

Intellectual Property Rights Legislation and Computer Software Piracy in Jordan

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Abstract: This paper presents a serious worldwide problem, namely, computer software piracy and its impact on global economy, in general, and Jordanian economy, in particular. The paper also presents a detailed analysis of the Jordanian IPR legislation and Jordan's commitment to international and bilateral agreements with regards to this issue. Finally, the research proposes a number of recommendations on how Jordan can combat this problem and improves the enforcement of IPR legislations in the country.

Key words: Intellectual property rights, piracy, copyright

INTRODUCTION

The protection of intellectual property rights and software piracy has always been a major concern of software developers and programmers worldwide. According to the Business Software Alliance and IDC piracy study on global trends in software piracy, it was estimated that as much as 36% of all software in the world is counterfeit, which means that for every two dollars' worth of software purchased legitimately, one dollar's worth was obtained illegally. In 2003 the world spent more than \$50 billion (US dollars) for commercial packaged software that runs on personal computers (PC) which means that there is about \$30 billion loss to software producers in one year.

Many computer users have found themselves caught in the piracy trap, unaware they were doing anything illegal. It is worth explaining here the ten basic ways one can intentionally or unintentionally pirate software:

Soft lifting: Soft lifting occurs when a person purchases a single licensed copy of a software program and loads it on several machines, in violation of the terms of the license agreement.

Unrestricted client access: Unrestricted client access piracy occurs when a copy of a software program is copied onto an organization's servers and the organization's network "clients" are allowed to freely access the software in violation of the terms of the license agreement. This is a violation when the organization has a "single instance" license that permits installation of the software onto a single computer, rather than a client-server license that allows concurrent server-based network access to the software. A violation also occurs when the organization has a client-server license; the organization is not enforcing user restrictions outlined in the license.

Hard-disk loading: Hard-disk loading occurs when an individual or company sells computers preloaded with illegal copies of software. Often this is done by the vendor as an incentive to buy certain hardware.

OEM piracy/unbundling: Some software, known as OEM (original equipment manufacturer) software, is only legally sold with specified hardware. When these programs are copied and sold separately from the hardware, this is a violation of the distribution contract between the vendor and the software publisher. Similarly, the term "unbundling" refers to the act of selling software separately that is legally sold only when bundled with another package.

Software programs that are marked "not for resale" are often bundled applications.

Commercial use of noncommercial software: Using educational or other commercial-use-restricted software in violation of the software license is a form of software piracy. Software companies often market special non-commercial software aimed at a particular customer.

Counterfeiting: Counterfeiting is the duplication and sale of unauthorized copies of software in such a manner as to try to pass off the illegal copy as if it were a legitimate copy produced or authorized by the legal publisher.

CD-R piracy: CD-R piracy is the illegal copying of software using CD-R recording technology. This form of piracy occurs when a person obtains a copy of a software program and makes a copy or copies and re-distributes them to friends or for re-sale.

Internet piracy: Internet piracy is the uploading of commercial software (i.e., software that is not freeware or public domain) on to the Internet for anyone to copy or copying commercial software from any of these services. Internet piracy also includes making available or offering for sale pirated software over the Internet.

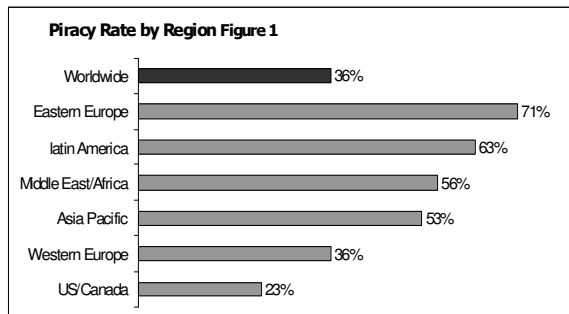
Manufacturing plant sale of overruns and 'scraps':

Software publishers routinely authorize CD manufacturing plants to produce copies of their software onto CD-ROM so that they can distribute these CD-ROMs to their authorized vendors for resale to the public. Plant piracy occurs when the plant produces more copies of the software than it was authorized to make, and then resells these unauthorized overruns. Piracy also occurs when the plant is ordered by the publisher to destroy any CDs not distributed to its vendors, but the plant, in violation of these orders, resells those CDs that were intended to be scrapped.

Renting: Renting software for temporary use, like you would a movie, was made illegal in a number of countries including the United States by the Software Rental Amendments Act of 1990 and in Canada by a 1993 amendment to the Copyright Act.

