THE ELECTRONIC SILK ROAD

THE WORLD IN

COMMERCE

ANUPAM CHANDER

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INTRODUCTION

Tracing a Silk Road Through Cyberspace

The Silk Road linking the ancient world's civilizations wound through deserts and mountain passes, traversed by caravans laden with the world's treasures. The modern Silk Road winds its way through undersea fiber-optic cables and satellite links, ferrying electrons brimming with information. This electronic Silk Road makes possible trade in services heretofore impossible in human history. Radiologists, accountants, engineers, lawyers, musicians, filmmakers, and reporters now offer their services to the world without passing a customs checkpoint or boarding a plane. Like the ancient Silk Road, which transformed the lands that it connected, this new trade route promises to remake the world.

Today the people of the world are engaged in international trade with a greater intensity than ever before in human history. The subjects of international trade, too, are far more personal than ever before. They implicate our habits and hobbies, our travels, our communication, our friends, our politics, our health, and our finances. As our lives increasingly are reflected online, the range of activities subject to international trade grows. Services now join goods in the global marketplace, with workers in developing countries able to participate in lucrative Western markets despite immigration barriers and Western enterprises able to reach a global audience, often free of tariffs or local bureaucracies.

In 2012, Apple announced that leading carmakers from across the world, from Mercedes-Benz to Toyota, would soon install buttons in their vehicles allowing direct access to Siri, Apple's voice command system. Siri interprets natural human speech, thus allowing the driver to ask the computer assistant to send messages, select music, check stock prices or the weather, or even make restaurant reservations. These buttons will also bring Apple's music and videoretailing service, iTunes, into automobiles around the world. Siri is a cloud-based service, meaning that it performs the bulk of its processing not on the user's computer (or in the user's car) but far away in some computer farm. Apple's Siri processes the commands it receives in California. Debuted in English, Siri now understands Mandarin and a host of other major human languages. Drivers on roads from Marrakesh to Mandalay will soon be talking directly to Cupertino, California, to get directions or plan dinner.

This radical shift in the provision of services becomes possible because of advances in telecommunications technologies. This is the rapidly growing phenomenon I call *net-work*—information services delivered remotely through electronic communications systems. Net-work encompasses not just the services outsourced to Accra,

Bangalore, or Manila but also the online services supplied by Silicon Valley to the world. *Apple, eBay, and Yahoo!, too, are exporters of information services, revealing the Internet to be a global trading platform.* Silicon Valley enterprises serve as the world's retailers, librarians, advertising agencies, television producers, auctioneers, travel agents, and even romance matchmakers. Silicon Valley's ambition is no less than to become middleman to the world.

Many of the services made possible by the Electronic Silk Road are so new that they are hardly recognizable as trade. After all, many of the services appear to be free, more gifts than exchange. A computer voice assistant like Siri does not resemble any traditional service, except perhaps a butler. To add to the mystery, even the word services defies definition. The leading international treaty on services, the General Agreement on Trade in Services (GATS), forgoes a definition. The Economist magazine offers a quip, in lieu of a definition, calling services the "products of economic activity that you can't drop on your foot." Disputes brought before the World Trade Organization (WTO) now often turn on whether something is a service. In Canada-Periodicals, Canada argued that because magazine advertising was a service, not a good, any obligation not to impose taxes on US goods did not apply to taxes on magazine advertising.1 In China-Audiovisual, China claimed that electronic distribution of US audio products did not constitute "sound recording distribution services."2 Both claims proved unavailing, as we will see in chapter 6. The economist Jagdish Bhagwati observes that as late as the 1970s many in his profession did not believe that services were susceptible to international trade on the belief that they must be consumed at the point of service, an idea he ridicules as the "haircuts" view of services.3

