

PANEL III: INTELLECTUAL PROPERTY ISSUES IN E-COMMERCE-- PIRACY IN THE INTERNET AGE

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Hope H. Camp, Jr.

Mr. Camp posed these questions about intellectual property and electronic commerce (e-commerce): Can there be intellectual property protection that is meaningful with respect to e-commerce? Can intellectual property be protected, what is meaningful protection? And, how can intellectual property be protected?

Luis Henrique P. Ventura

I. OVERVIEW OF THE BRAZILIAN SITUATION

The Internet commercially appeared in Brazil in 1995, the same year that the Communications Ministry issued Rule number 004, regulating the use of the public telecommunication infrastructure for the provision and utilization of services connected to the Internet. Rule number 004, defined the 'Internet' as the "generic name for a group of nets, or means of transmission and commutation, rotators, equipment and necessary protocols for communication among computers, as well as the software and data that exists inside those computers." The rule concludes that the Internet is nothing more than an alternate means of communication, such as the telephone or facsimile machine.

The categorization of the Internet as simply an alternative means of communication signifies that the Internet does not require any legal innovations, considering that applicable legislation for other forms of communication already exist, and can be applied to the Internet. Essentially, the argument is that the Internet is solely a new way of accomplishing tasks that are already regulated. For example, to slander someone in a newspaper or on television would be the same as slandering someone on the Internet.

However, Brazilian law clearly does not provide for many of the new situations that the Internet presents. For instance, we can look to the crime of

damage under Brazilian law. According to the Criminal Code, "damage" is the intentional destruction of someone's movable or immovable object(s). The question is whether computer data would be considered an object under the statutory definition of the crime of damage. The broad consensus is that it does not fit a strict reading of the statutory definition of "object."

The most analogous circumstance may be found in the third paragraph of section 155 of the Brazilian Criminal Code (theft), which depicts electric energy or any other energy that has economic value as a movable object. However, computer data is not specifically mentioned. Under Brazilian law, making analogies to the defendants' detriment is not permitted in the criminal field. Thus, as long as the existing law is not amended to reflect the inclusion of computer data under the rubric of "object," damage to someone's computer data will remain an unenforceable crime.

E-commerce is something new for most Brazilians, even unknown to many, and because there have not been any major legal cases related to the use of the Internet there is no Brazilian law regarding e-commerce or the Internet. However, there are two Resolutions that propose to regulate some portions of the Internet (n. 001 and n. 002, passed in 1998), written by the Internet Managerial Committee of Brazil, tied to the Bureau of Computers and Automation of the Science and Technology Ministry. These resolutions deal only with rules for the registration of domain names, delegating the ability to register and supervise the use of domain names to the Research Support Foundation of the State of São Paulo (FAPESP). The resolutions state that registration of domain names that may cause problems for third parties is prohibited, as is the case of names that represent highly visible trademarks, when the domain names are not requested by their respective owner. On the other hand, the resolutions do specify that: "the right to use domain names shall be granted to the first applicant that satisfies, when required, the requirements for the registration of the name." Therefore, it is important for people who want to register a domain name in Brazil to register such names as soon as possible.

Notwithstanding the prohibition of registering names that may cause problems for third parties, there are many cases where FAPESP registers domain names that conflict with trademarks. FAPESP confers registrations automatically, causing damage to the owners of trademarks because the owners become disabled from using the mark on Internet.

II. INTELLECTUAL PROPERTY LAWS IN BRAZIL

In Brazil, intellectual property is ruled by Law number 9.279/96, whose sections 122 and 130 establish: "[t]he distinctive signals visually perceptible, not included in the legal prohibitions are registerable as a trade-mark" and "[t]he owner of the trade-mark is granted the right . . . to take care of its material integrity or reputation," respectively.

These two sections state that a legally registered trademark is legally protected against an unauthorized registry of the trademark name as a domain name. In this case, the owner of the trademark can stop the unauthorized use on the Internet, thereby protecting its integrity or reputation. However, some see a conflict between trademarks and domain names only if the domain name is used to identify the same product identified by the trademark.

