper class with the inability of e-commerce to provide that level of service).

59. See *The Latin American Gold Rush: Will the Internet Pan Out? Many Problems Block the Way to Riches*, at <http://www.imakenews.com/texec/e-article000004782.cfm> (last visited Nov. 17, 2000) [hereinafter *Latin American Gold Rush*] (discussing challenges posed by tradition and habit to Internet retailer’s increasing penetration of Latin America).

60. “A social barrier is the idiosyncrasy of middle class people, who generally prefer to go shopping in real shops to sitting in front of a computer purchasing via e-commerce.” O. Becerril, *Mexico*, in *General Questionnaire*, 17 ARIZ. J. INT’L & COMP. L. 23, 100-01 (2000).

61. J. Otero, *Chile*, in *General Questionnaire*, 17 ARIZ. J. INT’L & COMP. L. 23, 95 (2000).

62. See *Latin American Gold Rush*, *supra* note 59 (contrasting the high volume of catalog shopping in the United States with scant Latin American retail catalog sales).

63. See Howard Buck, *E-Commerce Promises Risks and Rewards*, COLUMBIAN, Dec. 1, 1999, at C1 (quoting Alfredo Barriga, a Chilean e-commerce consultant). See also

of personal relationships and buying goods from people they know.”⁶⁴ Moreover, the loyalty of sophisticated Latin Americans to brand names, and a preference for buying brand names, presents a significant obstacle to companies that will rely only on the Internet to sell goods and otherwise have no traditional “brick and mortar” market identity.⁶⁵ This may not be a concern for a book dealer or music distributor.⁶⁶ Yet, businesses like Spiegel or Victoria’s Secret, which have expanded into online catalog retailing, might encounter difficulties in promoting their merchandise over a chic local boutique in one of Latin America’s trendy malls, where being seen in the boutique is as important (if not more so) to shoppers as what is bought.

In addition, much of the food and household shopping is a responsibility of housekeepers,⁶⁷ who might not have the know-how or authority to shop online for household goods and foodstuffs.⁶⁸ Studies show that the computer per household ratio remains low in Latin America, with online buying limited to just 16% of Latin American Internet users, compared to about 34% in the United States.⁶⁹ Still, purchases from 161 leading e-commerce retailers in Latin America in 2000 reached \$1.1 billion, reflecting a 107% growth rate from the prior year.⁷⁰

However, the existing difficulty in a B2C setting may not be present in the B2B arena.⁷¹ Many companies will be more readily converted to on-line purchasing because they have been accustomed to purchasing products through industry catalogs and regional sales

Latin American Gold Rush, *supra* note 59 (discussing Latin Americans’ culturally ingrained preference for in-person shopping).

64. Stein, *supra* note 19 (quoting Darlene Rios Drapkin, a business assistance manager at the Spanish Speaking Unity Council).

65. See eMarketer July 1999, *supra* note 4, at 172.

66. The products most commonly purchased on-line in Latin America are music, books, PC hardware, travel and software. See *End of the Rainbow*, *supra* note 41.

67. See Collazo, *supra* note 1 (opining that the wealthy elite may shun e-commerce indirectly by having servants, who are not technologically savvy, shop for them).

68. See generally *General Questionnaire*, 17 ARIZ. J. INT’L & COMP. L. 90-104 (2000) [hereinafter *General Questionnaire*]. The purchase of groceries is the exception to Latin America’s general tendency to follow U.S. patterns of purchasing certain types of goods and services online. *Id.* at 103. However, in 1999 Latin America still managed to purchase \$31 million in online retail groceries. *Id.*

69. See Collazo, *supra* note 1 (identifying the lack of household computers in Latin America as a chief obstacle to increased online retail sales).

70. IDC *Latin America’s Surveyed Web Pioneers Will Reach U.S.\$6.9 Million in Online Sales per Company in 2000*, PR NEWSWIRE, Dec. 7, 2000.

71. See *Latin America B2B E-Commerce—A Promising Future*, TENDENCIAS, Mar. 2000, at 1 (presenting the assessment that Latin American B2B e-commerce faces less problems than B2C e-commerce), available at http://www.infoamericas.com/Tendencias/market_report_archive.htm.

representatives.⁷²

Another cultural and socio-economic hindrance to e-commerce is payment. In North America and Europe, the credit card is the primary method for conducting transactions. This is not so in Latin America, where payments are usually made in cash. If sales are made via credit card, payments are normally face-to-face transactions. More significantly, unlike in the United States where 65% of households have a credit card, only “14% of households in the combined markets of Mexico, Brazil and Argentina have a credit card.”⁷³ Obtaining and using a credit card in Latin America is still very much a luxury of the wealthy.⁷⁴ “The low penetration of credit cards in Latin America stems both from a lack of collateral by consumers and from a low appetite for risk among debt-ridden (bank) card issuers.”⁷⁵ Only 27% of Argentinians and 21% of Mexicans possess credit cards,⁷⁶ and they do not necessarily favor them for making purchases. Latin Americans prefer to pay in cash rather than using credit cards because credit card interest rates are quite high, as much as 40% in Brazil and Mexico⁷⁷—forcing cardholders to use them judiciously. “This is a significant deterrent, since ultimately the ability to pay online is a central function of e-commerce.”⁷⁸ Uruguay⁷⁹ has the highest level of credit usage, at 33% of commercial transactions, while most other major countries in the region are below 20% (Brazil at 18%, Mexico at 14%, Colombia at 13%, and Venezuela at 12%).⁸⁰ Risk aversion by the bank industry in the region also accounts for low credit card penetration, a reaction to the liquidity crush banks suffered during the economic crises in Mexico, Brazil and Argentina in the early 1990s when interest rates rose and consumers faced huge credit card

72. See *id.* (listing characteristics that make an industry ready to switch to e-procurement).

73. *End of the Rainbow*, *supra* note 41 (assessing the level of credit card use in Latin America).

74. See Vanyi-Robin, *U.S.A.*, in *General Questionnaire*, 17 ARIZ. J. INT’L & COMP. L. 23, 102 (2000) (discussing how the limited availability of credit cards and wealthy people who can afford to utilize them seriously impedes Latin American e-commerce).

75. *End of the Rainbow*, *supra* note 41.

76. See Vanyi-Robin, *supra* note 74, at 102-03 (listing credit card penetration rates of Argentina and Mexico specifically, while stating that penetration rates elsewhere in Latin America are below 15%).

77. See Collazo, *supra* note 1, at 50.

78. Vanyi-Robin, *supra* note 74, at 102-03. “However, research suggests that security is no more of a deterrent to online spending in Latin America than in more developed markets such as in the United States.” *Id.*

79. *But see* Jon Weisman, *Latin American E-Commerce Still Facing Hurdles*, E-COMMERCE TIMES, Aug. 24, 2000, at <http://www.ecommercetimes.com/news> (stating that Argentina’s 30% credit card penetration level is Latin America’s highest).

80. See eMarketer July 1999, *supra* note 4, at 177.

bills.⁸¹ Compounding the crisis, the banks were also hit with numerous bad loans and constrained by laws that “restrict banks’ ability to repossess assets or even re-call loans.”⁸²

Another problem for Latin American e-commerce start-ups is that much of the money made through electronic transactions in Latin America is leaving the region.⁸³ According to IDC research, “75% of the purchases made by Latin users are made outside the region, going to [sites in the United States] to make their e-commerce purchases,” often for items that are hard to find in Latin America.⁸⁴ Latin American e-commerce start-ups, however, are picking up many cues from studying the customer service tactics of companies in the United States.⁸⁵ The Argentine bookstore, Librerias Yenny, offers services otherwise unavailable in its long-established “brick and mortar” locations, such as customized customer reviews of books tailored to the customer’s interests or favorite authors.⁸⁶ Many Latin American businesses looking to expand into Internet commerce are pragmatic enough to realize that if they can wait for the telecommunications problems to be resolved, their businesses will succeed.⁸⁷

81. See *End of the Rainbow*, *supra* note 41 (stating historical reasons for some Latin American banks’ risk-aversion). In order to overcome the credit card barrier and promote e-commerce, there is a pilot project in Argentina, Brazil and Mexico. These countries are using “smart card money- programmable chips that can hold any quantity of currency.” These cards are sold at any store and they use the same technology as the one used for making calls on pay phones. Each card has a “scratch and see PIN number that could be used for on-line purchasing.” *Id.*

82. *Id.* Domestic banks in Argentina and Mexico “have been forced to take on foreign investors or sell out right to government liquidators or to foreign banks. In Brazil the banking industry has reacted by consolidating from more than 120 players to fewer than 90.” *Id.*

83. See Collazo, *supra* note 1, at 50 (lamenting that the majority of revenues derived from Latin American e-commerce lands in the hands of non-Latin American sites).

84. *Id.*

85. See *The Ups and Downs of Cyber Business*, LATINFINANCE, June 1999, at 51, 56 (citing Annika Alford’s assertion that Latin American e-commerce sites can rival United States competitors like Amazon.com by providing the same services without high shipping and customs charges).

86. See Collazo, *supra* note 1, at 48-49 (highlighting various Latin American companies’ methods for successfully marketing to online customers).

87. See Stein, *supra* note 19 (noting that Microsoft views e-commerce opportunities in Latin America with great optimism despite the existence of serious telecommunication barriers).

B. Infrastructure Issues

1. Telecommunications and access

a. Costs

Although the potential for explosive growth exists in Latin America, the Internet has been slow to expand into the region's consumer arena.⁸⁸ "Only 4.8 million Latinos, or 4% of all Internet users, logged on" in 1998, and Latin America generated only \$167 million in Internet sales.⁸⁹ At present, only about 10% of Latin Americans have telephones⁹⁰ (many Latin Americans have neither phone lines nor electricity), and even fewer, about 5% of households, own a computer.⁹¹ Furthermore, computers are prohibitively expensive for the middle class, and considered a luxury affordable only by those who have disposable income.⁹² A well-equipped computer can "cost half of an average worker's yearly pay."⁹³ However, that is not to imply that computers are not being purchased.⁹⁴ In fact, according to a survey conducted by the Yankee Group, "The computer has superseded the television as the second most desired item on consumer shopping lists in Brazil (autos are number one)."⁹⁵ An IDC report issued in February of 1999 indicated the entry of low cost systems into the Latin American market has begun to have an impact, with Brazil and Argentina leading the way in purchasing.⁹⁶ "According to IDC data, the average cost of a desktop system in Latin America was down to \$1340 in Q4 1998 versus roughly \$1500 at the beginning of the year, and over \$1700

88. See *id.* (indicating that Latin America has yet to realize its enormous e-commerce potential).

89. *Id.* (citing a study by International Data Corporation).

90. See *id.* (citing the fact that only 1 in 10 Latinos has a phone line as one of the biggest obstacles to e-commerce in that region).

91. According to Jupiter Media Metrix, at the same time, 12% of households own mobile phones, and "by 2005 39% of the population will have cell phones, while only 13% will have PCs." See Daniel Helft, *Wish on a Star*, INDUSTRY STANDARD, June 18, 2001.

92. See Mike Francis, *E-commerce*, LATIN AMERICA WEBSITE PROJECT, last updated Feb. 29, 2000, at http://www.intl.pdx.edu/latin/economy/ecom_ec.html (concluding that Latin American e-consumers, unlike the majority of Latin Americans, have ample disposable income).

93. Collazo, *supra* note 1, at 50 (citing a report by JP Morgan).

94. See, e.g., *Latin America Personal Computer Market Meets Forecast Despite Obstacles*, According to IDC, Feb. 10, 1999 [hereinafter *Latin America Personal Computer Market*], at <http://www.idc.com/Data/LatinAmerica/Content/LA021099PR.htm> (noting that 1998 personal computer sales to Latin America were higher than predicted).

95. eMarketer July 1999, *supra* note 4, at 185 (citing the Yankee Group report).

96. See *Latin America Personal Computer Market*, *supra* note 94 (assessing reasons for better than expected personal computer sales).

during 1997.”⁹⁷ In 1999, sales of personal computers in Latin America topped 5.9 million units, “a value of \$7.39 billion for the year.”⁹⁸ However, even if one can acquire a computer,⁹⁹ consumers in Latin America cannot upgrade their computers at the same rate as consumers in the United States or Europe, and the cost to add peripherals and upgrade is still quite high and technical support is not very sophisticated or readily available.¹⁰⁰ Furthermore, “only 20% of the PCs in the region are connected to the Internet.”¹⁰¹ Of those Latin Americans connected to the Internet in 1999, Brazil had 46.3% of the share,¹⁰² with the remaining percentages as follows: Mexico, 10.8; Colombia, 7.8; Argentina, 6.8; Chile, 2.7; and Others, 20.8.¹⁰³ One solution, notes one Internet developer, is “to develop sophisticated products that run on the simplest hardware and that can work in even the most undeveloped markets.”¹⁰⁴

Latin Americans pay some of the highest fees in the world for logging onto the Internet.¹⁰⁵ Currently, the cost to access the Internet is nearly ten times the access costs in the United States¹⁰⁶ because local calls throughout Latin America are charged by the minute—making Internet browsing prohibitively expensive, even for the affluent.¹⁰⁷ Many analysts agree that “[b]asic telephone costs pose the single largest barrier to growth in Internet usage in” the region,¹⁰⁸ with users spending an average of \$53 a month on service fees and

97. *Id.*

98. Sherman Fridman, *Californians' Online Spending Highest in U.S.*, E-COMMERCE TIMES, Feb. 25, 2000, at <http://www.ecommercetimes.com/news> (reporting statistics generated from research by the International Data Corporation on the growth of the personal computer market in Latin America).

99. See *Latin America Personal Computer Market*, *supra* note 94 (reporting 4.16 million personal computers sold in 1998, representing a 12% improvement from 1997).

100. See Ken Warn, *Internet: Well Placed to Lead the Latest Revolution*, FIN. TIMES SURVEY, Dec. 15, 1999, at <http://www.ft.com/ftsurveys/country/scaf82.htm> (noting that one of the drawbacks of Argentine companies is their inability to upgrade their computers as quickly as their United States counterparts).

101. See *Foreword, Technological Edge Supplement*, LATINFINANCE, Sept. 1999, at 5 (describing obstacles to e-commerce growth in Latin America).

102. See *Hard Facts and Hopeful Estimates*, *supra* note 35.

103. See *id.*

104. Warn, *supra* note 100 (quoting Mookie Tannenbaum, development manager for United Sites of America).

105. See Weisman, *supra* note 79 (noting the prohibitive cost of Internet access in Latin America).

106. See Stein, *supra* note 19 (attributing high access costs to inadequate telecommunications networks in Latin America).

107. See Constance, *supra* note 38 (concluding that Latin American e-consumers pay more than their United States counterparts to shop online because most Latin American phone companies charge by the minute for local phone calls).

108. *Id.* (quoting an IDC Latin America report surveying Latin American countries).

local phone charges¹⁰⁹ versus an average of \$20 per month in the United States.¹¹⁰ The cost of using the Internet is prohibitively high due to two unavoidable fees incurred by the user: (1) an access and monthly rate to an Internet Service Provider (ISP), and (2) an assessment fee from the local telephone company for a use-per-minute charge during the connection.¹¹¹ This practice translates to an average of \$60 monthly Internet access costs in Argentina,¹¹² and about \$52.71 for the rest of Latin America, with the telephone connection responsible for about half the cost.¹¹³

Some ISPs have begun offering free access,¹¹⁴ but users still must pay a per minute charge,¹¹⁵ something that can become quite costly when downloading information.¹¹⁶ One project, Red Alternativa S.A., funded in large measure by George Soros, will “become a full service telecommunications provider, including developing its free Internet service.”¹¹⁷ The move is not exactly altruistic, however. The Soros hedge fund backing the project, Quantum Dolphin PLC,¹¹⁸ plans to use Red Alternativa, S.A. in part to attract potential customers to various Quantum Dolphin ventures, including CreditCompany.com, an online loan company; altovinvest.com, a personal finance site; and altocity.com, an online retailer.¹¹⁹

One government taking the lead in free access to online services is Costa Rica, which last June established free email access for all 3.5 million citizens.¹²⁰ The pilot project, named Punto.com,¹²¹ is being

109. See Robert Collier, *After a Slow Start, Internet Use Growing Fast in Latin America*, SAN FRANCISCO CHRON., Sept. 27, 1999, at A17.

110. See Constance, *supra* note 38 (contrasting Internet access costs in Latin America and the United States).

111. See Otero, *supra* note 61, at 96 (delineating the cost of Internet access in Latin American countries using Chile as an example).

112. But see Weisman, *supra* note 79 (examining Argentina as an example of Latin America's prohibitive Internet access costs).

113. See eMarketer, THE EGLOBAL REP., Mar. 2000, at 227 [hereinafter “eMarketer March 2000”].

114. See Constance, *supra* note 38 (stating that Terra Networks, the Internet branch of Spanish telecommunications company Telfonica, has launched free ISP access in Brazil and StarMedia Network has launched free ISP access throughout Latin America).

115. See *id.* (explaining that unlike the low flat rate for an Internet connection in the United States, most Latin American countries charge by the minute for an Internet connection).

116. See eMarketer March 2000, *supra* note 113, at 227.

117. Red Alternativa was “established a year ago by Argentine entrepreneur Maximiliano Fernández as a long-distance telephone carrier service for small business. Since then, it has built up a portfolio of 1,300 customers in five cities.” *Free Internet Access Provider Backed Through Soros Fund*, LATIN AM. PRIVATE EQUITY ANALYST, Mar. 2000, at 7 [hereinafter “Private Equity Analyst”].

118. This fund is valued at more than \$300 million. See *id.*

119. See *id.*

120. See *Costa Rica Offers Free Email to all Residents*, WORLD ONLINE CENTERFRAME,

run by the postal service and a state-run entity called Radiografica Costarricense (Racsa).¹²² As part of the program, citizens will be able to access public terminals installed in public buildings and institutions for those who do not own their own computers.¹²³ In addition, the Costa Rica's postal service has contracted "to extend Punto.com to the rest of the countries of Central America and the Dominican Republic, starting with Nicaragua and Honduras."¹²⁴

b. Reliability

Telephone reliability is also a problem for conducting business online. Poor Internet performance is very common in Latin America.¹²⁵ Brazil, for instance, has one of the most advanced banking systems in the world and is well situated to lead the revolution in e-commerce and online financial services, but making a successful phone call across town in Sao Paulo is still an uncertain undertaking.¹²⁶ However, as telecom systems improve due to privatization (twenty countries in the region signed the 1997 World Trade Organization (WTO) agreement on basic telecommunication services),¹²⁷ and as more Spanish and Portuguese language portals and other services come online, Latin Americans will become more familiar with Internet transactions and the numbers should change rapidly.

Participants in the WTO's session on e-commerce in 1999 noted that there is a huge technology gap in developing nations, even though worldwide telecom capacities will multiply 100,000 times in the next decade, with new cables carrying "1,000 times the capacity of

June 4, 2000, at http://www.apnic.net/ mailing_lists/apple/0006/msg00004.html (establishing free e-mail access to Costa Rica's entire population while promising to expand the free access to the rest of Central America).

121. See *id.* (describing Punto.com, a six-month pilot project to provide free e-mail access to all Costa Ricans).

122. See *id.* (defining Racsa, a subsidiary of the state-run telecommunications system). See also *Costa Rica: Country Profile*, AMERICAS REVIEW WORLD OF INFORMATION, Sept. 4, 2000, at 1, available at 2000 WL 26592452 (explaining that Racsa is responsible for all written telecommunications and data transmission services).

123. See *Costa Rica Offers Free E-mail to All Residents*, *supra* note 120 (explaining that city buildings and other public institutions in Costa Rica have been given computers so that Costa Ricans who do not have their own computers can still have access to the Internet).

124. *Id.*

125. See Otero, *supra* note 61, at 95 (explaining that Chilean Internet users may experience poor Internet service during peak usage hours).

126. See *Foreword, Technological Edge Supplement*, *supra* note 101 (discussing the variation in the levels of technological advancement across Latin America).

127. See Constance, *supra* note 38 (detailing Latin American governments' commitment to an open telecommunications market).

all the world's wire from just two years ago."¹²⁸ Although the implications for development of e-commerce in the developing world are staggering, the need to address the reliability of the infrastructure to deliver consistent service sobers one's vision of a Latin American Internet revolution.¹²⁹

If Brazil represents the largest untapped market for Internet growth, Argentina has taken the lead in improving the reliability of national telecommunications over the last two years. Argentina has utilized a highly skilled, relatively cheap labor pool from which to draw in reworking the technical infrastructure. The modification has begun with deregulating the government-controlled telecommunications sector. Boston Consulting Group noted that, "deregulation of the telecoms sector, which has resulted in a 50% reduction in Internet telephone charges, is working to change both the real and perceived costs of going online,"¹³⁰ although the cost is still high, with per minute pricing structures that will induce retailers to "pare their online catalogs to include only those items likely to be of intense interest to web users."¹³¹ Lagging behind is the rest of Latin America, which is in the process of re-tooling the telecom sector, including entering into joint ventures with foreign telecom giants.¹³² Such is the case in Mexico where the state-owned Telmex has entered into an agreement with Microsoft to upgrade the nation's telecommunications infrastructure and create a large Internet portal network.¹³³ But Telmex has been responsible for hindering the growth of e-commerce, as evidenced by an IDC study that shows that Mexico's home usage is 29%, compared to 80% in Brazil.¹³⁴ The lack of growth in the consumer market is indicative of

128. See Howard Buck, *World Trade Meeting Touches on Technology Gap in Developing Nations*, COLUMBIAN, Dec. 1, 1999, at 5 (reporting that telecommunications is expected to expand rapidly during the next decade).