Even as they defy easy characterization, such services are powering economic development across the world. India has emerged

unexpectedly as a powerful global trader, with new global multinational corporations often based in Bangalore offering advanced information services to companies around the world. American firms, largely centered in Silicon Valley, use the Internet to offer old and new services to the world's consumers. Increasingly, if a company in Germany or Ghana wants to reach its own compatriots, it needs the help of a firm in Silicon Valley. In such cases, advertising is hardly the only economic activity crossing borders. Some of the activity has traditional precedents, such as travel agencies, news services, or brokerage services. Other activity lacks analogs in traditional commercial services, such as information search services, dating services, restaurant reservations, or software (or "app") clearinghouses. Having emerged as its home country's biggest music retailer in the span of merely five years from launching into the business, Apple hopes to become the world's leading audiovisual entertainment retailer as well.4

The existing infrastructure of trade, developed over millennia for a paradigm of goods, proves inadequate either to enable or to regulate this emerging Trade, version 2.0. The WTO and regional arrangements such as the European Union, North American Free Trade Agreement (NAFTA), and ASEAN (Association of Southeast Asian Nations) commit nations to liberalize barriers to trade in services, but these broad mandates have found little elaboration to date. Net-work companies, lacking legal precedents or authoritative guidance, must innovate not only technological methods and business models but also legal structures that span the globe. Net-work trade has yet to develop counterparts to the medieval *lex mercatoria* that helped resolve commercial disputes among European traders, the bills of lading that helped resolve shipping disputes during the last century of international trade, and other conventions on contracting that emerged over centuries of experience with trade in goods.

The risks to interests such as privacy and financial security from net-work are evident. Google's privacy officer observes that "every time you use a credit card, your details are passed through six different countries."5 The difficulty of enforcing rights—or even demarcating them—across the World Wide Web is enormous. If an event in cyberspace occurs both "everywhere and nowhere" (in the words of a former Grateful Dead lyricist), whose law governs? But there is a more fundamental risk. While there have been earlier eras of globalization, characterized by cross-border flows of people, goods, and capital, the globalization of services today poses a unique challenge to regulation. When individuals migrated to provide services, they could be expected to conform to the laws of their new home. When people desired goods banned locally, they would have to make a run across a county line and smuggle them home. But cybertrade enables individuals to provide or receive services across the globe without leaving home. Will work be performed from jurisdictions without adequate protections? Is law itself at risk, now avoidable by a mere single click?

The jurisdiction-hopping implicit in cybertrade poses hurdles for the enforcement of law. Consider two famous examples from the past decade. Kazaa, long the leading peer-to-peer file trading system, was founded in the Netherlands by a Swede and a Dane, programmed from Estonia, and then run from Australia while incorporated in the South Pacific island nation of Vanuatu. The online gambling site PartyGaming was founded by an American lawyer and an Indian expatriate programmer and run from head-quarters in Gibraltar, using computer servers on a Mohawk Indian reserve in Canada, a London marketing office, and a workforce based mainly in Hyderabad, India. Where regulation is oppressive and contrary to universal human rights, such evasion should be encouraged, not condemned (an issue we turn to in chapter 9). But

for liberal democratic states, the ability to exploit the Internet to perform an end run around local law is troubling. Left unattended, cybertrade from everywhere and nowhere might imperil domestic laws, replacing local law with the regulation, if any, of the net-work provider's home state. I argue that the importing of services should not require us to import law as well.

At the same time, trumped-up fears of foreign service providers can support protectionist policies, shielding domestic industries from the bracing glare of global competition. In response to a campaign by a public sector union, the Canadian province of British Columbia now requires public entities that send personal information abroad for processing or storage to do so only with the specific permission of the data subjects. This rule makes it practically impossible for a British Columbia public university to use Gmail even if students have consented to the use of Google's services. The 2012 provincial guidelines implementing the law declare that if a student's "email contained the personal information of the friends she made during spring break, the public body would have to get their consent too." Fear of foreign service providers has been used against enterprises from Bangalore as well. In 2005, New Jersey passed a law requiring that "all services under State contracts or subcontracts be performed within the United States." Other states, including Alabama, Colorado, Illinois, Indiana, North Carolina, South Carolina, and Tennessee, have legislated a preference for local suppliers in their government procurement contracts. Ohio governor Ted Strickland instituted such a preference by executive order. A proposed federal bill, promoted by the Communications Workers of America, would deny federal loans to American companies that send call-center jobs overseas.