For the Law of Industrial Property, the registration of the same or similar trademark is permitted if the products identified by the marks are different. This is what Brazilians call the Principle of the Specialty of the Trademarks. There is no special law regulating this issue, and because there is no doctrinary unanimity, the question of the conflict between trademarks and domain names remains without definition.

Software protection is covered by Law number 9609/98, which establishes that the software protection regime is the same as that established by copyright law for literary works. The protection of rights related to this law is independent from registration. The rights established by this law are guaranteed to a non-resident in Brazil, if his country guarantees the same rights to Brazilians or foreigners residing in Brazil. In addition, its section 12 foresees as a crime the violation of software author's rights.

III. E-COMMERCE PROTECTIONS IN BRAZIL

Currently, there are no enacted laws regarding e-commerce in Brazil, but there are three bills of law proposed in the Brazilian Congress.

The first bill of law (PLS 00022), dealing with documents produced and filed by electronic means, has been in congressional proceedings since 1996. The second bill of law (PL 01483) establishes the electronic invoice and the digital signature on e-commerce transactions and has been in Congressional proceedings since August 12, 1999. The third, and newest, bill of law (1589/99) was proposed to the Brazilian Congress by the Brazilian Bar Association (OAB) from São Paulo, on August 31, 1999. This legislation deals with e-commerce, the legal validity of the electronic document and the digital signature, and generally follows the guidelines established under the United Nations Commission on International Trade Law (UNCITRAL) Model Law for Electronic Commerce.

IV. SUGGESTIONS

Brazil requires a modern law that regulates the many aspects of e-commerce. For example, the law should cover the utilization and authentication of electronic signatures, customs treatment, and clear rules about taxation.

Law 1589/99 intends to attribute to the Judicial Branch the ability to inspect e-commerce activities in Brazil. However, there are many activities in

Brazil that have been inspected and ruled on by national agencies, such as the National Agency of Telecommunication, the National Agency of Petroleum, and the National Agency of the Electric Energy. The creation of a National Agency of Electronic Business might help speed up the development of e-commerce in Brazil.

In the criminal field, there is a tendency only to equate new practices with old crimes. The first thing that must be done is the enactment of serious, strong, and international legislation establishing the international character of crimes that are practiced under electronic means. These laws should mirror the laws for the international traffic of drugs.

V. CONCLUSION

Any legislation established in Brazil must originate from some fundamental principles, including the safety of transactions and the guarantee of privacy. Without these principles there will not be good, valid, and reliable e-commerce in Brazil.

Investment in technology is necessary for the development of e-commerce and telecommunications in Brazil. The government should assume a more pro-active stance in relation to the Internet, such as in providing regulatory parameters, public information, education initiatives, infrastructure, and the prevention of abuse and the misuse of the Internet. However, Brazilians have yet to witness the advent of any informative campaign or conclusive legislation that tackles e-commerce in Brazil. However, there is a growing campaign against software piracy. The government must also understand that it is a mistake to try to solve all the problems related to e-commerce by only thinking locally about this issue. E-commerce is not a local problem—it is a global one.

Robert W. Holleyman

I. THE PROMISE OF E-COMMERCE

The software industry is one of the principal proponents of e-commerce. Software developers and technology companies not only are among the chief architects of e-commerce, they recognize the tremendous potential of offering their own physical and intellectual property based products electronically.

There are tremendous opportunities for all types of products and services to be provided and distributed more quickly, more efficiently, and more cost-effectively worldwide. There are increased opportunities for small and medium sized players in every country to provide their products and services to the international marketplace. Forrester's Research estimates that e-commerce among businesses for all types of goods and services will reach \$109.3 billion in 1999

and \$1.33 trillion worldwide by 2003. According to the research firm International Data Corporation (IDC), the worldwide market for e-commerce in software will reach \$3.5 billion in 1999, growing to \$32.9 billion by 2003, as more businesses and consumers become familiar with shopping on the Internet.