129. See Frank Bajak, *While Magnet for U.S. Investment, Latin Startups Face Big Obstacles*, ASSOCIATED PRESS (AP) NEWSWIRE, Apr. 3, 2000 (exclaiming that Latin America's Internet growth is rapid and that the region's 10 million users will increase to about 67 million users by 2005).

130. Warn, *supra* note 100.

131. eMarketer July 1999, *supra* note 4, at 177 (quoting Betsy Scolnik of StarMedia Network).

132. See, e.g., *Meet the Mechanic: Roberto Colaninno, Chief Executive of Olivetti, Has What it Takes to Turn Telecom Italia Around. That Should Worry the Politicians Who Want to Make it a National Champion*, ECONOMIST, May 29, 1999, at 68 (stating that Telecom Italia has started foreign investment ventures in Latin America and some other areas).

133. See *Telmex and Microsoft Join*, *supra* note 27 (detailing how the joint venture agreement aims to provide Spanish-language Internet services across the Americas).

134. See *New IDC Study Examines Latin American Internet Access Providers and Explores Their Impact on the Overall IT and Communications Market*, PR NEWSWIRE, Sept. 15, 1998 (financial news).

the high access costs in Mexico versus elsewhere in Latin America.

c. Overcoming access problems

Recognizing that the acquisition of a computer and the ability to get online are beyond the means of most Latin Americans, governments in Latin America are making a concerted effort to bring computers and the Internet into schools and public gathering places with the goal of expanding “the pool of talent that will transform the region into a fully functional, 21st century technological society.”¹³⁵ “[O]ver the past two years, a movement has gained significant momentum to put a dent in what has been called Latin America’s ‘digital apartheid.’”¹³⁶ And the efforts have been dramatic. In Peru, grants from a Lima-based nonprofit group, the local telephone utility, and the Canadian government, brought the Internet to a remote Indian tribe, the Ashaninka.¹³⁷ The package included “a portable generator, a satellite dish and a big screen monitor for video conferencing for high school education.”¹³⁸ Since the computer arrived in the village, the tribe has entered the world of e-commerce by building a web site for selling “organically grown oranges in Lima, 250 miles to the east.”¹³⁹

Also in Peru, the establishment of public Internet booths and cybercafes by a group called Rede Científica Peruana (RCP) has addressed the lack of phones among low-income citizens.¹⁴⁰ This type of access accounts for 40% of Internet use in Peru.¹⁴¹ Jose Soriano, the founder of RCP, notes that “Internet access through leased lines and shared devices in community centers—not just individual dial-up access—holds the key for growing the Internet as a mass medium in emerging economies.”¹⁴² The access at public booths is also more cost effective, although the question arises as to whether those on

135. See *Foreword, Technological Edge Supplement, supra* note 101 (discussing the efforts of Latin American governments to increase the overall level of computer education).

136. See Anthony Faiola & Stephen Buckley, *Poor Embrace the Internet’s Promise*, *GUARDIAN* (London), July 20, 2000, at 29.

137. See *id.* (describing the benefits of Internet access to the Central Peruvian Ashaninka Indian Village).

138. *Id.*

139. *Id.* The venture has increased the tribe’s revenue by 10%. *Id.*

140. See *Public Booths and Cybercafés, Special Reports, The Internet in Latin America: Monitoring the Boom*, *LATIN AM. NEWSLS.*, Apr. 2000, at 4.

141. *Id.*

142. Quoting businessman José Soriano, founder of RCP, in Madanmohan Rao, *Latin America Will Be the World’s Fastest Growing Regional Internet Market*, *TELEPOLIS* (visited Aug. 21, 2000) <<http://www.heise.de/tp/english/inhalt/co/5997/1.html>>. RCP is also expanding the concept of Internet centers and cybercafes to Argentina, Brazil, Colombia, and El Salvador. See *id.*

limited incomes who connect to the Internet via public booths are going to have the financial resources to participate in e-commerce. Peruvians pay from \$.75 to \$1.70 per hour. In contrast, in Argentina, which has more than 700 public booths, the cost rises to \$5.00 per hour.¹⁴³ Cybercafes are also becoming an important part of the social fabric of Latin America as popular meeting places. PapayaNet, a cybercafe in Ecuador, claims to serve 300 customers each day, and many of the visitors are tourists.¹⁴⁴ Rene Crespo, an Ecuadoran cybercafe entrepreneur, states, “[w]e get a steady stream of tourists and locals to the cybercafe, but our real target is the e-commerce market in Ecuador.”¹⁴⁵

Latin American countries are beginning to provide Internet access to public schools as a means of bringing online services to the region.¹⁴⁶ Brazil has cut a deal with the state of São Paulo to wire thousands of schools with Internet access and stimulate the process of democratization. Chile has completed wiring more than 1200 public high schools with the Internet,¹⁴⁷ and Argentina spent \$1 billion in 2000 “to offer personal computer loans to people who cannot afford conventional credit.”¹⁴⁸ Similarly, the Dominican Republic undertook efforts to connect all 310 of its public high schools to the Internet, via broadband satellite Internet and Intranet connections.¹⁴⁹ The project has been made possible by a \$25 million contract with a Dominican communications firm, Tricom.

Cable, wireless, and satellite access provide an alternative to high access charges over phone lines, and cable operators in the region

143. *See id.*

144. *See Cybercafes Popular Tourist Attractions in South America*, INTERNETNEWS.COM, Nov. 11, 1998, at http://www.internetnews.com/intl-news/print/0,,6_39361,00.html (describing the growing popularity of cybercafes in Latin America).

145. *Id.*

146. *Cf.* Faiola & Buckley, *supra* note 136 (explaining that several Latin American governments provide Internet access to their young and poor citizens in order to bridge the widening gap between the social classes).

147. *See id.* (detailing how the Chilean government prioritized Internet access for the nation’s young people).

148. *Id.* Regarding the program, Dante Caputo, Argentina’s technology secretary stated,

[w]e cannot make the same mistake twice, allowing the new economy to become just as unequal and unjust as the old economy in Latin America. We have got to do everything in our power to make sure that the poor have access to the Internet. It is our best chance to begin to achieve some kind of social and economic justice here.

Id.

149. *See Global News Analysis, Dominican Republic: Expanding the Internet’s Reach*, ECONOMIST INTELLIGENCE UNIT 2000, at <http://ebusinessforum.com> (last visited Mar. 10, 2001) [hereinafter *Global News Analysis*] (detailing the Dominican Republic’s efforts at modernization of its communications systems).

are, perhaps somewhat unrealistically, predicting 500% growth in service, “while dial-up and dedicated ISPs anticipate the number of their accounts will rise only 90%.”¹⁵⁰ One may wonder how cable access to remote areas and rural towns separated by very rugged terrain could be accomplished more successfully than installing telephone lines. Wireless may provide greater coverage to rural and remote areas in the region. Wireless costs have gone down significantly in Brazil, where “furious market competition and the devaluation of the currency have brought Internet rates down from 40 dollars a month two years ago to roughly 10 dollars [a month] today.”¹⁵¹

Notwithstanding how they access the Internet, once potential consumers are online and ready to search the Internet, they discover Latin American businesses that are ready to take on their business. These businesses, targeting the B2C market, are growing at a dizzying pace.¹⁵² According to the International Data Corporation, as of 1999, 90% of Latin American businesses have or are developing a website, 80% have or are developing an Intranet, 45% have or are developing an Extranet, and 44% have or are developing an e-commerce site.¹⁵³ Analysts at Salomon Smith Barney listed 375 Latin American firms on the Internet as of August 1999, up from 269 in 1998 and 138 in 1997.¹⁵⁴ BCG’s analysts identified 422 Latin American companies selling online during 1999.¹⁵⁵ “[O]f these, 73% are in Brazil, 12% in Mexico, 9% in Argentina and 6% spread out over the rest of the region.”¹⁵⁶ Even though Brazil’s numbers are encouragingly high, it must be noted that e-commerce in Brazil is largely limited to Brazil, as the use of Portuguese constrains Brazilian companies from expanding significantly beyond Brazil’s border.¹⁵⁷ This disadvantage should abate very quickly, however, as more joint ventures with foreign investors and dot-com companies acquire stakes in or

150. EMarketer, *Telephone Costs Holding Back Access in Latin America*, Sept. 28, 1998, available at <http://www.emarketer.com> (visited Aug. 21, 2000).

151. Faiola & Buckley, *supra* note 136.

152. See Chase H&Q: *LatAm Companies Have Portal Advantage—Regional*, BUSINESS NEWS AMERICAS, July 18, 2000, available at 2000 WL 22217716 (predicting that B2C e-commerce in Latin America will grow to \$3.1 billion by 2003).

153. See eMarketer July 1999, *supra* note 4, at 179.

154. See *Will the Net Attract Enough Shoppers?*, in *Special Reports: The Internet in Latin America: Monitoring the Boom*, LATIN AM. NEWSLS., Apr. 2000, at 7.

155. See *id.*

156. *Id.*

157. See Bajak, *supra* note 129 (stating that even though Brazil is responsible for between 45% and 50% of Latin American e-commerce, approximately 90% of that business is local to Brazil).

consume Brazilian start-ups.¹⁵⁸

2. *Monopolies, the government, and privatization*

There is a consensus among the Latin American governments that the most effective way to bring their countries to a more competitive marketplace is by promoting free market conditions in the telecommunication field.¹⁵⁹ “Telecommunications are without a doubt one of the driving forces behind the economic development of [Latin American] countries.”¹⁶⁰ If e-commerce is to become an underpinning for the new economies of Latin America, the region’s governments must commit to real improvement of their infrastructure by opening telecommunications markets to competition, by truly privatizing, and by de-regulating the telecommunications industry.¹⁶¹ However, Latin American countries still struggle with the method of privatization, and therein lies the challenge.¹⁶² Even after some twenty years of moving toward privatization, many governments still express tremendous resistance to deregulating and privatizing the telecommunications markets.¹⁶³

For decades, state-owned and privately owned monopolies have controlled the telecommunications industry throughout Latin America, and governments have granted them *carte blanche* to do essentially whatever they wanted.¹⁶⁴ Yet, the development levels of state-owned telecommunications monopolies “have been inferior to those of more developed countries.”¹⁶⁵ These monopolies succeeded mainly in creating obstacles to the development of Internet

158. *See id.* (explaining that Latin American start-ups with U.S. venture capital are renting office space in Florida for their companies).

159. *See* Charles C. Loveridge, *Policy and Market Revision Task Force: Telecommunications Regulatory Affairs in the Americas*, in *A Report for the Inter-American Development Bank*, Aug. 10, 1997, at <http://www.iadb.org/Documents/> (discussing telecommunications agreement established at the Summit of the Americas).

160. Sandra Reed, *Privatization of Latin American Telecommunications Firms*, at <http://www.lectlaw.com/files/il-2.htm> (last visited Nov. 20, 2000).

161. *See id.* (explaining the need for deregulation of telecommunications in Latin America).

162. *See* Gonzalo García Jiménez, *Spanish Investment Strategies in Latin America’s Telecommunications Sector: Conquistadores Redux?*, 7 U. MIAMI BUS. L. REV. 83, 89-90 (1998) (discussing methods used by Latin American countries to privatize the telecommunications industry).

163. *See* Loveridge, *supra* note 159 (stating that the majority of Latin American countries have not agreed to reform their telecommunications industries).

164. In a state-owned monopoly (or natural monopoly) the state is the sole provider of local and long distance services. An artificial monopoly would be one in which the state has a stake in a monopoly but is not the sole owner. For information on the privatization process in Latin America, see Gonzalo García Jiménez, *supra* note 162.

165. Reed, *supra* note 160 (explaining that Latin America has fallen behind other countries in the global telecommunications arena).

technology.¹⁶⁶

The telecommunications monopolies have been allowed to force Internet service providers (ISPs) to route the dial-up call through the local telephone company.¹⁶⁷ With local providers seeking to maximize control of and profit from their services by using a “measured local service rate system,” charging by the minute during the connection¹⁶⁸ makes surfing the Internet very costly. As a result, some 80% of businesses in Latin America still conduct business via fax and paper.¹⁶⁹ Consequently, the private business sectors have begun pressuring governments to implement new regulations and laws allowing and encouraging full privatization of telecommunications,¹⁷⁰ emphasizing that the new technology entering the marketplace cannot wait.¹⁷¹

To understand fully why today’s state of telecommunications adversely affects e-commerce, it is necessary to first examine the type of monopoly that existed in some Latin American nations prior to 1980, the type of monopoly that evolved afterwards, and the type that exists today.

Prior to 1980, telecommunications were owned by state-owned public companies that constituted 100% of the telecommunications industry.¹⁷² While in state hands, telecommunications services proved to be inefficient; service was poor and slow; and demand went unmet.¹⁷³ There were widespread problems in the infrastructure, the

166. See Jorge Miguel Otero, *Panel VII: Taxes, Tariffs, and other Regulatory Barriers to Electronic Commerce*, 17 ARIZ. J. INT’L & COMP. L. 183, 184 (2000) (discussing the chilling effects of monopolies on telecommunications technology development).

167. See *id.* (detailing the difficulties new Internet technology providers face when entering the Latin American market).

168. See *id.* (explaining how local telecommunications monopolies are able to exercise control over Internet access).

169. See Elmer Lenzen, *Internet in Latin America: Hopes and Obstacles*, at http://www.interasia.org/vietnam/hanoi_lenzen_3.html (last visited Nov. 20, 2000) (discussing how the cost of Internet access prohibits many businesses from technologically advancing to electronic communications).

170. In response to rising demand for better telecommunications, the Brazilian government approved Decree 99.179 in March of 1990 which “allowed private capital to provide information services, private telecom exchanges in residential and business buildings, community telephone programs, and cellular mobile phone services.” Antonio Jose J. Botelho et al., *Telecommunications in Brazil*, at http://www.vii.org/papers/braz_ox.htm (last visited Nov. 14, 2000) (illustrating telecommunications reform efforts in Brazil).

171. U.S. Senator Max Baucus stated that Latin American governments can encourage e-commerce by “open[ing] up telecommunications to competition.” See Max Baucus, *Speech: International Trade Aspects of E-Commerce*, 17 ARIZ. J. INT’L & COMP. L. 208, 211 (2000) (emphasizing the important role of modern telecommunications technology for developing nations).

172. See García Jiménez, *supra* note 162, at 86 (“State-owned telephone companies were sole providers of both local and long-distance telephone service.”).

173. García Jiménez illustrated the quality of state-owned services:

companies were highly politicized, and operations were in the hands of sometimes unruly unionized workers.¹⁷⁴ Particularly during periods of economic erosion, the climate of Latin America's trade and commerce proved unsuitable to the technological changes brought by advances in communications.¹⁷⁵ Some countries realized that the inadequate telecommunications structure constituted an "obstacle to economic and social development" and went about implementing reforms in the sector.¹⁷⁶ The countries in the region had a similar goal to improve telecommunications as the vital force behind economic development.¹⁷⁷ Nevertheless, different countries underwent different processes and mechanisms for transferring telecommunications to the private sector.¹⁷⁸

Before privatization the picture was, in general, distressing. In Chile, service penetration was low (about three telephone lines per 100 inhabitants), waiting lists for new lines reached 50% of the lines in service, and due to coexistence between old and new technologies, service innovation was rather small. In Argentina, ENTEL was in complete disarray with more than 8% of the 90% of all public network subscribers out of service, 8.8 telephone lines per 100 inhabitants, almost endless waiting lists, a very low quality of service (telephone calls were completed an estimated 49% for urban calls and 29% for long-distance), management widely perceived as corrupt, and its 45,000 employees, most of whom were unionized in state, on permanent strike. In Venezuela, although it was the fourth largest telecommunications sector in Latin America, as much as 55% of basic demand was not met, eight lines per 100 inhabitants, and waiting lists had an average of eight years. In Peru, waiting lists were three years and line density only 3%. Conversely, in the case of Mexico, although performance also deteriorated (waiting lists of about three years and service penetration still low), the picture was more optimistic for one reason: in comparison with the other state-owned telecommunications companies, TELMEX was a fairly well-run company.

Id.

174. Argentinian state-owned company ENTEL failed to have professional managerial direction and was highly politicized. See Marcelo Celani, *Series Reforma Económicas, Determinantes de la Inversión en Telecomunicaciones en Argentina*, at 11 (on file with author). The unionized workers of TELECOM Colombia forced the government to desist from its privatization attempt by going on strike for a week, suspending all local, national and international communication service. See Margot Lise Hooley, *Telecommunications in Colombia*, at <http://www.vii.org/papers/colo.htm> (last visited Nov. 20, 2000) (detailing the intense opposition to privatization efforts in Colombia).

175. See generally García Jiménez, *supra* note 162, at 87 (discussing how the telecom sector under state ownership hindered development due to the state's inability to respond to rapid advances in technology).

176. In 1989, Argentine President Carlos Menem privatized several sectors of the government to encourage strong economic development. See Celani, *supra* note 174, at 14.

177. See García Jiménez, *supra* note 162, at 87 (discussing the common purposes for telecommunications reform in Latin America).

178. Privatization in Latin American countries proceeded according to the following steps:

- Argentina: Privatization through the sale of 60% of the stock. These stocks were sold to international operators. 40% of the stocks were divided among the company workers, cooperatives and the public in general.

Beginning in the late 1980s, Latin American nations began the slow and painful process of economic reform, beginning with Chile in 1988, and followed by Argentina and Mexico in 1990, Venezuela in 1992, and Peru in 1994.

Much of the stimulus for change came from the disappointments of the 1980's—the "lost decade." The numbers tell a tale of sharply lower, even declining, rates of growth. By the end of that decade, most observers had come to realize that the inward-looking import substitution policies forged in the 1950s and 1960s had run their course. Cut off from the technological advances enjoyed by the rest of the free world, and saddled with cumbersome public enterprises wielding monopoly power, the inward-looking policies had rapidly trapped Latin America in a pattern of ever increasing waste and inefficiency that eroded their resource base, spawned wholesale macroeconomic instability, and left them powerless to

Concessions were awarded in exclusivity for between 6 to 10 years. However, from the beginning cellular phone services were open to free competition.

- Bolivia: Privatization done through capitalization by selling the right to contribute to the state company, ENTEL (50% holding with the right to administrate the company) and to promote comprehensive shareholding, the remaining 50% was divided among Bolivians. ENTEL offers cellular communications.
- Brazil: Until recently Article 21 of the Brazilian constitution established state monopoly by prohibiting the participation of private companies, local or foreign, in the supplying of telecommunications services. This prohibition was overruled through the modification of Article 21. However, under the reformed article only Congress, by issuing a law, was be able to regulate telecommunication. Therefore, the constitutional monopoly was in place until Congress enacted a law establishing the conditions under which participation will be granted capital in this sector. Moreover, under Brazil's Telecommunications Law, foreign participation in the telecommunications sector is limited to 49%. In July 1997, Congress passed the new telecommunications law restructuring and privatizing the State-owned company, TELEBRAS, leaving the state as a regulator and removing it from ownership. Under the law, foreign ownership is limited and the government retains a majority ownership.
- Colombia: Mixed. The basic services are held by the state-owned company, TELECOM, that "retains exclusive control over most long-distance service and all of the more lucrative international service." "In 1994, the government awarded licenses to six cellular companies, and in 1996, the Ministry of Communications opened bidding for two long-distance concessions (a third would automatically be assigned to TELECOM).
- Chile: Fully competitive. Under the law, the same company can provide local and long distance telephone service if it is done through independent "subsidiaries constituted as open charter companies.
- Ecuador: Currently undergoing privatization. Peru: Privatization was done through the sale of stocks.
- Venezuela: Privatization through the sale of stock.