By recognizing the phenomena of outsourcing and the information services as being different species of net-work, it becomes possible to recognize the stake we all have in promoting trade. It unites Silicon Valley and Bangalore in a common cause for free trade. It also makes it harder to vilify one or the other, as many of the countries of the world increasingly hope to be exporters of one or both types of net-work. Countries vying to nurture the next Silicon Valley or Bangalore might be reluctant to encumber such trade.

The pressure on law from both kinds of net-work is clear. Consider some transnational flashpoints from the first decade of the twenty-first century: Antigua's WTO challenge to US rules barring online gambling; the outsourcing of radiology to India; Brazil's demands to Google to identify perpetrators of hate speech; an Alien Torts Statute suit in the United States charging Yahoo! with abetting torture in China; a WTO complaint brought by the United States against Chinese state media controls on foreign movies, financial information, and music such as iTunes. These cases reveal the unsettled legal issues at stake in cybertrade, from jurisdiction to protectionism, from consumer protection to human rights.

Services constitute an increasing bulk of human economic activity. ¹⁰ In 2011, the value of trade in commercial services in official reports was more than \$4 trillion, nearly one-fifth of all world trade. ¹¹ Yet for much of its history, the legal regime governing international trade neglected services in favor of liberalizing commerce in goods. But as Western economies became increasingly service-oriented, they began to recognize the opportunities for export in telecommunications, media, financial, and other services. Business leaders from three proudly "American" corporations—American Insurance Group, American Express, and Pan Am—propelled the US government in the 1970s to seek to liberalize trade in services. ¹² Such efforts in the Uruguay Round of trade negotiations resulted—over developing nation opposition—in the General Agreement on Trade in Services, forming one pillar of the World Trade Organization established in

1995. GATS subjected services for the first time to the international trade regime's far-reaching disciplines. Regional arrangements go further still. The European Union has ambitiously declared a Single European Market, seeking "an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured." Both NAFTA and the Central American Free Trade Agreement (CAFTA-DR) require national treatment and market access for service providers across their respective regions. America's new bilateral free trade agreements with Australia, Bahrain, Chile, Colombia, Morocco, Oman, Peru, and Singapore all include broad obligations to liberalize services. Southeast Asian nations have promised to create a free trade zone including services by 2015.

Free trade's apostle was David Ricardo, an Englishman who in 1817 offered one of the most influential insights economists have yet brought. Contrary to the reigning mercantilism of his day, Ricardo showed that countries that traded with each other would each stand to gain from the trade. Ricardo began by hypothesizing two countries, England and Portugal, each of which produced both wine and cloth, with closed borders. A bit of simple multiplication and addition is all one needs to show that if each state produced the good for which it had a comparative advantage, there would be a greater total amount of both wine and cloth (or at least more of one of the two and an equal amount of the other), which could now be traded to mutual advantage. The same arithmetic can show the superiority of specialization and trading anything for which humans create, from accounting to engineering.¹⁶

Yet with the advent of trade in services such as these, a vocal minority has raised doubts about free trade in services. Some worry that liberalization will erode the wages or threaten the livelihoods of workers now forced to compete on a global stage. A few hold that Ricardo's insight about the mutual benefits of trade in goods cannot

be readily extended to services. Economists Alan Blinder and Paul Samuelson, the latter a Nobel laureate, have raised questions about the benefits of cross-border outsourcing of services to rich countries like the United States. Blinder, however, does not counsel protectionism but rather advocates increased support for displaced workers.¹⁷ It must also be kept in mind that critics of such trade do not include the benefits to American enterprise and American workers from trade in such services conducted by Silicon Valley. Google and Facebook earned 54 and 50 percent, respectively, of their income abroad in the first half of 2012.18 It will be difficult for the United States to decry the entry of information service providers from Bangalore while pressing for the liberalization of information service providers from Silicon Valley. And the same is true of India. The great majority of economists believe strongly in free trade in both goods and services. As the Wall Street Journal has noted, the few critics represent a "minority among economists, most of whom emphasize the enormous gains from trade."19 Ricardo's theory itself applies to all trade, whether trade in food and clothing or trade in information. Countries across the world now vie to be both the next Silicon Valley and the next Bangalore, and they must embrace the flow of trade in both directions. At the same time, governments must retrain persons dislocated by the disruptive force of technology and provide a social safety net to take care of those who are most imperiled.