What these numbers make clear is the truly global nature of the software industry. Moreover, the industry's impact on regional economies throughout the world grows each year. In terms of Latin America, this impact has been quantified in an economic report, entitled "Contribution of the Software Industry to the Latin American Economies." The study was conducted by PricewaterhouseCoopers on behalf of the Business Software Association (BSA). It found that the software industry generated \$3.54 billion in sales, more than 137,000 jobs and \$1.24 billion in tax revenues throughout Latin America in 1998. This impact would have been even greater were it not for software piracy.

The piracy rate in Latin America was sixty-two percent in 1998, meaning that over six out of ten software applications installed that year were illegal copies. Decreasing piracy to twenty-five percent in 1998 would have resulted in \$5.32 billion more in sales, over 206,000 more jobs and \$1.86 billion more in tax revenues for Latin America. These statistics illustrate Mr. Holleyman's earlier point that software piracy is a serious threat to the growth of e-commerce and the protection of intellectual property rights.

II. EXTENT AND NATURE OF THE ENFORCEMENT PROBLEM

Unfortunately, businesses and consumers are not the only ones who are adapting to doing business electronically. Pirates have also shown the ability to adjust to developments in the legitimate marketplace and to developments in technology, and have sought ways to use the tools of e-commerce to damage intellectual property owners. For example, an Internet search revealed that over two million web pages are offering, linking to, or otherwise talking about "warez," which is the Internet code word for illegal copies of software. This rough indicator of the problem has increased substantially over the past three years, from 100,000 two years ago, to 900,000 last year, to two million as of this month. Virtually every software product now available on the market can be located on one of these sites.

Although it is virtually impossible to estimate the monetary damage of this activity, another example illustrates that if there were only one thousand pirate sites on the web each year, if approximately one thousand users downloaded software from each site when it appeared, and if each user downloaded approximately \$1,000 worth of software, then that would be \$1 billion annually in stolen software on the Internet.

Internet piracy is not harmless. It threatens all intellectual property based industries and creative individuals and clouds the future of legitimate e-commerce. Internet piracy is criminal activity, sometimes engaged in by

misguided “techies” and students, but increasingly engaged in for substantial profit by professional thieves.

Dial-up bulletin boards presented the first real problem of online piracy. These were individual computers that could be dialed up by modem, where software could be uploaded and downloaded by the users of that bulletin board. This practice continues today on the Internet—pirates advertise their warez with impunity and virtually without cost, on newsgroups, Internet Relay Chat (IRC) channels, and other bulletin-board type areas.

Progress in technology and the development of the World Wide Web has made software piracy much easier. Web download pages make uploading and downloading pirated software merely a matter of clicking on a few buttons. It is also possible to order counterfeit products over the Internet from anywhere in the world. Counterfeit products are even showing up in the otherwise legitimate world of online auction sites.

Hacker sites offer serial numbers, access codes, and software program “patches” that bypass or circumvent encryption or other technical protection measures that the copyright owner may have applied to its products. Using a search engine and the key word “crackz,” the BSA recently found 368,010 web pages that made such “patches” available—many of which are specifically designed to defeat technological protection measures.

Pirates intent on making money off illegal sales of software have also discovered web-based auction sites. These sites have become a favorite way for people to find buyers for anything from antiques to a hot concert ticket. Unfortunately, illegal software has also become a staple of these sites. A BSA member conducted a series of test purchases on popular auction sites in the United States and Europe in 1998 and 1999 and found that sixty percent of the software products purchased were outright counterfeits.

III. STRATEGIES TO COMBAT ILLEGAL E-COMMERCE

There are several practical steps that the industry is taking to combat this new form of electronic piracy. First, the software industry employs several full-time Internet investigators who receive tip-offs of pirate sites and who scan the Internet for pirate activity. If the host site can be found, the BSA sends a takedown notice to the service provider operating the site. This follows the form set out in the U.S. Digital Millennium Copyright Act of 1998 and describes the location of the site, the pirate material or activity, information about the copyright owner, and the BSA’s authority to act on the owner’s behalf. This does not require any detailed analysis by service providers—they can look at the site, see the software being offered, and disable or otherwise take down the site or material.