See generally Reed, *supra* note 160 (surveying the processes of telecommunications across Latin America); *see also* Loveridge, *supra* note 159 (providing an overview of privatization efforts in several Latin American countries).

grasp the advantages integration might otherwise have offered.¹⁷⁹

In order to attract investors during the 1980s, the governments that decided to privatize did so by giving private companies a term monopoly.¹⁸⁰ In telecommunications, privatization was accomplished by granting private companies operating concessions with monopoly privileges for the provision of basic telephone services and local and long distance.¹⁸¹ The term of the concessions ranged from six years in Mexico, to eight in Venezuela, and up to ten years in Argentina.¹⁸² Monopoly rights could end and not be extended if the company failed to have strong investment plans and increased growth of services in urban and rural areas.¹⁸³ What evolved was a method of privatization that suppressed true competition and failed to improve the quality and volume of telecommunications services.¹⁸⁴ Also, demand for lines outpaced the number of lines available, and service coverage was confined primarily to the major cities.¹⁸⁵

Now, many years later, technology leaders favor private sector competition for bearing the brunt of e-commerce expansion into Latin America as a less potentially harmful strategy for the developing world.¹⁸⁶ Without privatization of telecommunication entities, e-commerce ventures will not succeed, or certainly will not move forward to satisfy the potential demand.¹⁸⁷ In fact, given the move

179. Alan C. Swan, *The Dynamics of Economic Integration in the Western Hemisphere: The Challenge to America*, 31 U. MIAMI INTER-AM. L. REV. 1, 3 (2000).

180. For example, Argentina privatized by presidential decree 731/89, in accordance with Law 23.696, named Ley de Reforma del Estado. See Celani, *supra* note 174, at 14.

181. See García Jiménez, *supra* note 162, at 92 (explaining the privatization process in several Latin American countries).

182. See *id.* at 92 (comparing various models and methods of privatization). The concessions included a condition of exclusivity for seven years, which could be extended for three more years if certain conditions of investment and quality were met. See Celani, *supra* note 174, at 14.

183. Such reasons would be set forth in the concession contracts. See García Jiménez, *supra* note 162, at 93 (describing typical conditions in telecommunications privatization contracts).

184. For example, Argentina's privatization process was mismanaged, lacked transparency, and was unpredictable. Moreover, the privatization contract established that the benefit received by the companies could not exceed 16% of the invested capital. See Celani, *supra* note 174, at 14; García Jiménez, *supra* note 162, at 94 (discussing Argentina's problematic transition to privatization of its telecommunications industry).

185. See Bjorn Wellenius, *Extending Telecommunications Service to Rural Areas—The Chilean Experience*, PRIVATE SECTOR, Feb. 1997, at n.105 (noting that about 1.5 million Chileans do not even have a public telephone and around 500,000 won't be able to afford a telephone connection).

186. See Buck, *supra* note 128 (discussing concerns associated with the development of international e-commerce and advocating a development policy focused on private sector competition).

187. See Baucus, *supra* note 171, at 208 (discussing the relationship between telecommunications privatization and new forms of economic development). U.S.

toward privatization in the last two decades, the laws and regulations in Latin America have continued to protect the telecommunications monopolies and have prevented expansion of services in the region; changes in the legal terrain are moving forward only grudgingly.¹⁸⁸ Some countries may have sufficient laws and regulations to bring about change, but there is a significant lack of oversight and zeal in the industry because those with oversight powers are weak and easily manipulated.¹⁸⁹

Among Latin American countries, only Chile has succeeded in opening the sector to full competition.¹⁹⁰ Under the 1994 telecommunications law there was no restriction on foreign ownership of telecommunication companies.¹⁹¹ This resulted in an increase in telephone penetration and in lower rates.¹⁹² In 1999, government regulations had “forced rates down by 70%, with the average cost for 20 hours falling from \$55 to \$15.”¹⁹³

Many countries that have privatized have yet to be fully liberalized,

Senator Max Baucus explained that opening up telecommunications to competition is key to reducing the cost of Internet access, thereby increasing the number of potential electronic buyers and markets. *Id.*

188. Countries like Brazil need significant legal groundwork and public commitment for liberalization and privatization to take place. The two administrations following military rule, Collor and Cardoso, unsuccessfully took a liberalization campaign to reform the markets and the telecom industry. Brazil's telecommunications monopoly was mandated by the Constitution and by the Telecommunications Code of 1962. Only in 1988, after numerous bills and fights was the state telecommunications giant, Tebras, privatized. Also, liberalization and deregulation of certain markets have since benefited the procurement of telecom equipment. Having finished with policies for protecting Brazilian industries, the government terminated the market reserve for large switching systems, and allowed the importation and fabrication of optical fibers. See Antonio Jose J. Botelho et al., *supra* note 171 (outlining the history and development of Brazilian telecommunications); see also *Doing ebusiness in . . . Brazil: Infrastructure*, at EBUSINESSFORUM.COM, Sept. 26, 2000.

189. For example, this is the case of Cofetel in Mexico and Anatel in Brazil. Analysts comment that companies seeking to invest in data transmission in the region (by renting or laying cables for fiber optic installations) should be cautious of the lack of oversight there is in the telecommunications industry in Latin America. See Lisa K. Wing, *Utilities Take a Byte*, LATINFINANCE, Apr. 2000, at 32 (describing the difficulty of managing a business in a deregulated market and warning that many companies may not have the management means to operate in the telecommunications market).

190. See Loveridge, *supra* note 159 (reporting on the progress of telecommunications privatization in several Latin American countries). See also Walter Molano, *The Forces of Privatization: The Privatization of Chile's Telephone Industry*, 4 NAFTA: L. & BUS. REV. THE AM. 120, 121 (1998) (discussing the political history of the privatization of Chile's telephone industry).

191. See Loveridge, *supra* note 159 (comparing Chile's telecommunications regulatory regime to those of other countries).

192. See *id.* (illuminating the effects of Chile's privatization process). For example, telephone penetration in 1997 jumped from 7 per 100 inhabitants to 12 per 100. *Id.*

193. Faiola & Buckley, *supra* note 136.

as the trend has been to convert a public monopoly into a private monopoly.¹⁹⁴ This occurs when the government sells the state-owned monopoly and gives a new private operator the exclusive right to provide local and, sometimes, long distance service for a designated time period.¹⁹⁵ The result of this type of privatization is that the affordable service that would evolve through competition fails to develop.¹⁹⁶

Some of the barriers to the growth of e-commerce must be resolved by the governments of Latin America. Argentina continues to tolerate a monopoly for Internet access. Because of the monopoly the cost of high-speed net access in the country is prohibitively expensive, between fifty to one hundred times the cost of such access in the United States. To make a phone call from Buenos Aires to Rosario it is cheaper to call through New York! On the other hand, the recent privatization of the state-run phone company in Brazil is expected to lead to reduced telephone charges and better infrastructure service in that country, helping to accelerate the growth of e-commerce.¹⁹⁷

Great demand for new and cheaper “technologies challenge the existing powers and their exorbitant, non-cost based rents.”¹⁹⁸ Changing the laws and regulations to allow and assure service providers the opportunity to offer services is crucial to a healthy competitive market. This change has been difficult throughout the region, and “has generated considerable opposition from labor unions and political parties committed to maintaining the government’s role in the provision of what are generally referred to as essential services.”¹⁹⁹ The private business sector has also grown impatient with slow moving bureaucracies.

In Argentina, Comsat, a data communications company licensed to operate long distance service, is challenging the government’s traffic rules for charging for incoming calls.²⁰⁰ “The regulation establishes

194. See Loveridge, *supra* note 159 (explaining the tendency of Latin American countries to merely privatize their monopolies rather than truly privatize their industries).

195. This occurred in Argentina, Belize, Bolivia, Panama, Peru, and Venezuela. See *id.* (analyzing the privatization efforts of Latin American countries).

196. See *id.* (expounding on the disadvantage of private monopolies).

197. Jim Kolbe, *International Trade and E-Commerce: Framework for the Future*, 17 ARIZ. J. INT’L & COMP. L. 211, 217 (2000).

198. Jim Landers, *Down to the Wires; Climate hampers Latin Telecom Market’s Growth*, DALLAS MORNING NEWS, July 25, 2000, at 1D.

199. Loveridge, *supra* note 159.

200. See *Americas*, TARIFICA REG. ALERT, No. 15, Oct. 11, 1999 [hereinafter *Americas*] (establishing Comsat as a major player in the telecommunications market in Argentina, competing with companies such as Impsat, Telecom Soluciones, and Advance Telecomunicaciones).

that the dominant operator charge the incoming call the same price as an end customer."²⁰¹ Comsat argues that an independent infrastructure is needed to remedy this burden on long distance telecommunications services,²⁰² and industry experts note that a monopoly on telecommunications obstructs innovation and competition, keeps access costs high, and prevents improved services.²⁰³ Argentina telecommunications regulation has long been fashioned on classifications for licensing telecommunications carriers. This system has proven hostile to a competitive industry and may be responsible for the high costs "as well as the slow development of the Internet."²⁰⁴ Argentine consumers can only access the Internet by dial-up modem "for a monthly fee, which, in some cases, permits access for only limited duration and at restricted times,"²⁰⁵ even though new technologies provide users with other ways to connect to the Internet. These new methods are not contemplated by the operators of Argentina's national telecommunications network, who claim that the innovations are not "controllable by its regulators" and are "erod[ing] the foundation on which the current regulatory system rests."²⁰⁶

At any rate, new rules for regulating telecommunications and Internet services were proposed and are set to be in place by November 8, 2000.²⁰⁷ These rules "pretend" to fully liberalize the industry and establish only one type of integrated license.²⁰⁸ But two months before the complete liberalization of the telecommunications markets is set to occur, the new rules necessary to regulate the market are yet to be in place.²⁰⁹

In Brazil, the matter of competition and corporate ownership has disrupted growth of e-commerce projects. Current Brazilian law does

201. *Id.*

202. *See id.* (reasoning that interconnection creates a barrier to companies trying to enter the telecommunications market).

203. *See Latin American Gold Rush, supra* note 59 (arguing that Latin American Internet penetration will remain low until a low-cost, easy-to-use access device exists).

204. *See* Kenneth R. Carter, et al., *Internet Services and New Regulations in Argentina*, LATIN AM. L. & BUS. REP., Aug. 31, 2000, at 2 (noting that the Argentine telecommunications regulations are outdated and hinder competition).

205. *Id.*

206. *Id.*

207. *See id.* (noting that on June 2000 the President issued Decree 450/00 and Presidential Instructions to review the proposed rules regarding regulation of telecommunications and Internet services in Argentina, specifically regulation of carrier licensing, network interconnection, and universal service funding).

208. *See id.* at 23 (delineating the three types of licenses created by the licensing regime of 1999: telephony, telecommunications and Value Added Services (VAS)).

209. *See id.* at 24 (concluding that the new Argentine rules have not been established in time for a successful liberalization of the telecommunications market).

not allow one company to hold positions in competing companies. Such is the case with the disallowed merger of MCI and Sprint.

Sprint owns 25% of Intelig in association with France Telecom and the British National Grid. Intelig is the long distance carrier planning to start up operations by end 1999 in direct competition with Embratel, which is 100% owned by MCI. The partners paid in January \$55 million Reals for the license to compete with Embratel and outlined plans to invest \$2.8 billion Reals in infrastructure.²¹⁰

Given the restriction of the law, some analysts believe Sprint is left with three choices: (1) pull out from Intelig, (2) bring in the telecom agency Anatel to monitor the operations of both Sprint and Embratel, or (3) terminate the license for Intelig or Embratel.²¹¹

There is an additional element at play in Brazil's plans to privatize the telecommunications sector, one with strong nationalistic and protectionist tendencies that appear to fly in the face of GATT,²¹² the World Trade Organization ("WTO"),²¹³ and Mercosur²¹⁴ agreements. In 1995, the telecommunications sector became subject to constitutional amendments,²¹⁵ when Constitutional Amendment No. 8 of 15 August 1995 mandated that concessionaires or permissionaires of public services no longer need to be state-owned companies.²¹⁶ The amendment created a situation such that "in order to protect the economic and financial health of state-owned companies, the government had to act very prudently in defining the process for the granting of licenses, since these companies [would] have to live within a new competitive environment, never before

210. *Americas, supra* note 200.

211. *See id.* (stating that Brazilian law does not permit a company to hold positions in competing companies).

212. *See* General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 [hereinafter GATT] (providing the basic rules of the multilateral trading system that controlled from January 1, 1948 until the World Trade Organization (WTO) became effective on January 1, 1995). *See also* GATT 1994: *What Is It?*, at http://www.wto.org/english/thewto_e/whatis_e/eol/e/wto02/wto2_4.htm#note1 (last visited Jan. 16, 2001) (exploring the provisions of the GATT 1947 agreement).

213. *See* GATT 1994: *What Is It?*, *supra* note 212 (outlining the agreement that established the WTO, an organization that provides a multilateral and integrated trading system).

214. Mercosur is a trading bloc comprising the nations of Argentina, Brazil, Paraguay, and Uruguay. For more information on Mercosur, see *Mercosur*, at <http://www.idrc.ca/lacro/investigacion/mercosur.html> (last modified Dec. 23, 1998).

215. *See* Fabio F. Kjawski & Eduardo de Cerqueira Leite, *Brazil: New Regulatory Framework for the Granting of Licenses in Telecommunications*, at <http://www.natlaw.com/brazil/topical/cm/spbrcm/spbrcm1.htm> (visited Sept. 17, 2000) (according to a report issued by Baker & McKenzie on the firm's website).

216. *See id.*

experienced by them."²¹⁷

However, in August 1999, the Brazilian National Telecommunications Agency put in place a new rule, Resolution 155, setting forth a set of procedures and requirements for "hiring services or acquiring equipment by telecom services providers."²¹⁸ The requirements are such that preference for equipment and contacting services must be shown to domestic suppliers and expertise first before products and services can be solicited from international suppliers and contractors. "Generally, the preference must be granted whenever the price conditions, delivering term and quality of Brazilian equipment or service are equivalent to the same equipment or service provided by a non-Brazilian company."²¹⁹

217. *Id.*

218. Fabio de Sousa Coutinho & Luciano Costa, *The New Ruling for Telecommunications Services Providers in Brazil to Acquire Equipment or Hire Services*, at http://www.bakerinfo.com/Publications/Documents/1152_tx.html (visited Sept. 17, 2000) (a report issued by Baker & McKenzie on the firm's website).

219. *Id.* The requirement, in either the Concession Contract or the Authorization Term, is basically the same, and can be translated as follows:

Clause n—In hiring services or acquiring equipment and material related to the service which is the object of this contract (or term), the Concessionaire (or Authorized Provider) is obliged to consider offers from independent suppliers, including national ones, and base its decisions, with respect to the various offers presented, in compliance with objective criteria of price, delivering conditions and technical standards established in the pertinent regulation.

Paragraph 1—In cases in which equivalency in the offers exists, the Concessionaire/Authorized Provider is obliged to use as decisive criteria the preference for services offered by companies located in the Country, equipment and material manufactured in the Country, and, within this group, those with national technology. The equivalence referred to in this clause will be verified when, simultaneously:

I) the national price is lower or equal to the imported price added to all taxes for importation;

II) the delivering term is compatible with the service needs;

III) the technical standards established in the pertinent regulation are met and certification issued or accepted by ANATEL is present, when applicable.

In order to guarantee compliance with such requirements, the Resolution establishes the following procedure for any acquisition or contract estimated in excess of R\$ 1,000,000.00 (roughly U.S.\$ 500,000):

(i) the telecom provider must announce, for no less than 5 days, in its homepage, an intention to acquire equipment, material or services and where any interested supplier located in Brazil may find the information needed to make an offer;

(ii) ANATEL must be notified of the outcome of such public announcement within 10 days, which are counted from the date the supplier is chosen. ANATEL must also be advised as to the criteria used to select the chosen supplier.

Any supplier that believes it has been discriminated against by the telecom providers' decision may file a complaint before ANATEL. If the non-compliance with the Resolution is confirmed, the telecom provider is subject to pecuniary fines up to R\$ 30 million (roughly U.S.\$ 15 million).

Articles 7 and 8 of the Resolution grant ANATEL extensive access to all the

There have been suggestions that Resolution 155 is the result of political and nationalistic concerns with the need to stimulate national industries and maintain employment, particularly as Brazil emerges from one of the country's longest and harshest economic crises. But the resolution was not popular.

Even before its enactment, the Resolution faced strong reaction from telecom providers, particularly huge telephone operators. This is due to the fact that many of the concessionaire companies, since the privatization process of the Brazilian telecommunications sector, have had international telecom suppliers of equipment or service participating in their equity composition, or have also had robust business relations with such international companies.²²⁰

Those who contest the Resolution argue that competition in the Brazilian telecom market will be highly damaged by being isolated from world markets. In this scenario, most technologically innovative products and services would not reach the Brazilian market. In addition, the lack of secrecy in the business relations between suppliers and telecom providers that may result from use of the Resolution procedures may be harmful to the commercial strategies of telecom services providers. Indeed, there is a delicate political issue behind the enactment of the Resolution: the governmental policy of seeking development of Brazilian industry and technology in the telecommunications sector.²²¹

Finally, in Mexico, the Federal Communications Commission (Cofetel)²²² has pressured Telmex,²²³ which privatized in 1990,²²⁴ to

documents and records related to the acquisition of equipment and services, in order to allow the agency to verify compliance with the Resolution provisions.

It is important to note that, in order to prevent abuse of the right to complain described above, the Resolution determines that, if the accusation of discrimination is declared false more than once, or if it is used to obtain any irregular advantage or to delay the formalization of the execution of a contract, its author should be required to reimburse ANATEL for the administrative expenses in examining the case.

Id.

220. *Id.*

221. *See id.*

222. Cofetel is Mexico's telecommunications watchdog. It is independent from the Secretary of Communications and Transportation (SCT). Although the SCT is the principal regulatory authority in granting concessions, Cofetel actually makes the decisions to adjust telecommunications tariffs because the SCT generally adheres to Cofetel's recommendations. *See Mexico Telecommunications Update, 1999*, INFOAMERICAS, 1999, available at <http://www.infoamericas.com>. Together, the SCT and Cofetel work to secure operating environments, encourage competition, look after implementation of interconnection rates, and promote non-discrimination in the choice of service providers, among others. *Id.* Since April 1998, Cofetel was granted the additional responsibility of "overseeing the aperture of the long distance market." *Id.* Currently, Cofetel is also overseeing the "local, cellular, satellite,

increase tariffs on long distance services in order to recover telecommunications losses, again posing a hindrance to stimulating e-commerce infrastructure expansion.²²⁵ This action by Cofetel is due in part to pressure by the United States to break Telmex's hold on the telecommunications market in which Telmex has a 90% share—even after competition in the long-distance market was introduced in 1997.²²⁶

Cofetel has a long history of failing to properly regulate Telmex. But Cofetel, which has a reputation for being “a paper tiger,”²²⁷ is not alone in Latin America for poor oversight of the telecommunications industry and allowing telecommunications conglomerates carte blanche to do what they want to do.²²⁸ Under threat of the United States pressing a lawsuit filed with the WTO, Cofetel recently determined that Telmex would have to change its inter-connection fees on costs.²²⁹ “Telmex was given a deadline of mid-October to lay out these new, cost-based interconnection tariffs.”²³⁰ Cofetel also directed that Telmex “would have to maintain uniform local service charges across the country until 2003.”²³¹ Analysts were quick to note that any changes in pricing or impact on opening the market to competition would be minimal.²³²

Telmex has long been the seven hundred pound gorilla, and has resisted any attempts to loosen its hold on the industry, using Cofetel as a foil to deflect most challenges to its near monopoly. Telmex, for

microwave (both point to point and point to multipoint), the radio electric spectrum, cable television, paging and trunking.” *Id.*

223. “Telmex” is Telecommunications of Mexico, a privately owned company that is 49% foreign-owned by South Western Bell and France Cable & Radio and is 51% owned by Grupo Carso. Telmex is the dominant long distance provider in Mexico. Under Mexican law, all long distance providers in Mexico must be majority Mexican owned. *See id.* (describing the various players in the Mexican telecommunications industry).

224. *See* Pablo Garibian, *Mexico's Telecom Regulator Reins in Telmex*, REUTERS, Sept. 12, 2000 (defining Telmex as a former government monopoly that was privatized in 1990).

225. *See Americas*, *supra* note 200 (expressing that Telmex's competitors have called upon Cofetel to raise prices as a means of reducing their losses).

226. *See* Pablo Garibian, *Mexican Regulation Changes Will Have Minimal Impact*, REUTERS, Sept. 12, 2000.

227. *Id.*

228. *See* Wing, *supra* note 189, at 32 (“In a number of Latin American countries, the government regulates power companies while there is no oversight in the telecommunications industry.”).

229. *See* Garibian, *supra* note 226 (referring to a lawsuit commenced by the U.S. Trade Representative against Mexico alleging a lack of government action to open the market).