The promise of Trade 2.0 is enormous. The changes wrought to commercial practices are no less revolutionary than those described by Alfred D. Chandler Jr. in his classic twentieth-century business study, *The Visible Hand: The Managerial Revolution in American Business*. Sellers of both goods and services now can have direct contact with their consumers around the world, and vice versa. Individuals and companies can find new purchasers for their services across the globe. Consumers now find their choice of providers

increased manyfold. Like the globalization of manufacturing, the globalization of services promises to boost efficiency, facilitating economies of scale and spurring investments in human capital. Increasingly, the bulk of humanity will find itself involved in trade along this Electronic Silk Road.

Through the Khyber Pass or around the Cape of Good Hope, merchants have long made arduous journeys laden with the world's treasures. Trade law developed with such merchants in mind. Law accommodated trade conducted over the high seas, the Silk Road, and the Grand Trunk Road, not through undersea fiber or via satellite links. Trade depends on the legal environment in two crucial ways: first, the law must dismantle protectionist legal barriers erected through history (this is the standard focus of teaching and writing in international trade law); second, the law can facilitate cross-border trade by erecting a legal infrastructure to reduce uncertainty in international transactions (this is the standard focus of teaching and writing on international business transactions). Let us label both features of the legal environment, taken together, the Trade Plus regime. A Trade Plus regime crafted for goods is unlikely to serve well the demands of the burgeoning trade in services delivered through the ether.

This book proceeds as follows. The first part reviews controversies in cybertrade, which demonstrate both the need to remove legal obstacles to cybertrade and the need to protect the capacity of states to regulate themselves. The second part offers principles that seek to achieve this balance. Freeing cybertrade requires a commitment to two principles: (1) a technological neutrality principle that rejects attempts to bar net-work because of its electronic nature; and (2) a dematerialization principle by which states undertake to dematerialize the services infrastructure—that is, to make physical presence unnecessary for authentication, notification, certification, inspection, and even dispute resolution.

The footloose nature of cybertrade raises the specter of two races to the bottom: a deregulated world in which service providers decamp to minimally regulated jurisdictions from which they supply the world; and an overly regulated world in which some service providers eager to maximize revenues become complicit in state repression. To curtail the race to the deregulated bottom, I suggest the occasional necessity of legal *glocalization*—requiring a global service to conform to local rules, where both the rules and their assertion to a particular transaction are consistent with international legal norms. Glocalization rejects protectionism yet maintains local safeguards over culture and security; it resolves the dilemma of net-work, navigating between the Scylla of protectionism and the Charybdis of laissez-faire.

But will this assertion of local law tear apart the global web into local fiefdoms? The key to avoid this tearing apart of the web is to limit local demands on global e-commerce to important issues. International and domestic US law constrains excessive extraterritoriality while international trade law counsels us to work toward global standards. In order to promote a flourishing cybertrade beneficial to both the world's service providers and its consumers, states will have to work toward legal *harmonization* wherever agreement may be found. Thus I suggest this rule: harmonization where possible, glocalization where necessary.

To disrupt the race to the oppressive bottom, I argue that cybertraders should establish ground rules to, at a minimum, *do no evil*. Here, I flesh out the maxim that Google officially embraces. Given that authoritarian regimes function by repressing information, information service providers will always be the locus of such repression—and the potential route for subversion.

The book is divided into two parts. In the first chapters I illustrate the challenges of Trade 2.0 through case studies. In the second

part I offer a framework for breaking down barriers to free trade while protecting public policy objectives. To help readers interested in different sections of the book, I sketch below the arguments in each chapter of the book.