It is worth noting that the ten types of piracy identified above are not mutually exclusive. There is often overlap between one type of piracy and another.

Computer piracy has many negative economic consequences, other than the loss in revenue from direct sale. Local software industries are threatened and crippled by competition with high quality pirated software from abroad, which impedes the IT sector growth which results in loss of tax revenues and jobs mainly from the lack of a legitimate market and costs of ineffectual enforcement. In the past few years, Jordan, has suffered from brain drain to the Gulf Region, specifically in the IT sector due to the low wages in the country in comparison with the Gulf countries. Figure 1 illustrates the relative ranking by piracy rate of six global regions which consist of 86 countries and six sub-regions as categorized by the IDC. Table 1 shows the highest and the lowest 20 countries in terms of piracy rates.



Source: First annual BSA and IDC Global Software Piracy Study, July 2004

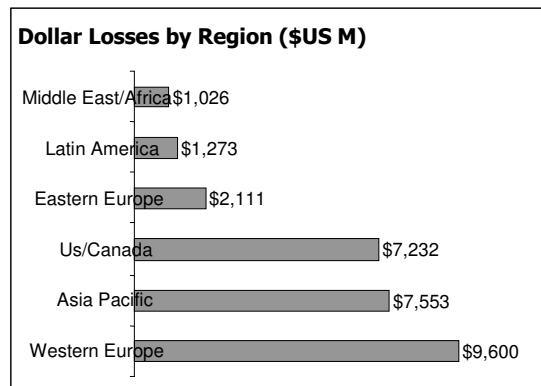
Fig. 1: The relative ranking by piracy rate of six global regions

It is worth noting that no country is immune from the impact of software piracy. Figure 2 shows the value (\$US losses) of pirated software by region 2003. [\$US losses is calculated using the known size of the

Table 1: Software piracy rankings

Top 20 Pirating Countries	Bottom 20 Pirating Countries
China 92%	United States 22%
Vietnam 92%	New Zealand 23%
Ukraine 91%	Denmark 26%
Indonesia 88%	Austria 27%
Russia 87%	Sweden 27%
Zimbabwe 87%	Belgium 29%
Algeria 84%	Japan 29%
Nigeria 84%	United Kingdom 29%
Pakistan 83%	Germany 30%
Paraguay 83%	Australia 31%
Tunisia 82%	Finland 31%
Kenya 80%	Switzerland 31%
Thailand 80%	Norway 32%
El Salvador 79%	Netherlands 33%
Nicaragua 79%	UAE 34%
Bolivia 78%	Canada 35%
Guatemala 77%	Israel 35%
Dominican Republic 76%	South Africa 36%
Lebanon 74%	Reunion 39%
India 73%	Czech Republic 40%

Source: First annual BSA and IDC Global Software Piracy Study, July 2004



Source: First annual BSA and IDC Global Software Piracy Study, July 2004

Fig. 2: The value (\$US losses) of pirated software by region 2003

legitimate software market in a region and using the piracy rate to derive the retail value of the software that was not paid for. Free software and some open source software were not considered pirated.]

Unfortunately, there are a number of forces acting to increase piracy around the globe. The unauthorized distribution of pirated software over the internet, and peer to peer networks present a new and much more complicated threat to software producers. Online piracy is facilitated by continuous increases in transmission speeds, since faster connections enable users to send and download larger files more quickly, along with the absence of strong online copyright laws and enforcement of laws. In addition, the economic slowdown in some regions, the increase in the number of new users, mostly consumers and small businesses, in emerging markets has contributed to increase piracy.

It is worth mentioning here that world shares a common desire and commitment to build a people-centered, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life. In order to translate these commitments into actions, it requires countries to take affirmative actions to bridge the digital divide by developing and supporting initiatives that increases internet access, PC ownership and usage, and lower access costs. This in turn will increase the influx of new users, and thus leading to higher piracy rate.

By the end of 2003, there were 700 million internet users and the number is expected to be more than one billion in 2007, many of the new users will come from emerging markets. Today there are 70 million broadband households, and by the end of 2007, there will be an additional 100 million.

Jordan statistics: The Government of Jordan, under the leadership of HM. King Abdullah II, and in partnership with the private sector and civil societies continues to take substantive actions to improve the connectivity of Jordanians, and transforming Jordan into a knowledge-based economy by implementing e-initiatives countrywide, including remote and underprivileged communities. These initiatives include the Jordan Education Initiative, which is recognized on international level, E-Government initiative and the National Broad Band Network that will connect about 3000 schools, 8 public universities, and the 100 Knowledge Stations (Access points) spread throughout the kingdom.