The BSA has had very good cooperation with service providers who, by and large, want to act responsibly and typically take down an infringing site within twenty-four hours of receiving the BSA notice. Even in Europe, where

there is no uniform law or procedure for such takedowns, the BSA has had a one hundred percent success rate when they have been able to identify the service provider and have sent a takedown notice.

Obviously, given the scale of the problem, it is not yet physically possible to have every site taken down simultaneously. But the BSA has hundreds of sites taken down every month using this practical procedure, which does not require expensive or time consuming court actions or other bureaucratic formalities. The BSA supplements this activity with some very high-visibility legal actions by governments. In a highly publicized case in early 1999, the BSA worked with the Danish police to prosecute a company that had sold \$237 million in counterfeits of BSA member products. The BSA also cooperated with the U.S. Justice Department to obtain the first conviction under the recently strengthened U.S. law imposing criminal liability for persons distributing copyrighted material for free over the Internet. In 1999 alone, the BSA has had forty-six people arrested in Western and Eastern Europe for Internet piracy.

IV. LESSONS LEARNED

There are six principles to help combat pirated software. First, the underlying copyright rules must provide a sufficient legal basis for stopping Internet piracy. For example, it is absolutely necessary that the reproduction right under the copyright law covers temporary as well as permanent reproductions. If it does not, there is no basis for a copyright owner to stop a user from many kinds of illicit online activities, which in many cases involves only temporary copies made in a computer or in a telephone network.

Second, exceptions or liability limitations for service providers need to be very carefully defined. Service providers do not warrant a blanket exception from any copyright liability—this would remove all incentives for responsible activity when they become aware of pirate activity. Thus, carefully defined rules providing limited liability for mere conduit, hosting, caching, and search engine activities are a much better idea.

Third, rapid ratification and implementation of the World Intellectual Property Organization (WIPO) copyright and performances treaties by all countries is critical. The WIPO Treaties implement several important tools to fight Internet piracy. These include clear rights to control the “making available” of copyrighted works on interactive networks such as the Internet and a prohibition on circumvention of technical protection measures. Presently, many countries’ laws do not explicitly provide such tools. These are needed worldwide to ensure that Internet piracy havens do not take hold.

Fourth, developing and implementing technological measures requires broad cooperation among industries. A specific technological protection measure developed without such cooperation may have the unintended effect of disrupting the operation services of a service provider or causing other software to crash.

The industry should be encouraged to work cooperatively to voluntarily develop technologies that are effective in combating piracy while not interfering with other legitimate functions. Service providers should also be free to develop workable standards and practices.

Fifth, practical, non-judicial mechanisms must be found to allow prompt identification of pirate sites. Pirates often use false names and Internet Protocol (IP) addresses, making it very hard both to identify infringers and to establish their physical location. It is sometimes impossible to identify the "host" server where a pirate web page resides. Thus, it is very important that the national registries of domain names keep good records of who the registrants are, and that they make those records available to legitimate inquiries aimed at establishing the identity and location of pirates.

Finally, remedies and penalties must deter Internet piracy. As required by the Trade Related Intellectual Property agreements (TRIPs), remedies and penalties must be sufficient not only to compensate the right holder, but also to deter and prevent piracy. The laws of many countries need to be changed to achieve this result. Similarly, many countries need to re-examine the traditional remedies of damages, which could leave pirates in a better position even after a damages award than they would have been in if they had bought legal copies or engaged in legal activity in the first place. Countries should consider creating a requirement that penalties be imposed based on the retail value of each copy of a work infringed, or a similar form of predetermined or exemplary damages.