230. *Id.*

231. *Id.*

232. *See id.*

instance, has up to now gotten away with not lowering the \$2.61 per minute interconnection rate imposed on its competitors in the long distance market.²³³ Moreover, Cofetel has allowed “Telmex to increase its long distance rates by 14.16% and its local rates by 4.07%.”²³⁴ Telmex also possesses a license for national distribution of cellular service, and controls 65% of that market.²³⁵

Telmex’s actions and Cofetel’s complicity have not gone unnoticed by world regulatory and trade bodies. In 1999, the Organization for Economic Co-Operation and Development²³⁶ (“OECD”) found that Mexico’s phone charges were twice the organization average while the number of telephone lines for every 100 inhabitants was among the lowest in Latin America.²³⁷ Citing Telmex’s high interconnection rates and unfair practices, OECD criticized Mexico for its failure to reach teledensity of 20 lines per 1000 inhabitants.²³⁸ According to OECD, “Telmex need not be compensated for the interconnection rate decrease as it saw in 1998 a \$1.6 billion profit gain, while its two largest competitors—Alestra and Avantel—saw combined losses of \$450 million.”²³⁹ Furthermore, price increases to the consumer gained Telmex an additional \$814 million in revenues in 1999.²⁴⁰ Cofetel justifies such revenue increases by saying that “these increases are still well below the rate of inflation.”²⁴¹

This behavior by Telmex and Cofetel prompted the United States, AT&T, MCI, and Southwestern Bell to file a lawsuit before the WTO

233. See *Mexico Telecommunications Update, 1999*, *supra* note 222 (noting that the Organization for Economic Co-Operation and Development’s Communication Outlook 1999 criticizes Mexico’s failure to increase competition against Telmex).

234. *Id.*

235. See *id.* (explaining that Telcel, a subsidiary of Telmex, has a high market share of the cellular market due to the market’s partially closed nature).

236. See *What is the OECD?*, at <http://www.oecd.org/about/general/index.htm> (last visited Nov. 16, 2000) (describing the OECD as a twenty-nine country organization that facilitates the perfection of social and economic policy on a global level).

The OECD groups 29 member countries in organization that, most importantly, provides governments a setting in which to discuss, develop and perfect economic and social policy. They compare experiences, seek answers to common problems and work to co-ordinate domestic and international policies that increasingly in today’s globalised world must form a web of even practice across nations.

Id.

237. See Landers, *supra* note 198 (examining an OECD report that recognizes Mexico’s lagging telephone line availability).

238. See *Mexico Telecommunications Update, 1999*, *supra* note 222 (criticizing the government’s lack of regulation as the cause for Mexico’s failure to advance in the telecommunications industry).

239. *Id.*

240. See *id.*

241. *Id.*

charging that Telmex has systematically and with government collusion stifled competition in the telecommunications markets in Mexico.²⁴² Washington has accused the Mexican government of shielding Telmex from competitors and has alleged that doing so prevents U.S. companies from moving into the market.²⁴³ Part of the conflict has to do with Telmex's refusal to grant lines to companies that, according to Telmex, have refused to pay millions of dollars for long distance connections.²⁴⁴ The United States claims, however, that the high rates charged by Telmex for access were designed to drive out competition. Under WTO rules for telecommunications trade, the going rate for circuits should be set on a cost-based fee. However, Telmex charges its foreign competitors "19 cents a minute for circuit access that costs Telmex only 6 cents a minute."²⁴⁵

Under the regulatory and legal environment that exists in Mexico, it is difficult for Cofetel to exercise its authority, as Telmex has used the court system to prevent Cofetel from exerting its authority over Telmex.²⁴⁶ In fact, Telmex has won "more than 200 injunctions against the regulatory agency."²⁴⁷ The seven hundred pound gorilla continues to lumber along.

To encourage competition in the telecommunications industry, Mexico must give Cofetel more autonomy and authority to regulate the telecommunications industry.²⁴⁸ Even with privatization, "Mexican consumers pay nearly four times as much as U.S. consumers for a basket of telecommunications services."²⁴⁹ To promote liberalization the Mexican government must also make the

242. See Diego Cevallos, *Trade-Mexico/U.S.: Telecoms Dispute Goes Before WTO*, INTER PRESS SERVICE, July 28, 2000.

243. See *U.S. to Request WTO Consultations With Mexico Regarding Telecommunications Trade Barriers*, at <http://www.ustr.gov/releases/2000/07/00-57.html> (last visited Nov. 16, 2000) (outlining the issues regarding prohibitive Mexican telecommunications practices that the U.S. government would like the WTO to resolve).

244. See Landers, *supra* note 198 (explaining that U.S. telecommunications firms complain that Telmex will not supply circuits for dial-up Internet access when requested).

245. *Id.*

246. See *id.* (reporting that U.S. trade officials blame the lack of control over Telmex's monopoly on Cofetel's inability to effectively "referee").

247. *Id.*

248. "President-elect Vicente Fox has said he will ensure that Cofetel has both the autonomy and authority to regulate Mexico's telecommunications companies." Jim Landers, *Down to the Wires: Climate Hampers Latin Telecom Market's Growth*, DALLAS MORNING NEWS, July 25, 2000, at 1D.

249. A study by the Alexis de Tocqueville Institution found that in the United States, 2,000 minutes a month of local calls, national and international long-distance and unlimited Internet access cost under \$45. The same package in Mexico costs more than \$160. See *id.*

right policy decisions to promote foreign investment.²⁵⁰ Failure to do so diminishes customers and services. For example, in 1999, when petroleum revenues were low, the Mexican government tried to compensate for the lost revenue by assessing a 15% tax on local and long distance services, in addition to the 15% value added tax that was already in place, causing Mexican consumers to pay for losses in an unrelated sector of the economy for no other reason than that the symbiosis between the government and monopolies closely tied to the government allows such behavior to occur.²⁵¹

Privatization does not necessarily equal relief from monopolies and lower prices from new competition. Under circumstances such as exist in Mexico, lower prices are not going to be seen by consumers because right now the companies are passing the marketing costs on to the consumers in order to confront the competition.²⁵²

To encourage development of the telecommunication sector in any type of technology, wired, wireless or fiber optic, Latin American governments must establish a clear and transparent regulatory system which allows government agencies to become more authoritarian and responsible for providing reasonable access to the market.²⁵³ Companies may have expertise in the technologies, but they could continue to have risk aversion if the regulatory framework remains uncertain.²⁵⁴ For instance, in order to “create ubiquitous broadband, [Latin American countries] must create transparent, effective regulatory regimes that ensure full competition . . . This means that regulators inevitably must curb the power of powerful incumbent carriers to create a level playing field for new entrants.”²⁵⁵

250. See Landers, *supra* note 198 (explaining that although the Latin American market is ripe for foreign investment, fear of a non-competitive marketplace have kept many investors away).

251. See *Mexico Telecommunications Update, 1999*, *supra* note 222 (noting that long distance companies have been upset about the tax because they feel it is contrary to the concept of deregulation).

252. See Pablo Bachelet, *Más Competencia, Precios Iguales*, AMERICA ECONOMIA, June 1, 2000, at 12.

253. See *Latin American Gold Rush*, *supra* note 59. Latin America lacks the backbone for Internet traffic that was built in the United States where different Internet service providers connect to that backbone at different access points. *Id.* For a user in southern Chile to access “a site in Ecuador, the traffic will go all the way from Chile to the U.S. and then back to Ecuador. To remedy this problem, several companies are building undersea fiber optic cables that connect Latin America with the U.S.” *Id.*

254. See Landers, *supra* note 198 (noting that without a firm regulatory regime to ensure competition, Mexico will continue to fall behind other nations in telecommunications technological advancement).

255. *Id.*

C. *Logistical Barriers*

E-commerce operators “are especially frustrated by a lack of service and support from traditional logistics firms,”²⁵⁶ noting that high shipping costs, slow and poor service, and delivery coverage that is limited to metropolitan areas hinder the growth of online business.²⁵⁷ Moreover, the problem is further aggravated by “protectionist and bureaucratic customs officials and a lack of modern infrastructure.”²⁵⁸

1. *Distribution and delivery systems*

Anyone who has ever attempted to ship a package to a Latin American destination knows that shipping is expensive, mostly inefficient, and often unreliable.²⁵⁹ “Restrictions on certain goods are imposed by courier company policy, by the laws of the destination country and by the airlines that handle the cargo, if the courier does not operate its own fleet.”²⁶⁰ Shipping costs in the region are significantly higher, time in transit is longer, and the procedures entail more inconvenience than shipping over the same distances in U.S. markets.²⁶¹ Moreover, the process is so unreliable that businesses and services do not accept payment by mail. This high cost, unpredictability, and a lack of responsibility to the client are mainly “due to government red tape, the cumbersome collection of taxes and duties, and difficulties in returning goods.”²⁶² Another factor is corruption and theft by postal and delivery workers and malaise of Latin Americans who seem to accept it. Whereas delivery may be offered free of charge in B2B purchases in the thousands of dollars, the cost to deliver goods in transborder B2C transactions, which average under \$100, may be so high in proportion to the price of the item bought that it is not cost efficient to buy online.²⁶³

256. *E-commerce and Logistics—A Reluctant Marriage Takes Hold*, INFOAMERICAS, June 2000, available at <http://www.infoamericas.com/Tendencias/General/0600/0600.pdf> [hereinafter *E-Commerce and Logistics*] (describing the logistics industry as comprising carriers, airlines, trucking firms, freight forwarders, and customs agents such as Federal Express, and the United Parcel Service).

257. See *id.* (lamenting online business’s lack of delivery options for non-metropolitan Latin American areas).

258. *Id.*

259. See Vanyi-Robin, *supra* note 74, at 103 (explaining that shipping logistics have long been a problem in Latin America due to an unreliable postal service and the high cost of private parcel services).

260. *E-commerce and Logistics*, *supra* note 256.

261. See *Dismantling the Barriers to Global Electronic Commerce*, at <http://www.oecd.org/dsti/sti/it/ec/prod/DISMANTL.HTM> (last modified Oct. 16, 1997) (noting that although online shopping is convenient, offline shipping is costly and inefficient).

262. *Id.*

263. See *Latin America B2B E-Commerce—A Promising Future*, *supra* note 26 (offering

For example, in the United States, a reader can log onto Amazon.com and receive a \$5 book within three days for \$4. For an Argentine resident, it could take 12 weeks or cost nearly \$40. Yet, Yenny.com, one of Argentina's largest online bookstores, can deliver a book to an Argentine resident for \$6 in three days.²⁶⁴

It is said that Latin America "suffers from an acute case of Reliable Distribution Disorder."²⁶⁵ While a cross-border transaction may proceed without incident, there is genuine concern that merchandise may be lost in transit.²⁶⁶ Furthermore, the carrier at the origination point may not be the same carrier at the terminus. Whereas businesses purchasing online have the advantage of customs brokers working for them to shepherd goods through the shipment pipeline, most private consumers have little experience with the system and no such access to brokers or import permits.²⁶⁷ The situation is frustrating to the major carriers in Latin America, who view increased business with B2C clients "as a nuisance rather than an opportunity."²⁶⁸

For one thing, nearly one-third of on-line orders placed by consumers contain data entry errors compared with only 10% to 15% of B2B orders. Tracking down the business customer to verify the data is also far easier than with consumers. B2B delivery is also much simpler. Courier companies typically require an average of about 2 visits to a household to complete a delivery compared with 1.2 visits for a business. These problems translate into higher costs and more hassles for a much smaller slice of the total courier business.²⁶⁹

Even experienced shipping companies encounter significant hurdles to delivering merchandise to customers in Latin America. "In Brazil and other countries, companies like UPS with its hallmark

a comparison of the payment and delivery methods of B2B commerce and B2C commerce).

The average purchase is in the order of roughly \$70, but logistics costs can raise the client's bill to as much as \$150. At those rates, B2C purchases are limited mainly to hard-to-find items bought by the upper classes. As a result logistics costs are preventing B2C vendors from challenging traditional consumer good distribution channels.

E-commerce and Logistics, *supra* note 256.

264. See John Kennedy et al., *Internet Goes South, And So Do Investors*, NAT'L L.J., Jan. 24, 2000, at C8.

265. Weisman, *supra* note 79.

266. See *id.* (explaining that once an order has been placed on the Internet and the payment has been authorized, the merchandise often does not arrive).

267. See *Latin America B2B E-Commerce—A Promising Future*, *supra* note 26 (noting that businesses have more safeguards than average consumers to assure the delivery of goods they purchase online).

268. *E-commerce and Logistics*, *supra* note 256.

269. *Id.*

door-to-door tracking and delivery have to pass the client to someone else for local service because laws in those countries don't allow a single company to handle the cargo through the whole logistics chain,"²⁷⁰ and even then, some couriers will not deliver to private residences.²⁷¹ This contracting/subcontracting process between carriers raises the cost and reduces the reliability of delivery for goods purchased online.²⁷²

As a consequence, a number of Latin American e-commerce start-ups that are selling internationally have jumped to Miami, where American international couriers are better able to track and deliver merchandise back to Latin America as promised, when promised.²⁷³ Some international shipping firms have attempted to fix the holes in the distribution chain. An example of this is DHL, which has undertaken to improve service by building a new hub in Argentina to handle the delivery of goods resulting from e-commerce transactions.²⁷⁴

Even if the delivery apparatus is put in place to better serve e-commerce customers, the shipping of products across borders can still be slowed or terminated by the rigid nature of civil law systems and customs regulations.²⁷⁵ Often goods are stopped in transit "because a signature doesn't match or there is a document [that] contains a minute error,"²⁷⁶ or a bribe is required to move the process forward.²⁷⁷ This snafu can result in a package being returned to the

270. *Document Devils: There's More to Shipping Goods in Latin America Than Just Getting Them There*, LATIN TRADE, Jan. 8, 2000 [hereinafter *Document Devils*] (reporting information obtained from Dale Hayes, vice-president of corporate development and the head of e-commerce for United Parcel Service).

271. See *Latin America B2B E-Commerce—A Promising Future*, supra note 26 (lamenting the lack of shipping services for non-commercial purchasers of online goods).

272. See eMarketer July 1999, supra note 4, at 177.

273. See generally Antony Currie, *Miami Spice*, EUROMONEY, Mar. 2000, at 124 (discussing Miami's growth as a home to international banks and Internet start-ups).

274. See *Logistics*, MERCOSUR TRADE & INVESTMENT REP., Nov. 1999, at 11.

[DHL] plans to invest \$19 million over the next two years in Argentina to expand its operations . . . The investment will enable the company—which is owned by Deutsche Post, Japan Airlines, Lufthansa and private investors—to offer next day delivery between Brazil, Argentina, Uruguay and Paraguay (the Mercosur countries) and 24-hour delivery to and from the U.S.

Id.

275. See *Document Devils*, supra note 270 (reporting on a study which states that documentation and taxation problems account for half of the stopped shipments in Latin America).

276. *Id.*

277. According to a ship captain interviewed, "paperwork is often a ruse for seeking a bribe. At the very least, customs and immigration officials expect a complimentary bottle of top-shelf bourbon or whiskey. Forget the booze and you better be ready for delays." *Id.* As a former Colombian judge, the author can confirm first-hand that such practices routinely take place. It is as if bribery is built

sender or permanently misplaced.²⁷⁸

Another quagmire arises when new regulations take effect without prior notice to the shipping industry.

You never know when the documentation problems may throw a wrench into the logistics chain. Port authorities in Buenos Aires one time delayed a ship belonging to Brazilian company Grupo Libra for days because it didn't have a new crew registration document that was only made a requirement in Argentina that very week.²⁷⁹

If a new apparatus is installed to ship goods via e-commerce that circumvents the opportunity for officials to enrich themselves, it is reasonable to anticipate that delays in receiving goods purchased online will result. But few solutions appear on the horizon. Brazil has taken great strides to improve customs operations at major shipping and transit centers in the country. Dell Computer saw enough improvement to risk opening a plant in Brazil in 1999, and the International Air Transport Association reviewed customs house operations in Brazil and noted significant improvement in customs clearance rates of freight and cargo. Yet, according to one freight forwarding executive, "[t]he performance of each of the customs officers depends very much on the (chief) customs inspector."²⁸⁰ Another executive in the industry agrees, noting that customs in Brazil can get the job done right, however "it is so inconsistent. My clients ask me the average time and when I tell them that it can take one day or it can take 10, they just look at me."²⁸¹

The following anecdote by a reporter who hired a freight forwarder to ship his belongings from Brazil back to the U.S. illustrates the challenges awaiting an e-commerce company in Latin America:

I signed forms that basically constituted a contract, as well as a power of attorney to take control of my things. My goods, I was told, should arrive within the week. A little more than two weeks later, customs demanded that I supply notarized copies of my passport, visa, Brazilian residence card, plane tickets and exit

into the legal system.

278. See P. Howlett, *Latin American E-commerce: Get Online or Perish*, IDG NEWS SERVICE (Latin America Bureau), at <http://www.idg.net/idgns/1999/06/07/LatinAmericaEcommerceGetOnlineOr.shtml> (June 7, 1999) (discussing the "general lack of faith in the delivery of goods in Latin America").

279. *Document Devils*, *supra* note 270.

280. Michael Fabey, *Relativity: An International Team Looking At Cargo Trouble Spots Has Surprising Things To Say About A Well-Known Choke Point*, AIR CARGO WORLD, Aug. 1, 1999, at 24 (quoting Jose Olyntho Machado, Jr.).

281. *Id.* at 24 (quoting Beat Simon, country manager for Danzas, a Swiss forwarder).

card A month later, another call. My power of attorney had expired; I needed to sign and send down another one. I, of course, did. Two months passed. Another call. Another problem. This time I was told that the signature of my initial forms did not match the later signatures, nor did they match those on the official signature card I had filled out in São Paulo. After almost half a year, I still had not received my goods.²⁸²

Latin America is very strict, formalistic and inflexible in regard to following procedures “to the letter.”²⁸³ This is particularly true about forms and paperwork, and the Circle Group, a logistical consultant company, offers courses to companies “to teach them how to fill out the right documents and properly. According to the company, many of the shippers leave the course with their jaws dropped.”²⁸⁴

Yet, even with high or inconsistent delivery of goods and the challenge of overcoming the rigidity of civil law systems, market analysts, such as the Giga Information Group, are “predicting that corporations around the world will save up to \$1.25 trillion by 2002 by doing business over the Internet. Companies conducting both external and internal activities online can save millions of dollars.”²⁸⁵ To any entrepreneur, this is a potent incentive to press forward, making the risks in the distribution chain worth taking. Moreover, in a region where the costs of conducting international business transactions are traditionally quite high, conducting business through e-commerce could significantly widen the profit margins of even small businesses in Latin America.²⁸⁶

Companies with something of a handle on distribution obstacles are making themselves attractive to e-commerce ventures by marketing their regional shipping expertise. StarMedia brought to its venture with Hewlett-Packard an expertise in shipping through its Sky Box Services, an innovative logistics solution.²⁸⁷ The service

282. *Document Devils*, *supra* note 275.

283. R. Lemos, *Brazil*, in *General Questionnaire*, 17 ARIZ. J. INT'L & COMP. L. 23, 25 n.4 (2000). “[I]t can be stated that [the] Brazilian Legal System is predominantly formally-attached, and innovative responses from courts to new questions such as electronic commerce issues invariably take some time to occur. Such formalism is rooted in an excessive attachment to old-fashioned legal doctrines.” *Id.* Likewise, Colombians recognize that the legal culture is characterized by excessive formalisms. See F. Reyes, *Columbia*, in *General Questionnaire*, 17 ARIZ. J. INT'L & COMP. L. 23, 98 (2000).

284. *Document Devils*, *supra* note 275.

285. *Foreword, Technological Edge Supplement*, *supra* note 101.

286. See Michael Fabey, *Servicio: Faster Freight Needs Are Driving Investment In Express Service Across Latin America*, AIR CARGO WORLD, Nov. 1999, at 23 (reporting on why American shippers in Latin America are increasingly courting small and medium sized companies).

287. See Mary Hillebrand, *HP Puts E-Commerce to Work in Latin America*, E-COMMERCE

enables Latin Americans to have purchases from U.S. websites shipped to a U.S. address for customized handling. "Sky Box then carries them south and delivers them to homes and offices, bypassing often unreliable local carriers."²⁸⁸

Another shipping industry firm, the Miami-based online service From2.com,²⁸⁹ helps ease the fears of businesses eager to expand into Latin America by calculating shipping and customs charges based on the merchandise, value, weight, and package size.²⁹⁰ From2.com "demystifies the complexity associated with foreign customs issues," logistics, and added costs by providing quotes to customers of the total costs before purchasing.²⁹¹ The company frees the merchant from the responsibility of knowing the importation laws in the country in which the goods are shipped and guarantees the quote given at no charge to the merchant "if the merchant uses From2.com's shipping services."²⁹² The company also maintains sales tax exemption records.²⁹³

Still, hundreds of smaller cities in Latin America, with populations exceeding 200,000, are unable to benefit from the delivery services offered by the major shipping companies,²⁹⁴ and government postal services are "erratic at best."²⁹⁵ As a result, these customers are forced to depend on "small and unreliable companies to fill the gap."²⁹⁶

At times, the only reliable national delivery system belongs to the soft drink and potato chip manufacturers that stock the bodegas and mom-and-pop stores that do business in almost every community, no matter how small or remote.²⁹⁷

TIMES, (Sept. 10, 1999) at <http://www.ecommercetimes.news/articles/990910-5.shtml> (describing HP's belief that the Sky Box initiative will increase HP's e-commerce business in Latin America 300 times over).