This will provide over 1.5 million students and citizens with direct internet access by 2008.

Yet, Jordan has still a lot to do in this area. By the end of September 2005, Jordan has achieved 30% and 10.4% PC and internet penetration respectively. These percentages are considered relatively low in comparison with the developed countries, and some Gulf countries. Table 2 shows the internet usage statistics- The Big Picture. Table 3 shows the Middle East internet usage statistics

Computer software piracy in Jordan: Despite the fact that the Government of Jordan has adopted and enacted stronger intellectual property rights protection law since 1992 when a new generation of policymakers came into power and began luring foreign investors, Jordan's piracy rate was, by then, considerably high compared to the worldwide average. Jordan's rate was estimated by the IDC to be about 65% compared to 36%, the global average in 2003. This resulted in piracy losses for Jordan of about \$US15 million for the same year, according to the IDC.

The government is highly committed to fight computer software piracy and has initiated and supported a number of national programs to educate and raise the awareness of the business community and Jordanian citizens about IPR and the importance of the protection of IPR.

Furthermore, the government has taken substantive actions to alleviate software piracy by addressing the problem directly through the National Library, which is entrusted by law with responsibility of IPR in the country, to combat piracy whether it is a movie, music, literature, CD-R recording or computer software. The National Library frequently conducts raids on computer show vendors and takes legal actions against violators. A number of legal cases were filed in the Jordanian courts and software retailers were fined. Yet there is still room for improvement which requires stronger enforcement of IPR legislation in the country.

Jordanian intellectual property rights legislation:

The international copyright laws, including Jordanian legislation provide copyright holders with a great deal of protection, but unfortunately these laws alone cannot protect intellectual property rights in goods once they have been exported to other markets. A significant body of domestic and international law as well as an active group of Jordanian non-governmental organizations and governmental agencies has been set in place to help protect the intellectual property rights in the country. It is essential for software developers to become familiar with these laws and organizations.

Intellectual property rights piracy effectively destroys the creative initiative of Jordanian inventors and scientists. It also hurts the bilateral relations with many countries, especially the United States. Therefore, and since the early 1970s, the government of Jordan has gradually made progress in IPR protection. In Jordan, computer software is protected by the Copyright Law No (22) of 1992, which has been amended several times over the past decade to ensure that Jordan will comply with international requirements and meet national needs. The law was recently amended and published as the Copyright Law No (9) of 2005.

What can be protected?: The current Copyright Law No (22) of 1992 as revised in the Copyright Law No (9) of 2005 has software provisions. Under article 3 B.8, all forms of computer software are protected by copyright. Even an object code, which can only be ready by a machine, is protected. However, copyright protection can only begin when there is a physical expression of the work.

Forms of protection: The copyright law provides the Author with the following forms of protection: Pursuant to article 45, the law protects the Author's copyright, even if the computer software wasn't registered at the Jordan National Library. Pursuant to article 8 the author has the only right to:

Table 2: The world internet usage and population statistics - The Big Picture

World Regions	Population (2005 Est.)	Population % of World	Internet Usage, Latest Data	Usage Growth 2000-2005	% Population World (Penetration)	Users %
Africa	896,721,874	14.0 %	23,867,500	428.7 %	2.7 %	2.5 %
Asia	3,622,994,130	56.4 %	327,066,713	186.1 %	9.0 %	34.2 %
Europe	731,018,523	11.4 %	273,262,955	165.1 %	37.4 %	28.5 %
Middle East	260,814,179	4.1 %	21,422,500	305.4 %	8.2 %	2.2 %
North America	328,387,059	5.1 %	223,779,183	107.0 %	68.1 %	23.4 %
Latin America/Caribbean	546,723,509	8.5 %	70,699,084	291.31 %	12.9 %	7.4 %
Oceania / Australia	33,443,448	0.5 %	17,655,737	131.7 %	52.8 %	1.8 %
WORLD TOTAL	6,420,102,722	100.0 %	957,753,672	165.3 %	14.9 %	100.0 %

Notes: (1) Internet Usage and World Population Statistics were updated on September 30, 2005. (2) For regional information, click on each world region. (3) Demographic (Population) numbers are based on data contained in the world-gazetteer website. (4) Internet usage information comes from data published by Nielsen//NetRatings, by the International Telecommunications Union, by local NICs, and by other reliable sources. (5) For definitions, disclaimer, and navigation help, see the Site Surfing Guide. (6) Information from this site may be cited, giving due credit and establishing an active link back to www.internetworldstats.com. ©Copyright 2005, Miniwatts International, LLC. All rights reserved.