V. CONCLUSION

E-commerce promises a new revolution in the development, distribution, and use of products and services protected by intellectual property, while also posing monumental new risks. The WIPO Treaties, strong reproduction and communication rights, technical measures, practical track-down and take-down procedures, and cooperation among intellectual-property owners and technology and service providers can, as the software industry's experience has shown, help make the enforcement of intellectual property rights, and thus the healthy development of e-commerce, a reality.

Alberto Usieto-Blanco

In Argentina, there is a lack of knowledge on the subject of e-commerce, thus deterring its development. Argentine law divides intellectual property into several chapters including: industrial property (Trademarks and Patents), authors' rights, and the right to competition (anti-monopoly). E-commerce touches on all of these areas of law. The Ministry of Finance has assembled a group of experts to study e-commerce. Several situations have influenced the discussion of e-

commerce in Argentina. For example, right now there are no competent authorities in the institute to deal with e-commerce. Hopefully, a new person will be brought in or a new government will be implemented to deal with e-commerce.

Another obstacle is international treaties. Mercosur has a committee setup to deal with intellectual property and has made some agreements about trademarks. However, it is impossible to have a domain name and trademark discussion because there are other conflicts between the member countries that must be discussed first. These issues take priority over an intellectual property discussion and deter the committee from discussing domain names, trademarks, and how they pertain to e-commerce. Right now, Argentina has not been to committee meetings because they are waiting for the results of their elections. By next year Argentina will have elected a president and can get back to the discussions.

Another obstacle is intellectual property training and education. There are no major college degrees in intellectual property, although there are some masters courses on the subjects. Right now, intellectual property courses are optional, not required for graduation. Hopefully, the new staff will be selected based on their academic ability and understanding of e-commerce, so that they can effectively understand and deal with it. Hopefully, they can also create study centers concentrating on this subject to further educate Argentina.

Margaret L. Eriksson & Dr. Omar T. Ojeda

The presentation began with an actual Bolivian case involving intellectual property rights. One million pirated compact discs (CDs) were manufactured in Taiwan for a Chinese businessman. The CDs were shipped to a Paraguay cosmetics company listed as electronic parts with a shipment value of \$35,000. The CDs were shipped using legitimate air bills through several different countries. The CDs were intended to be shipped and sold in Brazil during the Carnival time. The United States notified Bolivian authorities of the pirated CDs two weeks before the shipment was to arrive in Bolivia. The United States wanted the CDs seized before they could reach Brazil. Generally, in order to seize the CDs, both legal and political action must be taken. Political officials usually need to be bribed and pressured by the media in order to take these types of cases.

The prosecutors took the criminal, rather than civil route because it does not require notification before seizure. They were able to seize about 910,000 CDs, meaning that some of the CDs made their way to the market. The CDs had a street value of \$8-10 million, well above the \$35,000 shipping list value. This was the largest seizure ever in Bolivia. The pirates had been using this route for a long time. This case was the first time that the new Law 362 (protection of intellectual property) had been tested and used. The court had no problem in using the law and did not need to be persuaded (bribed) to try to fit the law to

apply to the situation. However, the defendants tried to bribe everyone. They tried to bribe one of the lawyers, the policemen, the prosecutor, and the judge. The defendants were under pressure to get the CDs back to sell during the carnival time, which was almost over.

The goal of this type of case is to punish the culprits and to seize and destroy the pirated materials. While it is relatively easy to seize the materials, generally they are not destroyed until the end of the litigation. It is very important to have mechanisms in place to monitor and stop bribes at all levels. There are limited resources in Bolivia to protect intellectual property rights. Many enforcement agencies have very little knowledge in this area. In order to effectively counteract corruption, the enforcement agencies must be trained in all intellectual property matters. Corruption is a way of life in Bolivia, so it is hard to get people to recognize legitimate intellectual property rights.

Stopping the manufacture and sale of pirated products is huge problem. In Bolivia, almost ninety percent of the software sold is pirated. In 1996, Bolivia was placed on the Intellectual Property Alliance watch list because it had not taken effective measures to protect copyrighted software. As a result, Bolivia has been making changes to try to close the gaps in protection. In 1996, with the help of WIPO, they set up a copyright office to draft regulations.