Chapter 1. The New Global Division of Labor

Where the industrial age led to a global division of labor in manufacturing, the information age expands that global division into services. Once theorized as nontradable, services now join goods in the global marketplace, allowing workers in developing countries to participate in lucrative Western markets despite immigration barriers and Western enterprises to reach a global audience, often free of tariffs and even absent a local distribution network. This marks a major shift in the organization of production, as technology shifts the calculus determining the boundaries of the firm and spurs firms to buy services crossborder. At the same time, however, the emergence of trade in services creates insecurity among people worldwide who must now face global competition. The efficiencies of net-work counsel liberalization of trade in services, as well as the creation of a robust and widely accessible infrastructure for making and enforcing contracts across borders.

Chapter 2. Western Entrepôt: Silicon Valley

The information technology revolution has not only enabled a global division of labor, it has also spawned entirely new kinds of services, often with global ambitions. Information search services such as Google and Yahoo! and social networking services such as Facebook and MySpace have become popular far outside their home jurisdiction. Such services have often acted with indifference to borders until forced to reckon with them by local authorities. Yahoo! and Google, for example, have run afoul of laws that criminalize speech that is

legal in their home jurisdictions. In this chapter I survey the kinds of legal difficulties that global cyberspace companies are beginning to encounter. To better understand the challenges, the chapter describes three legal conflicts in particular. Yahoo!'s encounter with French laws barring Nazi paraphernalia generated lawsuits on both sides of the Atlantic, with Yahoo!'s lawyer decrying the "French imperialism" of a Parisian court order against Yahoo!'s California-based enterprise. A Brazilian judge reproached Google for evincing a "profound disrespect for national sovereignty" when its Brazilian subsidiary professed an inability to produce information identifying perpetrators of hate speech and other crimes using Google's first social network, Orkut. Both Yahoo! and Google have stumbled in China, where they have been accused of aiding state political repression, most directly in an Alien Torts Statute claim against Yahoo! accusing it of acting as an auxiliary to torture. Faced with compromising its role as a global information provider, Google ultimately retreated from China.

Chapter 3. Eastern Entrepôt: Bangalore

Where China has become the factory to the world, India and other developing countries may become the world's back office. In the span of a decade, Indian companies have integrated themselves into the global supply chain, providing services from accounting to information technology. While electronic networks have been necessary to Trade 2.0, a kind of network as old as human migration has helped power this trade. Diaspora networks that connect Silicon Valley to the Deccan Plateau have reduced information costs across continents, enabling Indian companies to find Western buyers, and Western buyers to find Indian suppliers. Indian outsourcing giants have grown into multibillion-dollar, multinational companies. Indian outsourcing companies now scour the world for talent, establishing or acquiring operations in

Latin America, eastern Europe, China, and even the United States. Developing nations from Africa to Latin America seek to replicate India's success, at times establishing the services counterpart to the export-processing zone popular for manufacturing. But a review of the political and legal issues raised with respect to the outsourcing of radiology from Massachusetts General Hospital to Bangalore shows that these enterprises face important legal challenges.

Chapter 4. Pirates of Cyberspace

Offshore havens now offer not only freedom from taxes or bank regulations but also potentially freedom from law itself. Because of the global reach of the Internet, an entrepreneur can take advantage of the seeming safety of an offshore haven to offer services that might violate local law where the services are consumed. Two cases help make this point plain. In the 1990s, Antigua set out to become the Las Vegas of cyberspace. American entrepreneurs set up companies on that Caribbean island to offer gambling principally to American consumers. When the United States began prosecuting these entrepreneurs, Antigua turned to a perhaps unexpected venue: the World Trade Organization. Antigua charged the United States with violating its free trade commitments by barring online gambling. If Antigua is the Las Vegas of cyberspace, Russia may well be the Wild West. Taking advantage of Russian rules that allow only minimal royalty payments for music, a website called AllofMP3.com permits users worldwide to download entire albums for the price of a single iTune. The United States declared AllofMP3.com "the world's largest server-based pirate website" and even threatened to block Russian entry into the WTO because of it before the site was shut down. Cross-border trade in services also raises special legal problems, including risks to information privacy and the difficulty of enforcing rights abroad.