Table 3: The Middle East internet usage and population statistics

Middle East	Population (2005 Est.)	Usage, in Dec/2000	Internet Usage Latest Data	Use Growth (2000-2005)	% Population (Penetration)	(%) of M.E.
Bahrain	707,357	40,000	152,700	281.8 %	21.6 %	0.7 %
Iran	68,458,680	250,000	550,000	120.0 %	0.8 %	2.6 %
Iraq	26,095,283	12,500	25,000	100.0 %	0.1 %	0.1 %
Israel	6,986,639	1,270,000	3,200,000	152.0 %	45.8 %	14.9 %
Jordan	5,788,340	127,300	600,000	371.3 %	10.4 %	2.8 %
Kuwait	2,530,012	150,000	600,000	300.0 %	23.7 %	2.8 %
Lebanon	4,461,995	300,000	600,000	100.0 %	13.4 %	2.8 %
Oman	2,396,545	90,000	245,000	172.2 %	10.2 %	1.1 %
Palestine(West Bk.)	3,997,861	35,000	160,000	357.1 %	4.0 %	0.7 %
Qatar	768,464	30,000	165,000	450.0 %	21.5 %	0.8 %
Saudi Arabia	23,130,024	200,000	2,540,000	1,170.0 %	11.0 %	11.0 %
Syria	18,586,743	30,000	800,000	2,566.7 %	4.3 %	3.7 %
Turkey	73,556,173	2,000,000	10,220,000	411.0 %	13.9 %	47.7 %
United Arab Emirates	3,750,054	735,000	1,384,800	88.4 %	36.9 %	6.5 %
Yemen	19,600,009	15,000	180,000	1,100.0 %	0.9 %	0.8 %
TOTAL Middle East	260,814,179	5,284,800	21,422,500	305.4 %	8.2 %	100.0 %

Notes: (1) The Middle East Statistics were updated on September 30, 2005. (2) Detailed data for individual countries and regions may be found by clicking on each country name. (3) The demographic (population) numbers are based on data contained in world-gazetteer.com. (4) The usage numbers come from various sources and are consolidated here, see the site surfing guide. (5) The most recent usage information comes mainly from the data published by Nielsen//NetRatings, ITU, and other reliable sources. (6) For growth comparison purposes, the usage data published by ITU for the year 2.000 is furnished. (7) Data may be cited, giving due credit and establishing an active link back to InternetWorld Stats. ©Copyright 2005, Miniwatts International, Ltd. All rights reserved.

- * Put his/her name on all copies of the product that are distributed to the public,
- * Release his/her product to the public and determine the time and means of distribution,
- * Make changes to the product,
- * Defend the product against any attack that might jeopardize the reputation of the Author, and
- * Withdraw the product from the market if good reasons require that. The Author must compensate financially any person who purchased the right of his/her product exploitation.

Pursuant to article 9, the author has the only right to financial benefit and exploitation of his/her product by any means he/she desires, unless he authorized or sold the rights to somebody else. This authorization must be documented in writing this includes the rights to. Thus the author has the full rights to make copies in any form he/she desires, and authorize persons to rent or distribute his/her product to the public

Under this law, the copyrights are exclusive to the author in the exception of fair use such as the use of the

product for purposes such as criticism, comment, news reporting, teaching, scholarship, or research. The aforementioned uses are not infringement of copyright.

Pursuant to article 30 of this law, exclusivity duration is up to fifty years after the death of the author. First year starts as of January of the year of death. This is in line with international conventions such as Bern Convention.

Pursuant to article 56, Jordanian and non-Jordanians authors are equal under this law. In addition, the Jordan abides by international conventions provisions to which Jordan is a contracting party.

Penalties: The copyright law contains several provisions that define punishment for IPR violation. Violators are subject to be sentenced for not less than three months and/or not more than three years or are fined not less than JD1000 and not more than JD6000. In case a second violation occurs, the organization is subject to closure for not more than one year or duration to be decided by the court; or annulment of its

business operational license for a period to be defined by the court.

The law provides the author with the right to file a complaint against infringement of his/her copyright. The court will issue an order to immediately stop the violation, confiscate and destroy all copies and confiscate of all financial returns made from the violation (selling of the copyrighted item). The court may require the violator to financially compensate the author. Upon the request of the author, the court will announce the punishment against the violators in the daily newspapers.