Maria L. Vazquez

Originally, Argentine intellectual property law did not include software. In order for something to be protected by Argentine law, it must be explicitly stated in the statute. If it is not mentioned, then it is not covered. Because software was not listed in the original statute, it meant that software was not protected and criminals could not be sanctioned for infringements. However, recently Argentina added software to the list of protected articles. This means that criminal sanctions are now available.

Argentina has several regulatory agencies that control intellectual property rights. Sociedad Argentina de Autores y Compositores (SADAIC) acts like the American Society of Composers, Authors, and Publishers (ASCAP) in the United States, however SADAIC has a legally granted monopoly on recording rights. Everything must go through SADAIC, including those who want to use music on their web sites. For example, if an international web site is using Argentine music and is available to Argentine web surfers, then the web site owner must pay SADAIC a licensing fee. SADAIC only applies to music used for publicity.

Other regulatory agencies include la Asociación Argentina de Intérpretes y Cámara Argentina de Productores de Fonogramas y Videogramas y sus Reproducciones (AADI-CAPIF) and the National Fund for the Arts. AADI-CAPIF represents performing artists and record labels and distributes performing rights royalties. The National Fund for the Arts collects royalties for uses of

public domain works. If an Argentine wants to use a work in that is in the public domain, then she must pay a royalty, like a tax, to the National Fund for the Arts.

Oscar M. Becerril

I. CURRENT LAW IN MEXICO WITH RESPECT TO E-COMMERCE

E-commerce in Mexico is only in a very early stage of development. No legislation has been enacted nor do any current laws suggest applicability to e-commerce. In Mexico, all transactions must be properly documented. Those transactions not meeting the documentation standard are considered invalid. This present standard hinders all e-commerce transactions because they do not involve documentation of the transaction. This renders all transactions made in e-commerce absolutely unenforceable.

Mexico is a country in which the legal system is based on written law. Therefore, course of dealing and commercial custom may be considered only as merely persuasive or a secondary source of law. Therefore, a new form of commerce may only be provisionally regulated by a set of existing laws, such as the Code of Commerce and the Law for the Protection of the Consumer. The only existing law that could be applicable to e-commerce is the Law for the Protection of the Consumer. Under this law, any consumer may file a complaint if he feels that he has been deceived by false publicity on the quality of the goods, absence of timely delivery, and the like.

The Mexican Civil Code will not consider an electronic message to constitute a valid document for enforcement purposes. An electronic signature would also be considered invalid for any legal purpose. Under this legal system, electronic messages and signatures could only be authenticated by a Notary Public, which in Mexico is a very serious institution. If a Notary Public gives faith of fact that the message was indeed received and printed in his presence, then the message and signature is considered authenticated.

II. PROPOSED E-COMMERCE LEGISLATION

Currently, the Mexican Association of Industries of Information Technology (AMITI) has presented Mexican legislators a proposed draft for legislating e-commerce on the Internet. The main objective of this draft is to provide clear rules for Mexican Internet shops and consumers to secure an appropriate guarantee of the products purchased and the payments effected. AMITI has a difficult task ahead of it in order to get this legislation enacted because it deals with amendments to several Mexican Codes. AMITI has suggested an alternative to amending several codes by proposing to include the new law as part of the Code of Commerce by creating an additional book called

"About the Electronic Commerce." The new law should be in force sometime during the year 2000.

Among the many other features contained in the proposed draft, it is established that the information contained in a data transmission or message will be given full legal force, validity, and juridical effects. When the law requires evidence that a transaction or message adopt the written form, the requirement would be satisfied if the information or transmission contained in a data message is accessible for further consultation. If the information or data is available, the transaction will enjoy full force and effect for the parties involved. Furthermore, the proposed draft states that when dealing with transactions in which the data message requires an acknowledgment of receipt, the transaction would be effective as of the time of which the message was generated. However, the message will not be considered to have been sent if the respective acknowledgment of receipt has not been received. The draft also includes provisions by which signatures in a contract of data message will be recognized as valid for all legal purposes, provided that certain identification conditions are met.