Chapter 5. Facebookistan

Who rules how Facebook connects more than a billion monthly users, some 80 percent outside the United States? In this chapter I review why countries might want to regulate Facebook and describe how countries have actually sought to do so. National efforts to assert control have been stymied by confusion about who has jurisdiction over Internet enterprises such as Facebook. I conclude that the world of Facebook is currently governed by a complex of nation-states, users, and Facebook's corporate officers.

Chapter 6. Freeing Trade in Cyberspace

In this chapter I return to Antigua's claim against the United States before the WTO. Given the United States' further strengthening of prohibitions against online gambling since the debut of the complaint, is international trade law powerless against barriers to network trade? I suggest that the decision in the case carries the seeds of a net-work revolution, with world trade rules deployed to break down legal barriers to net-work. Indeed, the United States successfully filed its own WTO complaint against China to dismantle some regulatory impediments to the distribution in China of American audiovisual products, including downloads from Apple's iTunes store.

Chapter 7. Handshakes Across the World

The architecture of real-world transactions promotes security, privacy, monitoring, trust, and enforceability between parties, which in turn fosters marketplace contracts with strangers. In order to foster trade in services, governments, corporations, and state and industry associations will need to re-create security and trust in cyberspace. They will need to establish the electronic counterparts to handshakes, ink

signatures, demeanor evidence, word of mouth, and the ready ability to seek legal redress. I argue for a *dematerialized architecture* for cyberspace trade and describe incipient efforts toward that goal.

Chapter 8. Glocalization and Harmonization

Like liquor stores across the county line, computer servers permit individuals to evade local regulations by a simple exercise, here a few keystrokes. The nature of net-work increases the likelihood that a service provider might relocate to take advantage of regulatory environments that it finds favorable. The strategy of legal glocalization requiring a global service to conform to local rules—removes one principal mechanism for regulatory competition by short-circuiting the attempt of a company to choose its governing law simply through its choice of situs. Flags of convenience and the regulatory arbitrage they entail lose force if they are met by states unwilling to cede regulatory authority to foreign jurisdictions. At the same time, international law limits state exercises of extraterritorial jurisdiction. Excessive assertions of local law may unduly Balkanize the Internet; I suggest limits to glocalization to maintain the worldwide nature of the web. Specifically, states should seek to harmonize their rules where possible, maintaining heterogeneous rules only after due consideration.

Chapter 9. Last Stop: Middle Kingdom

The ancient Silk Road helped transmit the culture and technology of China to the world. Today, however, Chinese authorities stand as guardians along the new Silk Road, censoring knowledge flowing within, into, and out of China. History's most efficient platform for information dissemination faces its greatest test at the gates to the Middle Kingdom. In the wrong hands, the Internet can bring the

specter of a pernicious Big Brother closer than ever possible in George Orwell's time. When allied with willing Internet service providers, websites, software providers, and financial intermediaries, a government can gain an omniscience heretofore unknown. Eager to supply the world's most populous Internet market, service providers have bent to official Chinese demands, censoring themselves and even passing along information that uncovers dissenters. In this chapter I consider the challenge of totalitarian states to the global Internet. At a minimum, service providers should seek to "do no evil" if they engage with totalitarian states. I explore what this might mean by contrasting Yahoo!'s and Google's strategies for China, asking whether liberal home states should impose any extraterritorial regulation on their new media services abroad to compel behavior consistent with human rights. I also suggest that liberal governments can seek to use the tools of international trade law to bolster political freedom around the world. Unexpectedly, the General Agreement on Trade in Services might emerge as a human rights document.

This is a book about how law can both foster and regulate trade in services. We must protect local control of global Internet trade without jeopardizing either human rights or the worldwide nature of the web. Globalization with a human face will require us to manage cybertrade to allow us to engage with the world yet at the same time feel that we are not at the world's mercy.