288. Anthony DePalma, *Getting There is Challenge for Latin America E-Tailing*, N.Y. TIMES, Aug. 17, 2000, at C4.

289. See *From2 Global Solutions*, at <http://www.from2.com/english.index.htm> (last visited Nov. 15, 2000) (offering global e-commerce solutions which facilitate international trade).

290. See *From2.com Breaks Down The Barriers Of International E-Commerce*, at <http://www.from2.com/english/prcontent.asp?articleID=43> (June 30, 1999) (explaining how the company's "Global Cost Calculator" overcomes shipping problems).

291. See *id.* (demonstrating how the company is able to navigate through complex issues).

292. *Id.* (explaining the benefits a company derives from using from2.com's technology and know-how).

293. See Hillebrand, *supra* note 287.

294. See *E-commerce and Logistics*, *supra* note 256 (noting that "the leading courier firms continue to regard the... [small firms] as a nuisance rather than an opportunity").

295. See DePalma, *supra* note 288, at C4.

296. *E-commerce and Logistics*, *supra* note 256.

297. DePalma, *supra* note 288, at C4.

The dilemma remains not how much money is to be paid on insurance, tariffs, and taxes for transborder shipping, but how to physically deliver the purchases. The major international shipping companies like UPS, FedEx, and DHL are anticipating the expansion of e-commerce into Latin America.

We liken the status of the Internet in Latin America to being where the United States was in 1996," said John Menna, vice president at U.P.S. for marketing for Latin America and the Caribbean. "It'll take about four or five years to start seeing anything substantial develop there. Nonetheless, U.P.S. is putting in place all the pieces and the infrastructure to facilitate electronic commerce and the buying and selling of goods throughout Latin America."²⁹⁸

As part of the long-range plans of UPS, the company recently purchased Challenge Air Cargo, a Miami-based air cargo company serving Latin America,²⁹⁹ and is in the process of expanding a cargo hub in Viracopos, Brazil to accommodate Mercosur distribution chains.³⁰⁰ "[T]he acquisition provides landing rights in virtually every developed country in Latin America, a process that could have taken years had it been negotiated nation by nation."³⁰¹ With the rights, UPS is now offering "day-definite service five days a week to Central America with dedicated round-trip flights between Miami and San Jose, Costa Rica, the budding Silicone [*sic*] Valley of the region."³⁰²

Some countries such as Brazil, Mexico, and Peru have been thinking about solutions, following the lead of Argentina and Ecuador, which have already privatized the mail service.³⁰³ The move in Brazil, however, has drawn concern from the express carrier companies operating in the region that privatization would place the postal services in direct competition with express carriers, and that new regulations would bring international carriers under domestic authority. DHL executives assert that the Brazilian postal service intends to exert control over the express carrier industry "and extend its monopoly. It's a very hot issue."³⁰⁴

In the end, the success of e-commerce ventures in Latin America comes down to the ability of retailers and distributors to move goods internationally, and for consumers to acquire goods without undue

298. *Id.*

299. *See id.* (noting that UPS strengthened its Latin American operations by adding more airplanes and routes from Miami to Latin America).

300. *See* Fabey, *supra* note 286, at 23.

301. DePalma, *supra* note 288, at C4.

302. Fabey, *supra* note 286, at 23.

303. *See E-commerce and Logistics*, *supra* note 256 (noting that these countries believe a privatized mail service will create a wide network as well as competitive pricing).

304. Kevin G. Hall, *Express Carriers Attack Brazil Taxes*, J. COM., Oct. 28, 1999, at 1.

tax and tariff hardship. Notes UPS vice-president Dale Hayes, “No matter how much technological expansion is taking place, a seamless web for trading goods and services is meaningless—and in the end, unattainable—without a seamless network for transporting them.”³⁰⁵

D. Regulatory Barriers: Customs, Tariffs, and Taxation

There is no question that the growth of e-commerce has until quite recently been slowed by cross-border customs obstacles and the accompanying tariffs and taxation. The lack of uniformity throughout Latin America as to standard prohibitions of certain goods can prove a daunting barrier for transnational e-commerce, particularly when the consumer is in one country surfing the Internet and makes a purchase from an online company in another country. The consumer may make the purchase and not realize that the goods paid for are not allowed in his or her country. A standard list of prohibited goods includes the following:

[INSERT TABLE 1]

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305. *Moving Toward a Streamlined*, “E” Latin America, BUS. WIRE, May 16, 2000.

The following is an example of specific prohibitions in Argentina, Brazil, and Mexico:

[INSERT TABLE 2]]

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Most e-commerce business advocates resist customs duties and taxation on international e-commerce transactions. “[C]yber-space should remain duty free. Just as in the world of international trade in goods, tariff barriers imposed on electronic commerce will stifle competition and impede efficiency and innovation.”³⁰⁶ Brazil has been under significant pressure from express shipping companies to reduce or remove heavy taxes on expedited shipments, which the shippers claim “discriminates against their mode of transportation and robs shippers of efficienc[y].”³⁰⁷

Brazil, the largest economy in Latin America, imposes a flat 60% tax on the declared value of goods arriving in Brazil via Federal Express, United Parcel Service and DHL Worldwide Express. The tax doesn’t apply if shipments arrive by traditional carriers.³⁰⁸

306. Kolbe, *supra* note 197, at 218.

307. Hall, *supra* note 304, at 1.

308. *Id.* (recognizing that global package-express companies are pressing Brazil to get rid of its hefty tax and noting that the sixty percent flat tax is a discriminatory

Shipping companies note that in addition to the flat tax, Brazil levies other taxes, such as value added taxes.³⁰⁹ Examples of tariffs and taxes on computer software and hardware in the following Latin American nations provide an indication of the costs tacked onto transborder purchases:

[INSERT TABLE 3]

Used with permission from Infoamericas.com.

Borrowing language from the OECD regarding issues applicable to Latin American nations, “[a] key question for governments is how the development of electronic commerce relate[s] to the current tax system, including substantive principles of direct and indirect taxation, as well as increased opportunities for tax avoidance and evasion, and issues of tax administration.”³¹⁰ Tariffs, customs duties, and regulations have been used to protect domestic industries by making imported items prohibitively expensive for most consumers. However, the higher tax on those rarely acquired goods does provide a revenue stream for Latin American nations. This is significant in the context of e-commerce where “[o]f the online Latin American consumers, 74% shop at U.S.-based internet sites, while only 26% shop locally.”³¹¹

Tariffs and disparate bureaucracies make it difficult and expensive to buy across borders within Latin America. Moreover, customs regulations and import tariffs vary so broadly and so often within the

practice).

³⁰⁹. See *id.* (noting that such costs ultimately are a deterrent).

³¹⁰. *OECD Policy Brief No. 1 Nov. 1997 on Electronic Commerce*, at http://www.oecd.org/subject/electronic_commerce/documents/emergence.htm (July 6, 2000) [hereinafter *OECD Policy Brief No. 1*].

³¹¹. eMarketer March 2000, *supra* note 113, at 236.

region as to make the cost of doing transborder business irregular and unpredictable.³¹²

“It is clear that consistent approaches at [the] international level are urgently required to ensure the effectiveness of taxation laws in this new environment.”³¹³ During the WTO meeting in Seattle in 1999, “several first-world panelists urged a permanent ban against customs duties on services for goods sold over the Internet.”³¹⁴ The WTO’s position at present is a temporary tax moratorium for its member nations.³¹⁵ One Chilean analyst advocates a 5 percent transaction tax, split evenly between the buyer and seller, the idea being that e-commerce gains would be spread more equally throughout the free-trade environment still being defined under Mercosur.³¹⁶ Meanwhile, banks and investors, impatient to move into the e-commerce arena in Latin America, are putting pressure on governments not to interfere with e-business investments and ventures. Nonetheless, some Latin American governments have not responded well to pressure from the private sector to loosen customs laws and tariffs, thereby ensuring some resistance to the relinquishment of state control over commercial infrastructure.

The Mercosur trading bloc has established customs regulations that have made expedited transborder delivery of goods as express shipments more reasonable. The value limit on the express shipments in Brazil was recently raised “from \$500 to \$3000 for imports and from \$3000 to \$5000 for exports.”³¹⁷ However, there is still no minimum value, thus “if a company sends a small gift such as a \$15 compact disc, it would be charged at 88% of that value.”³¹⁸

Many corporations looking to expand e-commerce services into Latin America would like to see nations in the region embrace uniform regulations and standards and remove domestic barriers imposed by customs regulations and taxation. Among others, Microsoft and other Business Software Alliance members have called for e-commerce to be regulated under trade rules set forth in both the General Agreement on Tariffs and Trade and the intellectual property provisions of the WTO.³¹⁹

312. *See id.* at 238.

313. *OECD Policy Brief No. 1, supra* note 310.

314. Buck, *supra* note 128.

315. *See id.*

316. *See id.* (quoting Alfredo Barriga).

317. Fabey, *supra* note 286, at 23.

318. Hall, *supra* note 304, at 1 (noting that despite the no-minimum value, package-express companies would like to see a minimum value between \$50 and \$100).

319. *See* George Leopold, *Racks up \$3.5B in Software Sales; E-commerce to Drive*

E. Security

Latin Americans tend to be distrustful of businesses, banks and financial institutions, and the government.³²⁰ Their wariness comes from long traditions of institutional corruption and unethical business practices.³²¹ Concern over the security of e-commerce transactions is cited as the single most important problem for Latin Americans, although a few analysts will argue that this is not as much an issue for consumers as it is for businesses and banks.³²² As a general rule, Latin American consumers do not provide credit card numbers over the phone; most credit card transactions are performed face-to-face and almost always require a physical signature.³²³ Given this longstanding practice, Latin Americans are hesitant to relinquish a credit card number into the void of cyberspace. For those Latin American customers willing to purchase online with credit cards, most are stopped “by a dearth of both secure links and automated payment system software.”³²⁴ Consequently, many Latin American companies have someone monitoring the Web site for transactions.³²⁵ If a purchase order is received with only a credit card number, a worker at the company’s site will manually enter the credit card number into a credit card terminal for authorization.³²⁶

For instance, a successful Argentine online bookstore, Librerias Yenny, accepts credit card numbers over the Internet through an e-mail request, but the order is processed off-line. The site “encrypts all the customer’s information and validates it on-line.”³²⁷ However, the final transactions are made outside the virtual environment at the

Growth, ELEC. ENG’G TIMES, Oct. 11, 1999 (noting the goal of members “to encourage consistent approaches to online trade”).

320. For an interesting discussion of ethics in the region, see *Business Ethics in Latin America*, LATIN AM. ALLIANCE, at <http://www.latinsynergy.org/latameri.htm> (visited Sept. 9, 2000).

321. See *id.* (advocating that the most significant challenge of business ethics in Latin America is the elimination of corruption).

322. See Vanyi-Robin, *supra* note 74, at 103; see also Howlett, *supra* note 278 (discussing obstacles to e-commerce in Latin America).

323. R. Nogueira & L.H. Ventura, *Brazil*, in *General Questionnaire*, 17 ARIZ. J. INT’L & COMP. L. 23, 91 (2000) (quoting Ricardo Nogueira, who acknowledged that “the principle factor that could be regarded as an obstacle to the development of e-commerce transactions in Brazil is insecurity.”); see also Otero, *supra* note 61, at 95 (stating that Chilean consumers are skeptical about the security of online payments and the lack of consumer protection against fraud or failure to deliver the products purchased online).

324. Weisman, *supra* note 79 (noting that Argentina’s credit card penetration level of thirty percent is the highest of all Latin American countries).

325. See *id.*

326. See *id.* (illustrating the difficulties associated with simple transactions).

327. Collazo, *supra* note 1.

time the order is processed. "The customer usually signs the receipt upon delivery of the goods or sends a fax with the authorization."³²⁸ This off-line method renders the process a non-e-commerce purchase if one follows the strict definition that "[t]rue e-commerce occurs when an entire transaction from search to purchase can be completed without leaving the computer."³²⁹ Regardless of the definition of the type of transactions taking place, Librerias Yenny has crossed over from the brick and mortar business into the world cyber market, establishing a second website with international presence in the United States, Mexico, and Spain.³³⁰

Assuming many e-purchases in Latin America are made through U.S. companies insisting on the use of a credit card to complete the deal, some analysts think e-commerce in Latin America is actually being hindered by requiring credit cards to complete transactions. There is also a problem with U.S. credit card processing services not recognizing foreign MasterCard and Visa card numbers or retailers simply not accepting them.³³¹

Credit card fraud is so widespread in the region that "many people still queue at the bank to pay bills in person."³³² Understandably, Latin Americans are hesitant to use or accept credit cards for online transactions with no general standard in place to effectively verify the identity of e-commerce parties or assure secure transactions. Part of their hesitation is based upon the notion that "[e]lectronic commerce applications can be secure only if they operate in a business environment with adequate controls of physical, financial, and computer resources."³³³ A survey conducted in Argentina by Prince & Cooke showed that even with explosive growth in Internet use, "43.6% of Argentine new users would not purchase goods online due to fears over payment security."³³⁴ In Brazil, however, Banco Bradesco has teamed up with a group of local banks and Visa credit

328. Otero, *supra* note 61, at 96.

329. Giraldo Gutierrez, *Real Electronic Commerce; Coming Soon to Latin America*, LATINFINANCE, Sept. 1998, at 38.

330. See Mary A. Dempsey, *Vuelta a la Hoja*, LATIN TRADE, June 2000, at 54.

331. See Jo Cooper, *City: That'll Do Nicely—I Don't Think*, SUNDAY TEL. (London), May 7, 2000, at 5 (recognizing that foreign credit cards are routinely checked for security verification, but noting some merchants reject the cards rather than follow through with the security verification process).

332. eMarketer March 2000, *supra* note 113, at 237 ("Latin Americans have an even greater concern about credit card fraud than Americans and Europeans.")

333. BENJAMIN WRIGHT & JANE WINN, *THE LAW OF ELECTRONIC COMMERCE* 3-1 (3d ed. 1999) [hereinafter WRIGHT & WINN] (noting the difficulty in maintaining information system security).

334. Warn, *supra* note 100 (explaining that there are still obstacles to the development of e-commerce).

card to take the lead in promoting e-commerce through an online shopping site, and has eased security concerns for consumers.³³⁵ Latin American governments must implement legislation to protect consumers' data and privacy.³³⁶

Given the maxim that "[c]omputer security cannot be guaranteed or proven,"³³⁷ the task of e-commerce companies in the region will be to educate and assure Latin Americans that reasonable precautions have been taken to safeguard the electronic business transaction process.³³⁸

Clearly, Latin America can benefit from efforts by the e-commerce industry in first world countries, which, for nearly a decade, has been attempting to define clear strategies for secure transactions based on established principles and guidelines such as those issued by the American Institute of Certified Public Accountants and the Financial Account Standards Board.³³⁹ Mostly, e-commerce security should be the result of these common-sense practices identified by the National Research Council in 1991:³⁴⁰

- Quality control. The design of a system must be appropriate to provide the functionality it is intended to supply even before security concerns are taken into account.
- Access control on code as well as data. Every system must have the means to control which users can perform particular operations.
- User identification and authentication. Every system must have the means to ensure that any user is properly associated with the correct system identifier.
- Security logging. Every system must have the means to log for later audit all security-relevant operations on the system, including improper attempts to access the system and protection of the log to prevent it from being deleted or

335. See Howlett, *supra* note 278 (noting consumers' desire for guaranteed security of credit card information); see also Vanyi-Robin, *supra* note 74, at 103.

336. See Nogueira & Ventura, *supra* note 323, at 91. One model Latin American countries could follow would be the OECD Consumer Protection Guidelines to: (1) control fraudulent and misleading commercial conduct; (2) resolve disputes and establish redress mechanisms; and (3) ensure on-line consumer privacy. See *OECD Guidelines for Consumer Protection in the Context of Electronic Commerce*, at <http://www.oecd.org/dsti/sti/it/consumer/prod/guidelines.htm> (last visited Sept. 20, 2000).

337. WRIGHT & WINN, *supra* note 333, at 3-2 (noting the security of physical assets that is assured through industry standards).

338. See *General Questionnaire*, *supra* note 68.

339. See WRIGHT & WINN, *supra* note 333, at 3-2 (providing a clear articulation of essential security features).

340. See *id.* (explaining the elements of generally accepted system security principles).

altered after being written.

- Security administrator. All systems must have a special class of user who is permitted to modify the security state of the system according to standard procedures.
- Data encryption. Any networked system must have a method of encrypting confidential or sensitive communications.
- Independent audit. An independent, unannounced audit of the system and its administration, analogous to an annual business audit by an accounting firm, should be conducted.
- Hazard analysis. A hazard analysis must be done for every safety critical system.³⁴¹

During that same year, the Internet Engineering Task Force provided a guide for Internet users by recommending the following procedures to secure online transactions:

Looking at what you are trying to protect;

Looking at what you need to protect it from;

Determining how likely the threats are;

Implementing measures which will protect your assets in a cost-effective manner; and

Reviewing the process continuously, and improving things every time a weakness is found.³⁴²

Not long ago, the International Chamber of Commerce created a Global Action Plan that can serve as a model for Latin American governments to follow in order to alleviate consumer security fears. Among the issues addressed in the Plan are: protection of personal information; consumer empowerment; marketing and advertising ethics; and issues relating to confidentiality and lawful access to information.³⁴³

There are a number of solutions that are both currently available and emerging to calm Latin American consumers skittish about credit card transactions over the Internet. One method is the use of passwords and personal identification numbers ("PIN"), which is an inexpensive form of providing security in e-transactions. "The common failure by users to implement password systems properly, however, creates a very real security threat."³⁴⁴ As a further safeguard,

341. *See id.* (citing to the work undertaken by the Site Security Policy Handbook Working Group of the Internet Engineering Task Force in 1991).

342. *See id.* (recognizing that the members of the task force point out that selling security policies and procedures really means developing a plan for dealing with computer security).

343. *See* J.A. Avellan, *ICC, in General Questionnaire*, 17 ARIZ. J. INT'L & COMP. L. 23, 99 (2000).

344. WRIGHT & WINN, *supra* note 333, at 3-14.

PIN numbers and passwords could be compiled into a database managed by a third party.

Also, the re-engineering of credit cards is showing positive results. In Chile, banks are introducing credit cards for use in online transactions that “contain different security mechanisms, special data encryption, and purchase limits to ensure safe use.”³⁴⁵ Likewise, in Brazil, some financial institutions have established alternate payment mechanisms, including “the electronic wallet, smart cards . . . and the virtual credit card designed specifically for online purchases.”³⁴⁶

Direct debit or smart cards, first developed in France in 1974³⁴⁷ and used extensively in Europe, may provide another solution to consumers who fear using credit cards online. “Circumventing credit card use for e-commerce purchases opens up a much wider potential user pool,”³⁴⁸ much as pay-and-use phone cards have created a new market for long-distance calling. “In a standard protocol, the smart card generates a message containing the user’s name and password, encrypts the message, and transmits the encrypted message to a central authentication server for authorization to access.”³⁴⁹ The introduction of smart cards into the B2B and B2C online arena is led by banks who see the security advantages of storing digital signatures or certificates on a smart card instead of storing them on a PC’s hard drive, which would render the certificate susceptible to hackers.³⁵⁰ Bank of America, like other financial institutions such as Deutsche Bank, Citibank, Chase Manhattan, and Barclays Bank,³⁵¹ has established an authentication services firm called Identrus. Identrus has created “an international registry of sorts for trustworthy e-commerce entities. Identrus would provide a one-stop, third-party safety check,³⁵² and security would be protected by a rule that Identrus digital certificates “must reside on smart cards.”³⁵³

IBM is also bringing into the market e-commerce products such as Vault Registry digital certificate software and the CommercePoint

345. Jose Luis Donoso, *IT Developments*, 15 COMPUTER L. ASS’N BULL. 28 (2000).

346. Vanyi-Robin, *supra* note 74, at 103.

347. See WRIGHT & WINN, *supra* note 333, at 3-14 (discussing the invention of the smart card, its subsequent use in Europe, and its potential use in the United States).

348. Collazo, *supra* note 1, at 48, 50.

349. WRIGHT & WINN, *supra* note 333, at 3-14 to 3-15.

350. See Donald Davis, *B2B Gets Down to Business*, CARD TECH., Feb. 2000, at 30, 36 (discussing the consortium of international banks focused on the use of smart card technology).