AMITI is not the only group proposing e-commerce legislation. The Ministry of Commerce and Industrial Promotion and some legislators have presented their own proposals for regulating e-commerce in Mexico. It is interesting to note that all of these drafts are in agreement with each other to a degree of about eight-five to ninety percent. The Model Law suggested by UNCITRAL has guided the configuration of these draft laws on e-commerce.

III. MEXICO'S BARRIERS TO E-COMMERCE

Mexico must get through many existing barriers to ensure the fast and efficient development of e-commerce, including the lack of security generated by the absence of suitable laws or regulations and the economic, technological, cultural, and social issues that constitute obstacles to the development of e-commerce transactions. However, the creation of juridical rules to guarantee the electronic transactions should be a key factor for the development of this new way of doing business.

Another barrier to the development of e-commerce is the vast amount of poverty-stricken areas in Mexico. The large number of poor Mexicans leads to a low purchasing power on the part of the entire population. In fact, most of the Mexican population does not have credit cards, which is the major form of payment used in e-commerce transactions. The lack of vision by businessmen for adjusting their offers to the needs and possibilities of the market is another barrier to the development of e-commerce. Most Mexican companies have not yet developed the technical infrastructure to allow conversion from a physical market into an Internet market. Furthermore, the middle class generally prefers to go shopping in real shops, rather than sitting in front of a computer to purchase items using e-commerce. More importantly, the unfortunate situation of high

delinquency in connection with the falsification of credit cards, signatures, mail theft, and other similar crimes requires immediate attention in order to eliminate these very strong obstacles to e-commerce.

IV. PROTECTION OF CREATIVE WORKS IN MEXICO

Once a new work leaves the hands of the creator and enters the digital world of the Internet, Mexico has no ability to ensure that the originator of the work will be able to control its reproduction and dissemination and receive payment due for uses. Although the new Copyright Law and the Industrial Property Law contain provisions to enable the creators to protect and enforce their rights, there are no practical means, either technological or mechanical, to effectively secure works against pirates. There is no way for the law to control "cracking" and other means used by pirates who might infringe works by placing illegal copies on the Internet. Stopping violations in these types of cases is extremely difficult, even when markings are included to inform the users that the information is properly protected under Mexican intellectual property laws.

In Mexico, there is no differentiation between creative works such as software, and other works that are protected under Mexican intellectual property law—such as business slogans, essays, and poetry. Patent law may protect software, as in the United States, if it is presented in a way that includes an "industrial application." Copyright law may also protect software such as computer programs and databases. Databases are protected through the compilation provision of the copyright law.

V. FORMS OF RELIEF

Although Mexico does not have true injunctive relief as it is understood under the laws of the United States and other first world countries, the industrial property laws contain a set of provisions that permit the Mexican Industrial Property Institute (IMPI) to carry out seizures of infringing goods, machinery, publicity materials, instruments, instruction manuals, and other items. IMPI is also authorized to either temporarily or permanently close the establishments involved in the infringement. These measures, however, can only be executed through an administrative complaint filed before IMPI that requests an inspection. At the time of the inspection, IMPI may carry out all the above described precautionary measures, which, in combination, may be regarded as the equivalent of injunctive relief.

Mexico has been changing its laws covering intellectual property since 1991. The current laws are reasonably effective in enforcing the rights of creators. However, when dealing with e-commerce, the application of the injunctive relief-like measures becomes extremely difficult. The new Copyright

Law already contains some provisions that expressly refer to the electronic transmission of works. Article 111 states that programs made electronically containing visual, audible, three dimensional, or animated elements are protected in connection with their new format. Article 113 establishes that all works, interpretations, and executions transmitted electronically through the electromagnetic spectrum and through telecommunications networks, as well as the result obtained by the transmission, are protected. Lastly, Article 114 indicates that the transmission of works protected by the law by means of cable, radio electrical waves, satellite, or other similar means, must be adapted to the Mexican Copyright Law.