351. See *id.* (listing the various banks which participate in the consortium).

352. Buck, *supra* note 63 (discussing information provided by Elizabeth Ghekierre, Bank of America senior vice president).

353. Davis, *supra* note 350, at 30, 36.

payment product,³⁵⁴ which will provide Latin American e-commerce businesses with more secure means to conduct electronic transactions. One industry analyst notes that if Internet retailers put the fears of consumers to rest and provide easier access to high-quality goods than traditional brick and mortar retailers, the e-market in Latin America will succeed.³⁵⁵ This success will result, if for no other reason than wealthy Latin American consumers will not have to go to Miami to shop.³⁵⁶

Given the difficulties associated with B2C transactions, analysts believe that e-commerce in Latin America will be driven more by B2B transactions.³⁵⁷ This is because B2B transactions are forecast to outpace other types of "online activity in terms of dollar volume of goods and services transacted."³⁵⁸

One significant hurdle for Latin American e-commerce businesses to overcome is the very high cost of establishing public key infrastructure ("PKI") and smart card services. PKI technology can run as high as \$30 million for a individual company to implement.³⁵⁹ Also, the smart cards themselves can cost U.S.\$8 to U.S.\$24, "depending on how much other functionality is required."³⁶⁰ In addition, the smart card readers installed on PCs are pricey, between U.S. \$30 and U.S. \$50 each. Moreover, the consulting costs to get the system up and running can be very high. Regardless, the cost may be well worthwhile if the end result is to secure the legality of binding contracts in an electronic marketplace.

354. See Carlos Pirez, *IBM Talks up E-commerce in South America*, THE STANDARD, June 11, 1998, at <http://www.thestandard.com/article/display/0,1151,616,00.html> (discussing the role IBM intends to play in Latin American E-commerce).

355. See Warn, *supra* note 100 (discussing the rapid growth of internet start-ups in Argentina).

356. See *id.*

357. See Vanyi-Robin, *supra* note 74, at 103 ("B2B e-commerce is expected to grow at much higher rates than B2C, increasing to an estimated \$6.1 billion by 2003, whereas online spending by consumers will hit \$1.9 billion that same year, according to IDC.")

358. See *id.*

359. See Davis, *supra* note 350, at 36 (noting that bids to set up PKI systems can run between 15 and 30 million dollars).

360. *Id.*

III. LEGAL CHALLENGES

Legal changes to adopt and embrace e-commerce are rapidly implemented in the United States, where industry lobbyists and consumers affect legislation, where commercial custom is a source of law, and where judges keep pace with changes in industry and commerce through their interpretations of the law.³⁶¹ On the other hand, Latin America has been slow to implement new legislation to accommodate e-commerce. The region has yet to see consumers and lobbyists influence legislation, and custom is “at best a secondary source of law.”³⁶² In addition, judges in Latin America are limited to following the letter of the law as set forth by their respective legislatures.

While all regions of the developing world struggle over the best way to regulate e-commerce, Latin America’s concerns extend beyond the mere implementation of new laws and regulations. How electronic-commerce should be regulated in each Latin American country is and will be crucial to the success or failure of this new way of conducting business transactions. Resolving this issue goes to the heart of the civil law tradition: the sanctity of forms and the requirements of traditional writing and signature.³⁶³ Latin America’s new legislation governing e-commerce must effectively address a proper legal framework for the development of electronic markets. The changes must include adapting to the evolving networked infrastructure, diminishing or ending the government’s dominance and control that curtails the consumer’s power, and creating more flexibility for judges as interpreters of the law.

Latin American nations have proposed and enacted laws and regulations, in addition to issuing decrees regarding electronic documents, digital signatures, certification authorities, tax procedures, and amendments to existing civil and commercial code provisions with the goal of strengthening the language of the laws to embrace commercial and contractual obligations in the electronic environment.³⁶⁴ However,

361. See O.T. Johnson, *U.S.A.*, in *General Questionnaire*, 17 ARIZ. J. INT’L & COMP. L. 23, 30 (2000) (confirming that, in the United States, “consumer demand is pushing e-commerce forward, and the law will simply have to catch up.”).

362. *Issues Paper*, 17 ARIZ. J. INT’L & COMP. L. 5, 13 (2000) [hereinafter *Issues Paper*]; see also *General Questionnaire*, *supra* note 68, at 23-30.

363. See *Issues Paper*, *supra* note 362, at 11 (noting the traditional dependence upon tangible documents and signatures in Latin American culture).

364. For example, Mexico’s initiative is to reform its Civil Code, Articles 1, 1803,

the individual efforts of individual countries lack the strength and effectiveness associated with regional or international guidelines or initiatives. The proliferation of different rules may not only hinder harmonization efforts but also restrict or delay the acceptance of new e-commerce technologies when such regulations are not technology neutral.³⁶⁵

Substantive and procedural conflicts domestically and between countries have failed to facilitate a proper environment for electronic commerce. This creates a complex and unpredictable environment.

A. *Formality of the Legal System*

The impact of e-commerce on the Latin American legal tradition has been to challenge its historical formalism and lack of adaptability.³⁶⁶ Latin American legal systems inherited from the Roman-Germanic tradition the predominance of written law over any form of custom and judicial interpretation.³⁶⁷ Concern with legal certainty drives Latin American countries to implement laws

1805, 1811, and add Article 1834. Mexican lawmakers also plan to reform the Code of Civil Procedure and Commercial Code by revising Articles 18, 20, 21 (1st paragraph), 22-27, 30-32, 49, 80, 1205, and adding Articles 20, 21, 21.1, 30, 30.1, and 32.1298-A. See *La Firma Digital.com*, at www.lafirmadigital.com/legislacion/america/mexico/at1.htm (last visited Mar. 10, 2001); see also *La Firma Digital.com*, at www.lafirmadigital.com/legislacion/america/mexico/at3.htm (last visited Mar. 10, 2001); *The National Law Center for Inter-American Free Trade*, at <http://natlaw.com/e-commerce/docs/e-commerce-initiative-mexico.htm> (last visited Nov. 20, 2000) (detailing proposed modifications to Mexico's Commercial Code).

365. See *Issues Paper*, *supra* note 362, at 15.

366. See International Chamber of Commerce, *GUIDEC—General Usage for International Digitally Ensured Commerce*, at <http://www.iccwbo.org/home/guidec/guidec.asp> (last visited Sept. 21, 2000) (“The historical and currently perceived function of formalities has an important effect on their adaptability to electronic commerce. The advent of electronic commerce has challenged, and will continue to challenge, the validity of these formalities.”).

367. See *Issues Paper*, *supra* note 362, at 11, 25 (“Latin America’s transactional laws, . . . are still heavily influenced by the nineteenth century civil code policy.”); see also Francisco Reyes Villamizar, *Electronic Commerce: Recent Legal Developments in Colombia*, Oct., 2000 at 3 [hereinafter *Developments in Colombia*] (conference paper on file with author). Furthermore, judges are not prone to judicial interpretation. Merryman, writing about judges states:

An extreme separation of the dogma of strict separation of the legislative and judicial powers was the notion that judges should not interpret incomplete, conflicting, or unclear legislation. They should always refer such questions to the legislature for authoritative interpretation. . . . The net image is of the judge as an operator of a machine designed and built by legislators. His function is a mechanical one. The great names of the civil law are not those of judges (who knows the names of a civil law judge?) but those of legislators (Justinian, Napoleon) and scholars (Gaius, Irnerius, Bartolus, Mancini, Domat, Pothier, Savigny, and a host of other nineteenth- and twentieth-century European and Latin American scholars).

JOHN HENRY MERRYMAN, *THE CIVIL LAW TRADITION: AN INTRODUCTION TO THE LEGAL SYSTEMS OF WESTERN EUROPE AND LATIN AMERICA* 36 (2d ed. 1985).

regulating every imaginable move or transaction, to require written documents to evidence every business deal and simple affair, and to require handwritten signatures to ascertain the identity of the parties involved.³⁶⁸ Coincidentally, the perplexing formalities of Latin America's civil law traditions challenge the entrepreneurial spirit of e-commerce enterprise.

To the common law-trained observer, Latin America's exaggerated preoccupation with legal formalism is at times astounding.³⁶⁹ The formalism is such that the amount of written documents, signatures, and stamps required to conduct commercial transactions presumes "that every citizen is lying unless he produces written, documentary proof that he is telling the truth."³⁷⁰

Pre-existing laws and rules pertaining to commercial custom and course of dealings hamper e-commerce in the region. Given the nature of the technology that feeds e-commerce (namely the inherent speed and high customer involvement), commercial custom and the parties' course of dealings ought to be the accepted norm. However, in Latin America commercial custom is a subsidiary source of law that is applied and legally binding only in the absence of written statute, and when it does not contradict existing law.³⁷¹ In practice, commercial custom or course of dealings "are rarely applied."³⁷² Under the Latin American legal tradition, the judge will usually find a written statute regulating party obligations for two reasons.

The Civil Code and Commercial Code regulate party obligations. The Civil Code regulates general issues like principles of obligations, contract formation, and capacity. The Commercial Code is more specific because it regulates all matters related to commercial transactions and merchants.³⁷³ Therefore, when dealing with any commercial issue, the Commercial Code must be applied first. If this

368. See generally *Issues Paper*, *supra* note 362, at 11 (discussing the legal formalities imposed upon transactions in Latin America); see also *Developments in Columbia*, *supra* note 367, at 3.

369. See JOHN HENRY MERRYMAN & DAVID S. CLARK, *COMPARATIVE LAW: WESTERN EUROPEAN AND LATIN AMERICAN LEGAL SYSTEMS: CASES AND MATERIALS* 387 (1978); see also F.H. LAWSON, *THOMAS COOLEY LECTURES, FIFTH SERIES, A COMMON LAWYER LOOKS AT THE CIVIL LAW* (1953) (discussing the historical differences between common law and civil law).

370. MERRYMAN AND CLARK, *supra* note 369, at 387.

371. See *General Questionnaire*, *supra* note 68, at 24-30 (citing various panelists' responses regarding the legal implications of customs in Latin America).

372. Lemos, *supra* note 283, at 25.

373. See *id.* at 31 (explaining that under the inherited French or Roman-Germanic legal system, Latin American countries divide the issues covered by the Civil or Commercial Code but recognizing that "despite theoretical divisions, the line between . . . civil and commercial laws has been effectively blurred.").

code is silent on the issue, then the Civil Code applies.³⁷⁴ In the absence of statutory regulation of the issue, commercial custom and course of dealings would apply. Due to this “low hierarchy, one rarely finds claims based on customary law” in Latin American courts.³⁷⁵

Because proving commercial custom is difficult and cumbersome, and because the party alleging commercial custom has the burden of proof,³⁷⁶ a court will consider a commercial custom to be binding if “it has been recognized by at least two judicial decisions or duly certified by the local chamber of commerce.”³⁷⁷ Also, a commercial custom will apply if it does not conflict with commercial law, and the facts that constitute the custom are uniform, public, and “repeated over a long period of time” in the place where the obligation is to be fulfilled or where the relations to be regulated arose.³⁷⁸ Because it is difficult to provide evidence on customary law, lawyers generally prefer to base their claims on statutory law.³⁷⁹

“The impact on e-commerce is self evident. Courts will remain reluctant to enforce claims based on commercial customs and course of dealing. Also, parties will rarely base claims on customary law because of the unlikelihood of a favorable decision and the evidence requirement.”³⁸⁰

There are a number of contract formalities that must be observed as well. For the creation of a right, the law requires certain contracts to be finalized in written form, while other contracts require writing, notarized documents and registration, and authentication by handwritten signature.³⁸¹ Thus, any e-transaction taking place in countries that have yet to enact e-commerce legislation may prove unenforceable.³⁸²

374. See *Developments in Columbia*, *supra* note 367, at 4 (“This legal duality is troublesome in the specific field of contracts, due to the existence of duplicity of regulations for many private agreements. The assessment of the applicable substantive regime is usually difficult and often characterized by subjective definitions.”). *Developments in Columbia*, *supra* note 367, at 4.

375. Lemos, *supra* note 283, at 26.

376. See *id.*

377. Reyes, *supra* note 283, at 28.

378. See Otero, *supra* note 61, at 27; see also *Developments in Columbia*, *supra* note 367, at 3 (noting Article 3 of the Colombian Commercial Code, which addresses the conflict between commercial law and commercial custom).

379. See Lemos, *supra* note 283, at 26 (explaining the difficulties involved with trying to make custom legally binding).

380. *Id.*

381. See Oscar M. Becerril, *Current Law in Mexico With Respect to E-Commerce*, 17 ARIZ. J. INT'L & COMP. L. 131, 141 (2000) (noting that in Mexico, a country based on written law, all transactions must be properly documented to be enforced).

382. See *id.* at 141-42 (discussing a proposed draft in Mexico for legislating e-commerce on the Internet that would give full legal force to data transmissions and

Many countries will not consider an electronic message to constitute a valid document for enforcement purposes and an electronic signature will be considered legally invalid.³⁸³ Under current law in many Latin American countries, electronic messages do not constitute writing because a writing “is closely related to the physical paper system.”³⁸⁴ Electronic messages can be “circumstantial evidence of a transaction or a contract, but not as a writing in and of itself.”³⁸⁵ But introducing into evidence an electronic document can be difficult because admissibility depends on the level of secured technology involved and whether the judge is satisfied that the document is authentic.³⁸⁶ In some countries, in order to be legally binding, a contract must be authenticated³⁸⁷ by a notary public.³⁸⁸

Under many legal systems in Latin America, a digital signature does not constitute a signature.³⁸⁹ For a signature to validly evidence a party’s consent it must be “handwritten and it should consist of the signer’s name or corresponding sign executed in the signer’s usual manner.”³⁹⁰ Electronically signed documents lack “proper authenticity, regardless of whether they are secured or not.”³⁹¹ These documents can only be authenticated in the presence of a notary public.³⁹² This forces the parties to produce the documents in the office of the notary and have all involved parties sign the documents in front of the notary.³⁹³

messages, which now are otherwise unenforceable).

383. *See id.* at 141 (stating the Mexican civil code does not consider electronic messages to be valid documents for enforcement purposes).

384. M. Devoto, *Argentina*, in *General Questionnaire*, 17 ARIZ. J. INT’L & COMP. L. 23, 36 (2000) (stating the law of Argentina regarding writing instruments).

385. Nogueira & Ventura, *supra* note 323, at 36.

386. *But see id.* (noting that “[d]ocuments signed electronically are considered to lack proper authenticity, regardless of whether they are secured or not.”).

387. *See id.* at 37 (“A document is authenticated when a public notary validates the legality of the underlying act or document. This validation renders the document legally binding. Authentication can also mean that a document is an exact copy of an original, including all messages and signatures, or both.”).

388. *See* D.C. Bunge, *Argentina*, in *General Questionnaire*, 17 ARIZ. J. INT’L & COMP. L. 23, 35 (2000) (stating that notary publics are required to authenticate the text or signatures of a contract in Argentina); *see also* Nogueira & Ventura, *supra* note 323, at 37 (noting that a notary public is required to validate the legality of a document in Brazil).

389. *See, e.g.*, Nogueira & Ventura, *supra* note 323, at 37 (illustrating that digital signatures carry no weight in Brazil unless authenticated by a notary).

390. Devoto, *supra* note 384, at 36 (explaining a proposed amendment to the Argentine civil code pertaining to written signatures).

391. Nogueira & Ventura, *supra* note 323, at 36.

392. *See* Becerril, *supra* note 60, at 42 (asserting that a notary public must verify that an electronic message was received and printed in his presence to establish legal validity).

393. *See id.* at 42 (stating that the only way to meet the requirement is to use the computer of the notary public and have all involved parties sign before the notary).

Procedurally, e-commerce encounters serious hurdles. Depending on the type of transaction, the weight given to the evidence depends on the amount and type of stamps, seals, or signatures put on certain documents and required by the Code of Civil Procedure.³⁹⁴ It is still uncertain how Latin American judges will handle electronic documents. Few judges are technologically savvy. Many do not have computers, and for several judges Internet access “could still be considered a privilege,” especially outside the main cities.³⁹⁵

Taken in the context of e-commerce invading the Latin American business and legal landscape, “[t]here is a strong feeling that new institutions or practices ought not be adopted without a prior law authorizing them.”³⁹⁶ E-commerce has come into the region at such a dizzying pace that Latin American legal systems have been put off balance by the Internet revolution, and are only now beginning to react.³⁹⁷

B. *Electronic Signature*

Most laws governing commerce in Latin America were enacted prior to the birth of electronic transactions. As such the laws presently on the books in some Latin American countries do not define adequately what “constitutes a signature in the electronic environment and how certain online contracts are formed,”³⁹⁸ thus, those nations are racing to catch up.

But what is an electronic signature? The term denotes a digitally-generated identifier “produced through the use of public key cryptography.”³⁹⁹ An electronic or digital signature is:

[p]art of a message that indicates the source of the message and signifies that the message has not been altered in transit. The person or thing applying a digital signature to authenticate a document must be able easily and efficiently to affix a digital signature, yet to prevent unauthorized use of the private key and the risk of forgery, the signer must have a secure system to keep the

394. See *Developments in Columbia*, *supra* note 367, at 11 (noting the adherence by Colombian legal culture to “excessive formalisms”).

395. See *id.* (discussing the lack of technology prevalent in the Colombian judicial system).

396. MERRYMAN & CLARK, *supra* note 369, at 386 (indicating that the Brazilian legal culture places great emphasis on seeing that all social relations are regulated by extensive legislation).

397. See *supra* notes 381-385 and accompanying text (describing the varied states of readiness in preparing for e-commerce in Brazil, Mexico, and Argentina).

398. Microsoft, *Microsoft, Trade Organizations Call for Improvements to E-commerce Laws in Latin America*, M2 PRESSWIRE, Oct. 1, 1999, at 1, available at 1999 WL 24360148 [hereinafter Microsoft].

399. WRIGHT & WINN, *supra* note 333, at 3-19.

digital signature mechanism safe from threats of misuse.⁴⁰⁰

How is this process accomplished? First, the sender and recipient “must have exchanged public keys prior to sending the digitally signed message.”⁴⁰¹

For a digital signature to be affixed to a message, first the signer runs the message through the hash function to produce the message digest. The message digest is then encrypted with the signer’s private key, and the result is the digital signature which is affixed to the message. Thus, the text of the message is not confidential, but it is now accompanied by a digital signature unique to the message that can be verified only with the use of the signer’s public key.

The verification process takes place when the recipient of the message uses the same hash function as the sender to produce a digest of the message independently. The recipient then takes the public key of the sender and decrypts the message digest from the sender. If the two match, the digital signature has been verified. If a digital signature is removed from the message it was intended to authenticate and attached to a different message, or the original message is modified in any way, then the verification will fail.⁴⁰²

As some Latin American countries are in the process of enacting laws to govern digital signatures and electronic commerce, the challenge seems to be how “to achieve consistency across borders to the treatment of e-commerce, and to conform to traditional free-trade principles embodied in the GATT, the GATS, and the TRIPS agreements.”⁴⁰³

Acceptance of digital signing requires addressing cultural challenges as well as educating the user public on how to use the technology. For instance, there are currently no regional standards for private key security; however, that should change soon.⁴⁰⁴ In a recent U.S. State Department briefing, Trade Representative Charlene Barshefsky noted progress in negotiating the Free Trade Area of the Americas (“FTAA”) agreement slated to go into force in 2005.⁴⁰⁵ Part of the agreement already reached includes placing on

400. *Id.* at 3-20 (defining digital signature).

401. *Id.* (describing the technical process involved in sending a digitally signed message).

402. *Id.*

403. Microsoft, *supra* note 398, at 1.

404. See WRIGHT & WINN, *supra* note 333, at 3-21 (stating that no clear standards exist on how to educate people about how they can maintain the secrecy of their private keys).

405. See USTR Barshefsky Addresses Council of the Americas, at <http://www.usemb.gov.do/IRC/ecocom/council1.htm> (May 2, 2000) (discussing the plans to create a free trade area of the Americas by 2005).

the Internet the various visa and customs requirements for regional trade. Also, negotiations are underway to develop "a series of hemispheric electronic commerce initiatives adopting such measures as privacy principles and the recognition of electronic signatures."⁴⁰⁶

The priority for Latin American countries looking to regulate e-commerce would seem to be the need to address the legality and validity of electronic signatures and security in electronic transactions. Article 7 of the UNCITRAL Model Law on Electronic Commerce ("UNCITRAL")⁴⁰⁷ has provided a useful roadmap and language for Latin American nations moving to define the legality of digital signatures. The Article states:

Where the law requires a signature of a person, that requirement is met in relation to a data message if: (a) a method is used to identify that person and to indicate that person's approval of the information contained in the data message; and (b) that method is as reliable as was appropriate for the purpose for which the data message was generated or communicated, in the light of all the circumstances, including any relevant agreement.

Paragraph (1) applies whether the requirement therein is in the form of an obligation or whether the law simply provides consequences for the absence of a signature.⁴⁰⁸

Argentina instituted laws to govern the use of digital signatures in the national public sector in 1998,⁴⁰⁹ and established a formal infrastructure to regulate the use of digital signatures in official government business.⁴¹⁰ But Colombia's Law 527 was actually the first on the books to regulate digital signatures in e-commerce, followed recently by Peru, which enacted its own digital signature law.⁴¹¹ Chile

406. *Id.*

407. In brief, the UNCITRAL model law establishes provisions governing "any kind of information in the form of a data message used in the context of commercial activities." UNCITRAL MODEL LAW ON ELEC. COMMERCE, Pt. 1, Ch. 1, Art. 1, at 3, U.N. Doc. v. 97-22269 (May 1997) [hereinafter UNCITRAL MODEL LAW]. UNCITRAL was created in 1966 and intended to be an international body for unifying the laws governing international trade. "UNCITRAL is based in Vienna, Austria, and is represented by thirty-six nations from various geographic, economic, and legal systems throughout the world. UNCITRAL accomplishes its work in part by developing model laws and standard documents designed to facilitate international commercial transactions." WRIGHT & WINN, *supra* note 333, at 4-19.

408. UNCITRAL MODEL LAW, *supra* note 407, at 5.

409. See *Decreto No. 427 Sobre Firma Digital para el Sector Publico Argentina*, at <http://www.lafirmadigital.com/legislacion/america/argentina/decreto.htm> (last visited Mar. 10, 2001).

410. See *id.* (indicating that the institution, called the Digital Signature Infrastructure for the National Public Sector, would govern licensing, auditing, and certification of digital signature entities).

411. See *Ley 27269 de Firmas y Certificados Digitales*, at <http://www.lafirmadigital.com/legislacion/america/peru/leyperu.htm> (enacted May 26,

has also enacted a digital signature law⁴¹² that “defines terms like digital signature, private key, public key, and digital certificate.”⁴¹³ At this writing, Brazil,⁴¹⁴ Ecuador,⁴¹⁵ and Mexico⁴¹⁶ have proposed legislation (*proyectos*) on the table, and other Latin American nations are moving quickly toward laws to clarify the validity of electronic signatures. The primary provision is that electronic signatures on electronic contracts are recognized as legal and binding and satisfy the requirements for original signatures “if their integrity and authenticity can be verified by technical means.”⁴¹⁷

The admissibility of electronic records and contracts must also be addressed in the domestic law of Latin American nations, particularly with regard to evidence and legality. Because Latin America has been slow to enact laws governing electronic transactions, there is still much to be done in perfecting the legality of electronic documents, contracts, and signatures if challenged in court. While it is true that much of the law of contracts in civil law countries is covered under the commercial code and civil code, the rigidity of the civil law process poses difficult challenges to electronic commerce, not only at the transactional stage, but also at the litigation stage, should transactions perfected in electronic format be challenged.

The introduction of electronic commerce to the region poses new challenges for lawmakers to redefine what constitutes electronic evidence. The universal norm is that “[p]aper is a trusted medium for holding legal and audit evidence. People know how to use it, and centuries of experience have tested the application of evidence principles to paper documents.”⁴¹⁸ Yet in cyberspace, “[e]lectronic

2000).

412. See *Decreto Ministerio Secretaria General de la Presidencia de la Republica No. 81*, at <http://www.lafirmadigital.com/legislacion/america/chile/decreto.htm> (last visited Mar. 10, 2001).

413. Donoso, *supra* note 345, at 28 (noting that the law applies only to government documents and administrative procedures).

414. See *Dispõe sobre o comércio eletrônico, a validade jurídica do documento eletrônico e a assinatura digital, e dá outras providências*, available at <http://www.natlaw.com/ecommerce/docs/e-commercebill-brazil.htm> (last visited July 17, 2000).

415. See *Proyecto de ley de comercio electrónico, firmas electrónicas y mensajes de datos*, available at http://www.corpece.net/servicios/proyectos/ley_comercio_electronico.htm (last visited July 17, 2000).

416. See *Decreto Por El Que Se Reforman Y Adicionan Diversas Disposiciones Del Código Civil Para El Distrito Federal En Materia Común Y Para Toda La República En Materia Federal, Del Código Federal De Procedimientos Civiles, Del Código De Comercio Y De La Ley Federal De Protección Al Consumidor*, available at <http://www.natlaw.com/ecommerce/docs/e-commerce-initiative-mexico.htm> (last visited Mar. 10, 2000).

417. Vanyi-Robin, *supra* note 74, at 62 (discussing the recognition of electronic documents that satisfy the legal requirements of written documents).

418. WRIGHT & WINN, *supra* note 333, at 5-1.

message technology seeks to eliminate the exchange of paper between commercial parties and minimize the paper records each retains."⁴¹⁹ Latin American legal systems are traditionally overzealous in the generation, certification, and retention of legal instruments.⁴²⁰ So, the move to electronic transactions poses difficult challenges to the way business is done within the legal framework, most particularly in the process of notarization of business contracts and other legal instruments.⁴²¹ How must the commercial and civil codes of Latin American countries be changed if the process of notarization is removed from the electronic transactions normally perfected in the paper world?

Article Nine of the UNCITRAL law provides sufficient language for Latin American nations to embrace, regarding the admissibility and evidentiary weight of electronic contracts:

In any legal proceedings, nothing in the application of the rules of evidence shall apply so as to deny the admissibility of a data message in evidence: (a) on the sole ground that it is a data message; or, (b) if it is the best evidence that the person adducing it could reasonably be expected to obtain, on the grounds that it is not in its original form.

Information in the form of a data message shall be given due evidential weight. In assessing the evidential weight of a data message, regard shall be had to the reliability of the manner in which the data message was generated, stored or communicated, to the reliability of the manner in which the integrity of the information was maintained, to the manner in which its originator was identified, and to any other relevant factor.⁴²²

C. Authentication

Brazil, the largest market for e-commerce,⁴²³ has yet to enact laws specific to the validity of e-commerce transactions,⁴²⁴ relying still on

419. *Id.*

420. See *Issues Paper*, *supra* note 362, at 11 ("Latin America's transactional laws, including the laws of sales, loans, barter, transportation, brokerage, and payments, are still heavily influenced by the nineteenth century civil code policy.").

421. See *id.* at 11-13 (describing the uncertainty inherent in applying pre-existing laws of Latin America to the uncharted waters of e-commerce).

422. UNCITRAL MODEL LAW, *supra* note 407 (regulating the admissibility and evidentiary weight of electronic data messages).

423. See Dawn C. Valdivia, *Panel I: Report On The E-Commerce Activities Of The OAS, ICC, ABA, and UNCITRAL*, 17 ARIZ. J. INT'L & COMP. L. 110, 111 (2000) ("Recent estimates indicate that as much as eighty-eight percent of e-commerce transactions [in Latin America] are concluded in Brazil, followed by Mexico at six percent.").

424. See George Charles Fischer, *E-Commerce Law in Brazil*, 15 COMPUTER L. ASS'N BULL. 27, 27 (2000) ("There are no laws in Brazil dealing specifically with e-commerce.").

formalistic and antiquated commercial and civil code statutes.⁴²⁵ Brazil has no digital signature law, although the São Paulo Chapter of the Brazilian Bar Association has drafted e-document and digital signature legislation.⁴²⁶ Under the current Brazilian law, the 1916 Civil Code,⁴²⁷ the 1850 Commercial Code,⁴²⁸ and the 1990 Consumer Code⁴²⁹ apply to Internet transactions. However, the formalistic requirements set forth by the codes cause problems for the formation, validity and proof of contracts entered into in the electronic environment.⁴³⁰

Under Article Eighty-two of the Civil Code, the validity of a contract is contingent upon the legal capacity of the parties, legality of the object of the contract, and the form required or not prohibited by law.⁴³¹ “Under Brazilian law, contracts need not be written or, when written, formally signed in order to be valid and enforceable (C.C., Art. 129).”⁴³² Digital or other types of secured signatures are not enforceable under Brazilian law, although commercial contracts entered into online “are binding as soon as the parties are in agreement as to the subject matter of the contract, and reduce the terms to writing in the case in which proof in writing is necessary.”⁴³³ Subsequently,

Contracts entered into by epistolary correspondence are deemed to be concluded and binding, as soon as the receiver of the offer sends a reply by letter, accepting the terms of the contract proposed without condition or reserve; up to this point the offer may be withdrawn; except when the proposer has promised to await the reply, and not to dispose of the subject matter of the contract unless his offer has been refused, or until a fixed period had elapsed. If the acceptance is conditional, it becomes binding

425. See *id.* (stating that Brazilian civil, commercial, and consumer laws generally govern contracts).

426. See *Anteprojeto de Lei*, at <http://www.natlaw.com/ecommerce/docs/e-commercebill-brazil.htm> (last visited Mar. 10, 2000); see also Fischer, *supra* note 424, at 28 (indicating that while Brazil has no digital signature law, draft legislation is pending before the Brazilian Congress).

427. Lei n° 3.071 de 1° de janeiro de 1916 Código Civil. See Fischer, *supra* note 424, at 27 (explaining the areas of Brazilian law that apply to e-contracts).

428. See Lei 556, de 25. de junho de 1850 Código Comércio.

429. See Lei n° 8.078, de 11 de setembro de 1990 Código de Defesa do Consumidor (Brasil).

430. See Fisher, *supra* note 426, at 28 (suggesting that courts would likely need to rely on technical experts to determine whether the media and form of acceptance of an e-contract is sufficiently reliable in constituting legal evidence).

431. See *id.* at 27 (stating the legal prerequisites to forming a contract under Brazilian law).

432. *Id.* (describing the ease of forming a contract in Brazil).

433. Código Comercial [C. Co.] art. 127 (Br.), available at <http://www.cd-graf.com.br/legis.htm> (visited May 23, 2001).

as soon as the first proposer gives notice that he agrees to the condition.⁴³⁴

In an online transaction, a contract through e-mail is fully enforceable if the relevant legal requirements and formalities are adhered to under Civil Code, Arts. 1079 and 1086, and as long as there is an acceptance of an offer.⁴³⁵ “Thus, when a prospective customer accesses an electronic page and places an order, a binding contract between offeror and customer is created.”⁴³⁶ Under an e-transaction, the offeror and customer perfect a contract at the very moment the customer transmits an order, “except if: (1) customer reneges before its acceptance reaches offeror, (2) customer undertook to await offeror’s acceptance, or (3) acceptance is not received by offeror by the close of the term of validity of the offer (C.C., Art. 1086).”⁴³⁷

In the world of real-time Internet transactions, contracts perfected in distance transactions are considered perfected between parties. “As a result, failure by offeree to immediately accept an offer that does not contain a fixed term of validity releases offeror from the obligation to honor the offer (C.C., Art. 1081, I).”⁴³⁸

The authority of the Consumer Code in e-commerce transactions⁴³⁹ in Brazil protects the rights of those who would acquire goods through Internet transactions. Brazil recognizes adhesion contracts for the transaction of goods online:⁴⁴⁰

An adhesion contract may be defined as a standardized contract that the seller of a good or service offers to a customer on an essentially “take it or leave it” basis; that is, the adhering party is not afforded an opportunity to bargain. Although many adhesion contracts are signed by the adhering parties, signatures are not prerequisite for validity and enforceability under Brazilian law.⁴⁴¹

Brazil’s Consumer Code also provides remedies to invalidate online contracts under certain conditions, such as if the buyer is unable to fully review the terms of a transaction prior to acceptance, “or if the

434. *Id.*

435. *See* Fischer, *supra* note 424, at 27 (finding that the formation of a valid and enforceable contract by electronic means should be possible under Brazilian law).

436. *Id.* (demonstrating how a valid e-contract may be formed in Brazil).

437. *Id.* (describing circumstances under which the parties of a contract may not be bound to its terms).

438. *Id.* (illustrating the effect of finding “real-time” e-transactions to be contracts between “present” parties).

439. *See* Fisher, *supra* note 426, at 27 (“The Consumer Code accords protection to both individuals and legal entities that acquire goods as end users.”).

440. *See id.* (stating that the sale of goods on the Internet commonly involves adhesion contracts).

441. *Id.*

contractual terms are difficult to understand (Art. 46).⁴⁴² One way to mitigate potential problems to the consumer, such as conducting transactions with minors or unauthorized personnel of a business that conducts transactions online, would be to use safeguards such as encryption, digital signatures, or pre-authorization.⁴⁴³

Notes one Brazilian legal authority on e-commerce:

[T]he most sensitive issue that a plaintiff would face if it had to dispute an e-contract in a Brazilian court is not so much demonstrating that this form of contracting is valid and enforceable, but rather convincing the court that the media and the form of acceptance of the contract are sufficiently reliable to constitute legal evidence. To that end, the court is likely to rely on the opinion of technical experts.⁴⁴⁴

Colombia's electronic commerce law⁴⁴⁵ recognizes the legality of electronic signatures, regulates online commerce, and establishes regulatory authority.⁴⁴⁶ The legality and admissibility of electronic contracts are recognized⁴⁴⁷ "and may not be denied solely because they are electronic contracts."⁴⁴⁸

The issue of "presence" of parties to a contract, as noted in Brazil's Civil Code, is also addressed in Article 850 of the Colombian Commercial Code, "[v]erbal proposal of a business transaction between parties must be accepted or rejected immediately after it is heard. A proposal made by telephone shall be assumed, for acceptance or rejection purposes, to have been verbally made between parties present."⁴⁴⁹ This law has been suitably applied in Colombia to e-transactions, which occur in "real time." Also, under the law, guidelines are established for the sending and receipt of e-mail and for verification of receipt and authorship.⁴⁵⁰

442. *Id.* (demonstrating ways to invalidate an e-contract).

443. *See id.* at 28 (suggesting that the risks involved in e-contracting can be attenuated "by the resort to codes, encryption keys, digital signatures, and certifying authorities").

444. *Id.* (speculating on the issues courts would focus on in legal disputes involving e-contracts).

445. Ley 527 de 1999 Por medio de la cual define y reglamenta el acceso y uso de los mensajes de datos, del comercio electrónico y de las firmas digitales, y se establecen las entidades de certificación y se dictan otras disposiciones.

446. *See* Vanyi-Robin, *supra* note 74, at 62 (outlining legal areas covered by Colombia's e-commerce law).

447. *See* Art. 10 of Ley 527 (1999) (Colombia's Electronic Commerce Law), available at <http://www.natlaw.com/colombia/topical/ec/stcoec>.

448. Vanyi-Robin, *supra* note 74, at 62 (recognizing the validity of e-contracts in Colombia).

449. Colombia Commercial Code, Art. 850.

450. *See* Vanyi-Robin, *supra* note 74, at 62 (noting that Colombia's e-commerce law includes guidelines on e-mail).

IV. EXISTING AND PROPOSED E-COMMERCE LAWS

Clearly, there remains much to resolve in Latin America's new frontier, and laws and regulations governing e-commerce have been slow to appear in Latin America.⁴⁵¹ However, momentum is gaining quickly to modernize the legal system to account for Internet commerce, so much so that some of what is discussed in this paper at the time of writing may be invalid by the time of publication.⁴⁵²

Many Latin American countries are moving ahead with legislation governing electronic commerce, using the e-commerce law drafted by the UNCITRAL as a model for countries to establish protocols and legal requirements conforming to a universal standard of practice and legality in specific areas of electronic commerce such as the formulation and validity of contracts⁴⁵³ and the carriage of goods.⁴⁵⁴

Mexico has also based amendments to its Commercial Code on the UNCITRAL model law, particularly in regard to security in e-commerce.⁴⁵⁵ The Mexican law would recognize the validity of e-contracts, especially in a court challenge, and provide for establishing electronic certification and public key encryption.⁴⁵⁶ Likewise, Ecuador's private sector, led by Corpece,⁴⁵⁷ has presented to the Congress a bill⁴⁵⁸ to regulate e-commerce and guarantee security for online transactions.⁴⁵⁹

It is interesting to note that the European Union (EU) moved assertively in the late 1990s to establish regulations and protocols for

451. See Daniela Ivascanu, *Legal Issues In Electronic Commerce In the Western Hemisphere*, 17 ARIZ. J. INT'L & COMP. L. 219, 219 (2000) ("Electronic Commerce in Latin America has been slower to develop than in North America or Europe, although recent evidence points to a steady growth in the number and value of transactions.").

452. See *Issues Paper*, *supra* note 362, at 13 (describing how several Latin American countries are working to change their laws to include issues involved with e-commerce).

453. See UNCITRAL MODEL LAW ON ELECTRONIC COMMERCE WITH GUIDE TO ENACTMENT, 1996, pt. I, ch. III, art. 11, at 7, U.N. Doc. v. 97-22269 (May 1997) (establishing guidelines on the formation and validity of electronic contracts).

454. See UNCITRAL MODEL LAW ON ELECTRONIC COMMERCE WITH GUIDE TO ENACTMENT, 1996, pt. II, ch. I, at 11, U.N. Doc. v. 97-22269 (May 1997) (regulating electronic commerce in the area of the carriage of goods).

455. See Vanyi-Robin, *supra* note 74, at 62 (noting that Mexico used UNCITRAL model laws as a guide for its proposed modifications to existing law).

456. See *id.* (listing key elements of Mexico's proposed e-commerce legislation).

457. See Corporación Ecuatoriana de Comercio Electrónico (Ecuadorian Corporation of Electronic Commerce), at http://www.corpece.net/servicios/proyectos/ley_comercio_electronico.htm (last visited Nov. 18, 2000).

458. See Proyecto de Ley de Comercio Electronico, Firmas Electronicas y Mensajes de Datos.

459. See Vanyi-Robin, *supra* note 74, at 62 (discussing Ecuador's efforts to regulate e-commerce).

e-commerce in the single market.⁴⁶⁰ The treatment of e-commerce in a market bloc has significant implications for Latin America as trading blocs such as NAFTA and Mercosur evolve.⁴⁶¹ On May 4, 2000, the European Parliament adopted a legal framework for the development of electronic commerce.⁴⁶² Among the planks of the framework are the notions that free-trade in the electronic environment is beneficial for the region and should be pursued so as to protect the tenets of fundamental freedoms,⁴⁶³ and that individual countries must be responsible for e-commerce activity within their own regions:

Information Society services should be supervised at the source of the activity, in order to ensure an effective protection of public interest objectives; to that end, it is necessary to ensure that the competent authority provides such protection not only for the citizens of its own country but for all Community citizens; in order to improve mutual trust between Member States, it is essential to state clearly this responsibility on the part of the Member State where the services originate; moreover, in order to effectively guarantee freedom to provide services and legal certainty for suppliers and recipients of services, such Information Society services should in principle be subject to the law of the Member State in which the service provider is established.⁴⁶⁴

At the same time, the Organization of Economic Cooperation and Development (OECD) has advocated there be no barriers to electronic commerce:

On the premise that new communications technologies will play an increasing role in the economy and society and will be a key factor in making the information society truly global, the Member countries of the OECD have the primary responsibility to create the

460. See Council Directive on Electronic Commerce, 98/0325 (COD) 14263/1/99 REV 1, pt. 17, 9, at http://www.ispo.cec.be/ecommerce/legal/documents/ecom_directive/composen.pdf (Feb. 28, 2000) [hereinafter Council of the European Union] (outlining the history of Information Society Services in existing law).

461. See *Issues Paper*, *supra* note 362, at 10-11 ("Free trade treaties also play an important role in Latin America's embracing of e-commerce. E-commerce is bound to grow rapidly in a region in which international trade itself has grown exponentially in the last decade, particularly since the advent of NAFTA and MERCOSUR.").

462. See *European Commission Information Society Directorate—General, LAW & E-COMMERCE*, at <http://europa.eu.int/ISPO/ecommerce/legal/legal.html#frame> (last visited Nov. 21, 2000 (providing date of adoption of the Directive on Electronic Commerce by the European Parliament)).

463. See Council of the European Union, *supra* note 460 (aligning the freedom of electronic actions to the freedom of expression addressed in Art. 10(1) of the Convention for the Protection of Human Rights and Fundamental Freedoms).