In conclusion, in view of the Copyright Law provisions, the creators of original works may have confidence that their rights are protected in Mexico.

VI. CONCLUSION

The impact of e-commerce in the areas of copyright, patent, and related intellectual property laws has been very small. This is due, in part, to the fact that Mexican intellectual property laws already contain suitable provisions to protect and enforce creator's rights in a reasonably effective manner. E-commerce has had the most impact in the consideration of a special new law to protect information online. The purposes of the new law are to render electronic signatures, messages, and data valid under the Mexican Codes (Civil and Commerce); to effectively enable the practical application of the existing copyright and industrial property laws to control the misappropriation, dissemination, and infringement of rights; and to enhance statutory damages for punishing web site operators who illegally distribute pirated material.

Fernando Becerril

E-commerce is defined by the UNCITRAL as "transactions in international trade, carried out by means of electronic data interchange and other means of communication, which involve the use of alternatives to paper-based methods of communication and storage of information." The amazing development of telecommunication devices and computers has allowed peoples' products and services to be available to a very large percentage of people around the world. In highly developed countries, the use of computers has been highly promoted, and it is normal to find people who are familiar with computers and related technologies like the Internet.

In order to realize the impact that e-commerce may have on our markets, we should look at each one of the 147 million Internet users (in 1999) as a potential customer. Thus, it is of great importance to develop adequate worldwide legislation. This type of legislation must be adopted worldwide because of the

ease with which the systems such as the Internet allow companies to trade products and services with anyone in the world. Worldwide trade obliges each country to do such transactions in accordance with the trade laws of each one of the countries involved.

In a typical electronic transaction, several intellectual property rights may be affected. First, to login to an information network, people use several programs and devices to retrieve information, such as computers, modems, switchboards, communication devices, routers, hubs, and other devices. Each of these products may be the subject of a patent or copyright. Whenever there is an intellectual property right involved there is the possibility of an infringement. As these infringements may be regarded as "typical," they should be treated in accordance with the national laws of the countries involved.

Second, there is a lot of information published on the Internet, all of which is exposed to potential misuse. Frequently, Internet users take the pieces of web pages that they like, copy, and use them on their own web sites. A user can download the piece to his computer and can use, reproduce, and modify the downloaded information to the extent he wishes. This constitutes infringement of several intellectual property rights including trademarks, trade names, slogans, and copyrights. The technology is not completely ready to provide a web page owner with any secure means to keep safe all the information contained in the web site or web page. Since there are no technological or mechanical means to prevent the reproduction of a creator's works, the creators should very clearly indicate ownership of such rights on their web pages.

All human creations are well protected within the present intellectual property systems worldwide. However, e-commerce does not necessarily fit in under these forms of protection; instead, it is more like a business strategy. Therefore, e-commerce legislation modifications should be focused on trade laws and international trade laws.

Since 1989, the Network Information Center (NIC-Mexico) has been the institution that regulates the registration of domain names in Mexico. Mexico has recently modified the domain name registration policies, which took effect September 1, 1999. The registration procedure involves filling out a questionnaire, which can be done on the NIC-Mexico web page <<http://www.nic.mx>>. NIC-Mexico specifically states that the registration of a domain name in Mexico does not suppose a trademark registration, and that it is the applicant's responsibility to verify that he is not violating anyone's intellectual property rights.

In the event that a domain name does infringe on an intellectual property right, NIC-Mexico defines a complaint procedure. The owner of the intellectual property right should notify the domain name holder that said name infringes the owner's rights. If the domain name holder refuses to cease use or ignores the notification, the owner should notify NIC-Mexico. Once NIC-Mexico has received the notification, the owner must follow a series of steps to prove that he is the owner of the exact name that the domain name holder is using. If the

domain name holder or the owner starts an administrative or judicial procedure before the NIC-Mexico proceeding is completed, then NIC-Mexico will let the matter be decided through the administrative or judicial procedure.

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