464. *Id.* (suggesting that countries should take legal responsibility for electronic services that originate within their borders).

conditions under which electronic commerce can develop freely, effectively, fairly and prosperously. Sovereign nations will need to come to terms with the global and transfrontier nature of new networks and communication systems and establish a coherent, predictable, legal and regulatory framework in which global electronic commerce can flourish. Responding to the challenges will require broad-based international co-operation among public and private sector entities, both from OECD Member countries and, where appropriate, non-member countries.⁴⁶⁵

What is notable about these two approaches to e-commerce is that regard for personal privacy in international data communication is not uniformly addressed.⁴⁶⁶ For example, the EU's Data Protection Directive (DPD) "prohibits the transfer of personally identifiable data to non-EU countries that do not provide an adequate level of privacy protection."⁴⁶⁷ At the same time, such provisions are not considered, for instance, in the United States, which has "a piecemeal patchwork of different statutes, regulations, and caselaw that provides widely varying levels of protection to individuals depending on the context in which the personal information is collected and used."⁴⁶⁸

The same observation might hold true for Latin American nations as well, although it should be noted that the U.S. Department of Commerce has tried to persuade the EU that self-regulation is "an effective alternative to privacy laws"⁴⁶⁹ issued by a trading bloc of nations.⁴⁷⁰ However, as Latin American economic blocs become more entrenched, the nations involved should consider how the EU and non-government organizations are treating the regulation of e-commerce.⁴⁷¹ If, as has been the case in Latin America, the public sector is slow to respond to the pace of e-commerce development due to the inherent sluggishness of the civil law system, then the private sector will move aggressively and push e-commerce issues onto the

465. *OECD Policy Brief No. 1, supra* note 312 (recognizing the emergence of e-commerce, its importance in the world economy, and the need for countries to work together in its development).

466. *See* WRIGHT & WINN, *supra* note 333, at 4-17 (noting that the European Union's approach to privacy rights is directly at odds with the United States).

467. *Id.*

468. *Id.*

469. *Id.*

470. *See id.* at 4.03[D] (acknowledging that the Commerce Department has failed to convince EU representatives of the benefits of protecting privacy with self-regulatory approaches because of the lack of effective remedies for individuals and lack of access by individuals to personal data stored in databases).

471. *See generally*, WRIGHT & WINN, *supra* note 333, at §§ 4.01-4.05 (describing the measures taken by the United States, the EU, and multilateral organizations such as the United Nations and the Organization for Economic Cooperation and Development to establish a regulatory scheme for the future of electronic commerce).

national agenda of Latin American governments.⁴⁷² Regardless of the domestic policies and laws that individual countries in Latin America create, regulation of electronic commerce in the regional marketplace will require cross-border cooperation and formal agreements, particularly in the areas of financial services and business-to-business transactions.

Concerning specific types of electronic commerce, there is still much to be done in addressing such issues as securities and futures trading electronically,⁴⁷³ or antitrust activities, such as electronic price fixing or monopolistic trading, taking place over the Internet.⁴⁷⁴ Money laundering is another criminal activity suitable to electronic commerce.⁴⁷⁵ How Latin America addresses these challenges, either as individual nations, as nations embracing model laws, or through the formation of trading blocs with a common jurisdiction, will determine the ultimate success and indemnification of e-commerce in the region.

Latin American nations must also adapt domestic laws and form international agreements to cover criminal activity in e-commerce.⁴⁷⁶ Electronic fraud, particularly in the areas of tax law, securities regulation, and computer crime will grow in proportion to the expansion of Internet commerce in the region.⁴⁷⁷ Detecting and preventing fraud and assessing and attaching liability should be placed high on the national agendas for e-commerce legislation, particularly as the codified laws of Latin America may in some cases have no precedent as would be established under common law

472. See *Conferences and Seminars, The Internet in Latin America: Investigating the Boom*, LATIN AM. NEWSLTRS, at http://www.latinnews.com/consem_images/conf_internet.htm (last visited Nov. 13, 2000) (insisting that the development of e-commerce in Latin American countries will depend heavily on government action, alone or in combination with the private and non-governmental sectors).

473. See WRIGHT & WINN, *supra* note 333, at 11-5 (explaining that false electronic records could cause violations of securities regulations and state corporate laws that require the disclosure of financial reports to shareholders or government).

474. See *id.* at 18-4 (asserting that a potential problem in electronic markets is that the added volume and quality of information about competitors may give rise to the possibility of price fixing in some instances).

475. See *id.* at 11-2 (noting that computer processing facilitates fraud or deceit schemes that otherwise would be more difficult if undertaken manually in accounting books).

476. A possible model for Latin American countries is the federal Computer Fraud and Abuse Act in the United States, which imposes criminal liability for gaining unauthorized access into a computer related to the federal government, financial institutions, or interstate commerce. See *id.* at 11-9.

477. See WRIGHT & WINN, *supra* note 333, at § 11.02 (explaining that whenever companies shift from manual to automated systems, new opportunities for fraud can arise).

practice.⁴⁷⁸ For instance, the creation of a false record in an e-commerce transaction, under the common law, would constitute misrepresentation.⁴⁷⁹ However, there may not be a criminal provision for such an act under the civil law of some Latin American countries. Likewise, the securities laws of some Latin American nations may not have provisions for situations in which false electronic records lead to false reporting under a nation's securities regulations.⁴⁸⁰ There may also be a lack of civil remedies for damages to be assessed by victims of e-commerce crimes, particularly if the crimes involve fraudulent activities or breaches of contract in cross-border transactions.⁴⁸¹ The problem again points to the issue of mutual agreements or the adherence to a uniform law adopted by Latin American nations such that jurisdiction will apply across international boundaries.

V. THE FUTURE OF E-COMMERCE IN LATIN AMERICA

Based on the strong demand for U.S. products in Latin America, as well as the potential to make a great deal of money in the new Latin American markets, private international investors are taking the initiative in backing Latin American Internet companies and e-commerce start-ups.⁴⁸² Recognizable names include Bank of America Equity Partners, Sony, and J&W Seligman (all backing Yupi.com), Chase Capital (backing MercadoLibre.com, Patagon.com, StarMedia.com and Viajo.com), America Online Latin America (backing Español.com), and Microsoft working with Telmex.⁴⁸³ New to many homegrown Latin American Internet enterprises is the financing of start-ups through initial public offerings, a tried and true

478. *Cf. id.* § 11.04 (describing the criminal laws and civil penalties that the United States has enforced against individuals and businesses committing electronic business fraud).

479. *See id.* at 11-7 (asserting that the intentional falsification or destruction of electronic business messages or records could implicate any number of criminal statutes and invoke a negative inference in criminal or civil litigation).

480. *But cf.* Section 18 of the United States Securities Exchange Act of 1934, (penalizing any false or misleading statements that are made in disclosure filings with the Securities and Exchange Commission). *See id.* at 11-5.

481. Perhaps Latin American nations should follow the example of a provision such as Section 10(b) of the 1934 Securities Act, which gives a private cause of action in favor of investors against management and also provides the SEC the right to take civil action. *See id.* at 11-6.

482. *See U.S. Investors Spin the Latin Web*, LATINFINANCE, Feb. 2000, at <http://www.latinfinance.com/latinfinance/magazine/feb00/1f-01.html> [hereinafter *U.S. Investors*] (advancing the prediction of Wall Street investment bankers that in the year 2000, ten to fifteen Latin Internet companies could go public on the Nasdaq).

483. *See Who puts up the money? Special Reports, The Internet in Latin America: Monitoring the Boom*, LATIN AM. NEWSLTRS., Apr. 2000, at 12 (listing sources of investment for recent projects in Latin America) (citing as source Redhering.com).

venture capital strategy in the Silicon Valley.⁴⁸⁴ Early results indicate that Latin American start-ups using public offerings to raise capital have done very well thus far.⁴⁸⁵ Forecasters predict that more than fifty such companies could be trading on the Nasdaq by 2001.⁴⁸⁶

Latin American start-ups that have attracted investors and gone public are Internet portals that provide businesses with access to the Internet superhighway.⁴⁸⁷ The large capital Internet providers are moving into Latin America as portals, including America Online and Microsoft, which have formed joint ventures with Latin American portal start-ups.⁴⁸⁸ Despite the beating the Nasdaq sustained during the first half of 2000, the capital raised by start-ups from public offerings has been staggering.⁴⁸⁹ “StarMedia Networks, the Latin portal based in New York [City], was the pioneer issuer with its May 1999 Nasdaq IPO that raised \$105 million. By the end of the year, its share price had doubled.”⁴⁹⁰ In September 1999, Hewlett-Packard Company teamed up with Star Media to offer procurement and consumer retail services with a “24-hour turnaround of online merchant [identifications], browser-based store-building and secure online-payment processing.”⁴⁹¹ An Argentine portal, El Sitio, saw a 150% price increase on its first day on the Nasdaq.⁴⁹² Since then, El Sitio has secured \$44 million more in backing from General Cinema Theatres and Bear Stearns investment house.⁴⁹³

484. See *U.S. Investors*, *supra* note 482, at 19 (advancing the prediction of Wall Street investment bankers that in the year 2000, 10 to 15 Latin Internet companies could go public on the Nasdaq).

485. See, e.g., Kennedy, *supra* note 264 (indicating Terra Network, an affiliate of Telefónica of Spain, held an initial public offering in November 1999 that raised more than \$10 billion in capital).

486. See *U.S. Investors*, *supra* note 482, at 19 (emphasizing that since the Nasdaq composite index rose 85.6% last year, Internet companies as well as their backers will hurry to bring deals to the market while the market is strong).

487. See *id.* (finding that in addition to providing Internet access, these portals also include their own content and services).

488. See *id.* (reporting that Microsoft has teamed up with Telmex in Mexico and Globocabo in Brazil, while America Online has a 50-50 joint venture with the Cisneros group in Venezuela).

489. See *id.* (explaining that as U.S. private investors are attracted to the activity in the dot-com area in Latin America, the Nasdaq listing provides a reliable exit strategy to cash in their profits).

490. *Id.*

491. Hillebrand, *supra* note 287 (advancing the idea that through the “Commerce for the Millennium” project, Latin American merchants will have the ability to host Web stores for “reasonably low prices” and have access to StarMedia’s online shopping community).

492. *U.S. Investors*, *supra* note 482, at 18 (explaining that El Sitio has energized other Latin American portals to go public, e.g., Yupi, a portal based in Miami that is America Onlines’ Latin American joint venture with the Venezuela Cisneros group).

493. See Robert Conlin, *Spanish Language Portal Opens Door to \$44 Million Funding*, E-COMMERCE TIMES, June 23, 1999, at <http://www.ecommercetimes.com/news/>

In the United States, it appears Miami quickly is becoming a primary e-hub to Latin America.⁴⁹⁴ At the same time, Argentina also has established itself as an import e-hub as a result of the deregulation of the telecom infrastructure, which resulted in reductions in connection charges and fees by as much as fifty percent.⁴⁹⁵ Furthermore, the enthusiasm of investors in the United States, who have the capital and practical experience necessary to grow Internet portals and network businesses, has contributed to Argentina's rapid development in this area.⁴⁹⁶

The fact, however, that much e-commerce traffic in Latin America would still be managed "offshore" in the United States and Europe raises some question as to Latin America's ability to control its own destiny in cyberspace, particularly when so much of the private investment capital comes from investors in the United States anxious to make fortunes at the same break-neck speed that occurred with the Internet revolution in the United States.⁴⁹⁷ "Research firms like International Data Corp. and Forrester Research forecast Latin American Internet advertising revenues to grow to \$645 million by 2003 from just \$20 million in 1998. E-commerce transactions should rise to \$8 billion in 2003 from \$170 million in 1998."⁴⁹⁸

The rapid growth in venture financing raises some concern about overvaluing Internet companies, concerns many have raised in the months since American dot-com companies began sliding on the Nasdaq.⁴⁹⁹ Noted one investment banker, "[t]here is so much money chasing deals that it is getting dangerous . . . [t]hey are pushing up the value of companies that are not ready to receive money."⁵⁰⁰ Add to this that Latin American investors do not share the same sense of risk taking American investors have grown used to over the years.⁵⁰¹

articles/990623-4.shtml (finding that El Sitio's success in obtaining financing is noted as "one of the largest first-round private equity placements in the e-commerce industry.").

494. See Frank Alvarado, *Telecos in Final Negotiations Over Downtown Miami Internet Hub*, MIAMI DAILY BUS. REV., June 12, 2000, at A1.

495. See Warn, *supra* note 100 (explaining that deregulation is working to change both the real and perceived costs of going online).

496. See *id.* (indicating that Argentina has experienced a wave of Internet start-ups in the past two years, with local entrepreneurs raising an enormous amount of capital from U.S. investors).

497. See *U.S. Investors*, *supra* note 482 (suggesting that American investors believe that Latin America is at the same stage as the U.S. Internet market was four years ago, and they expect to see similar, if not faster, growth patterns).

498. *Id.*

499. See *id.* (admitting that several veteran investors are complaining that for Latin America, valuations are rising too high).

500. *Id.*

501. See *id.* (indicating that the arrival of the Internet revolution and U.S.-style venture capitalism is forcing local financiers in Latin America to reexamine their old

“But venture capitalists in Latin America cannot match the sophistication of U.S. investors used to backing loss-making Internet companies. It is still anathema to most Latin investors to put money into a six-month old company that may only start generating positive cashflow five years down the road.”⁵⁰²

Yet, many of the Latin American start-ups are viewed as relatively safer “than putting money into existing businesses where suspect accounting or contempt for minority investors are frequent problems.”⁵⁰³ Start-ups in Latin America “also tend to be headed by enthusiastic U.S.-educated entrepreneurs comfortable with American business methods.”⁵⁰⁴

In an effort to remain competitive in the growing Internet business terrain, Internet providers, portals, and e-commerce start-ups are also looking for large investment capital to expand across borders into other countries in Latin America where home grown competition is not yet on the move.⁵⁰⁵ Portal companies in Mexico and Brazil are aggressively expanding into other Latin countries in order to hedge local competition with less operating capital.⁵⁰⁶

Latin American banks had been following venture capital growth from the sidelines until just recently.⁵⁰⁷ “Bradesco, Brazil’s biggest bank, owns 20% of non-voting shares in Multicanal, a company that will offer customers high-speed Internet access.”⁵⁰⁸ The bank plans to offer other online financial services.⁵⁰⁹ A Spanish parent bank, BBV, which owns many banks throughout Latin America, is in the process of establishing regional Internet banking services.⁵¹⁰ Not to be left

prejudices against supporting risky new start-ups).

502. *Id.* Despite this lack of experience, Latin investors quickly are starting to fund Internet companies. For example, Exxel, the leading Latin private equity financier in Buenos Aires, funded Latin Stocks, an online Internet financial services company which intends to trade regional stocks, bonds, and mutual funds. *See id.*

503. *U.S. Investors, supra* note 485 (observing further that start-ups are more attractive than existing businesses because they are less likely to have unpaid tax or social security bills).

504. *Id.* (articulating that the relatively small sums committed to the region and big returns seem to make these investments irresistible).

505. *See id.* (quoting representatives from Eversystems, a company providing Internet-based financial software for banks and brokerages, as suggesting that although the company does not need outside money to finance itself, investment capital is required to expand).

506. *See id.* (determining that strong companies with a Nasdaq listing should be able to use their stock to buy weaker competitors once the expected consolidation phase sets in).

507. *See U.S. Investors, supra* note 482 (reiterating that some of Latin America’s biggest banks are beginning to invest in cyberspace).

508. *Id.*

509. *See id.* (detailing that the bank soon will have a proprietary Internet service provider offering free access plus shopping sites).

510. *See id.* (admitting that although the banks are taking an interest in the

out, in December 1999, “Banamex, Mexico’s biggest bank, announced a joint venture with the U.S.’s Commerce One to set up a business-to-business, web-based marketplace for Latin America that they plan to take public. Market reaction was immediate: Banamex’s market capitalization rose by almost \$900 million the day it made the announcement.”⁵¹¹

In Argentina, the media, advertising and public relations industries are sophisticated and international in reach, with a large pool of talent from which to draw.⁵¹² “The penetration of cable television, providing a potential alternative platform for Internet access, is the highest in the world outside North America at 60 per cent of households.”⁵¹³

Likewise, Telefónica, has teamed up with the state government of São Paulo to provide high-speed Internet connections to thousands of schools by December 2001.⁵¹⁴ The joint venture with the government confirms the Brazilian government’s commitment to social and commercial development, and is viewed officially as an important step in the process of democratizing the Internet.

There is another side to the potential of e-commerce in the region—the opportunity to be a catalyst for social equality and new prosperity for small businesses, ethnic minorities reliant on indigenous enterprise such as folk art and tourism, and small farmers seeking direct access to global markets. The Dominican Republic is moving in this direction with the help of funding from international investors, particularly from Japan.⁵¹⁵ Presently, the Fernandez administration is hoping to link isolated farming communities via the Internet through a project called Intelligent Communities.⁵¹⁶ The goal is to establish Internet centers “in order to help campesinos transcend the communication barriers imposed by isolation, and give them access [to] technological information about crop planting and harvesting.”⁵¹⁷

Internet, few seem keen to support the new generation of Latin entrepreneurs).

511. *Id.*

512. *See generally* Warn, *supra* note 100 (outlining the advantages Argentina boasts as an ideal location for Internet start-ups, including the high literacy rates, skilled labor, and a technical infrastructure).

513. *Id.*

514. *See Telefonica to Invest R\$300m in Infrastructure*, GAZETA MERCANTIL INVEST NEWS, May 29, 2000.

515. *See Global News Analysis*, *supra* note 149 (noting the Dominican president’s desire “to harness the twin forces” of globalization and the communications revolution to boost his country’s economy).

516. *See id.* (adding that the technology was developed by the Massachusetts Institute of Technology).

517. *Id.*

CONCLUSION

No doubt, if the recent downturn in dot-com start-ups in the United States is any indication, there will be a shaking out period where struggling Latin American e-commerce ventures cannot survive the push by the major Internet companies into the region. Many e-commerce enterprises are in place and ready to do business, but cannot move forward at the rate desired until the telecom infrastructure, international taxation and tariff regulations, internal laws regulating commercial transactions online, and changes in consumer capabilities (more personal computers, more cost effective access, changes in how Latin America shops) are in place.⁵¹⁸ It remains to be seen if the realities of Latin America will meet and exceed the expectations and forecasts of industry experts.

E-commerce executives with an eye on Latin America need to keep in mind that the “tropicalization” of foreign models for development and regulation do not necessarily promise success in the region. Each Latin American country must address its own unique cultural and economic particularities. Successful e-businesses take a holistic view of their business and a realistic view of the Internet, and in order to remain competitive in the Latin American marketplace, e-entrepreneurs must find ways to innovate and create new value for somewhat skeptical or hesitant Latin customers.

Vision, leadership, courage and innovation are critical to a successful e-business.⁵¹⁹ The first premise for Latin American e-businesses to accept and work with is that the Internet is inherently imperfect.⁵²⁰ Hence, to succeed one must forget about perfection. The road to success means changing the traditional structures and expectations, while being prepared to address disruptions and problems with fluidity and flexibility.⁵²¹

Latin American technocrats must embrace a dynamic business structure grounded on the six “Cs”:⁵²² commerce (the ability to provide a reliable interface between suppliers and consumers);

518. See *supra* Parts II.B.1, III.B.2, III.D and accompanying notes.

519. See Lauren Bielski, *E-Business Models Stress Putting the Customer First*, ABA BANKING J., July 2000, at 70 (voicing the views of Mary Pat McCarthy, co-author of *Digital Transformation, The Essentials of E-Business Leadership*, that developing an e-commerce strategy requires the need for vision and the need to embrace imprecision).

520. See *id.* (noting that businesses need to recognize that the Internet is disruptive and that waiting for perfection will result in foregone opportunities).

521. See *id.* at 76 (noting that Internet ventures should be treated as a work in progress that require experimentation and reworking of the model when necessary).

522. See *id.* (noting that the six c's are important factors for consideration when planning an Internet venture).

content (using the technology to address accurately the needs and interests of the end user); cost (making e-commerce financially viable for businesses and affordable for consumers); community (knowing the capabilities of the technology to address the needs of businesses and consumers); and collaboration (the ability to form and retain strategic alliances between investors, providers, and government entities).⁵²³

An important question to be considered in the face of this Internet boom, however, is whether Latin America's new generation of entrepreneurs are really new visionaries or just a new form of the old guard of corrupt, elite, and entrenched businessmen and oligarchs.⁵²⁴

Latin America offers global competitive manufacturing facilities and raw materials. Expanded geographic reach via online markets can overcome the region's significant geographical boundaries, enlarge the Latin American marketplace, and create great competition. But the path to greater prosperity through Internet commerce in Latin America will be a perilous journey with many delays, setbacks, and not a few casualties. The rewards, however, are potentially epic in proportion for the process of democratization, economic and social development, and personal and societal enrichment.

523. See generally KEYUR PATEL & MARY MCCARTHY, DIGITAL TRANSFORMATION: THE ESSENTIALS OF E-BUSINESS LEADERSHIP (2000), cited in Kathleen Doler, *Review: E-Business Primer*, 26 ELEC. BUS. 126 (2000).

524. See Matt Moffett, *A New Latin America Faces a Devil of Old Rampant Corruption*, WALL ST. J., July 1, 1996, at A1 (acknowledging that with the billions of dollars of foreign investment flooding the region, the temptations for corruption are greater than ever before).