Current international copyright protection: In order to protect the interests of Jordanian producers, the government has entered into a number of international agreements guaranteeing the mutual protection of intellectual property rights. The most significant international agreement concerning copyrights currently in effect is the Berne International Union for the Protection of Literary and Artistic Works ("the Berne Convention"). Under the convention a copyright holder in one country is protected against copyright infringement in all other signatory countries (in 1998 there were nearly 100 signatories to the Berne Convention). As a result of the convention, there is no need to register for a copyright in any other signatory country once the owner has registered in his/her home country.

The Berne Convention has also been adopted by the members (including Jordan) of the World Trade Organization (WTO) in the Uruguay Round agreement on Trade Related Intellectual Property Rights (the "TRIPs Agreement"). TRIPs is very significant to software exporters because the Agreement explicitly adds computer software to the scope of the Berne Convention and thus obligates WTO members to protect computer programs as copyrighted literary works.

The Universal Copyright Convention (UCC) adopted by the members including Jordan in 1952 and revised in Paris on 24 July 1971, mandates that each contracting state undertake to provide for the adequate and effective protection of the rights of authors and other copyright proprietors in literary, scientific and artistic works, including writings, musical, dramatic and cinematographic works, and paintings, engravings and sculpture. Published works of the nations of any of the contracting states and works first published in that state shall enjoy in each other contracting state the same protection as that other state accords to works of its nationals first published in its own territory, as well as the protection specially granted by this convention. It is worth noting that computer software is not mentioned literally, but fall under scientific work.

In addition, Jordan has signed bilateral agreements which protect copyrighted works:

- * Rome Convention 1961

- * Madrid Agreement 1989
- * Paris Convention entered onto force in 1972
- * Cooperation agreement under the WTO with Yemen, 2003
- * Cooperation agreement under the WTO with Lebanon, 2003
- * The Euro-Mediterranean Association Agreement with Jordan was signed on November 24, 1997. It entered onto force on May 1, 2002.
- * The EU-Jordan Association Agreement was signed in 2001 and entered onto force on May 20, 2002.
- * United States –Jordan Free Trade Agreement 2001.

Finally, Jordan joined a growing number of countries and signed the World Intellectual Property Organization Copyright Treaty (WCT). It entered onto force on April 27, 2004. The World Intellectual Property Organization (WIPO) is an international body under the United Nations responsible for promoting the protection of intellectual property. The creation of the WCT represents a major advancement for WIPO and has the potential to greatly benefit software producers because it addresses several issues specific to digital technology.

The treaty mentions two subject matters to be protected by copyright, (i) computer programs, whatever maybe of the mode or form of their expression, and (ii) compilations of data or other material (databases), in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations. A database that does not constitute such a creation is outside the scope of this treaty.

As the rights of authors, the treaty deals with three: (i) the right of distribution, the right of rental, and (iii) the right of communication to the public. Each of them is an exclusive right, subject to certain limitations or exceptions.

The treaty obliges each contracting party to adopt, in accordance to the legal system, the measures to ensure the adequate application of the treaty, and the availability of enforcement procedures under its law so as to permit effective action against any act of infringement of rights covered by the treaty. Such action must include prompt remedies to prevent infringement and remedies which constitute a deterrent to further infringements. The treaty also requires each contracting party to abide with the substantive provisions of 1971 (Paris) Act of the Berne Convention for the Protection of Literary and Artistic Works (1886).

The full text is available at: <http://www.wipo.int/treaties>

Non-governmental organizations for the protection of IPR: In the past few years, Jordanians have recognized the importance of the intellectual property right and the need to protect it. The country has witnessed increasing interest and commitment towards IPR related issues, and specifically in the computer

software area. National non-governmental organizations and private sector firms have been formed to educate the business community and individuals about IPR to help protect intellectual property rights in and outside Jordan. The following are examples of two very active institutions that are playing a major role in promoting IPR and copyrights in the country:

The Jordan intellectual property association (JIPA): JIPA is a not-for-profit voluntary membership association that aims to contribute to positive economic growth in Jordan through increased levels of IP awareness in the Jordanian business community, enhanced infrastructure for intellectual property rights (IPR) protection, and an internationally recognized IP industry in Jordan. In addition, it promotes direct and indirect investments in Jordan by monitoring compliance with international agreement and participating in improving business practices. JIPA as an IP business association has an affiliation with:

- * Jordanian business associations
- * Jordanian National Library
- * Jordanian Industrial Property Department/Ministry of Industry & Trade
- * Customs Department
- * Judges
- * The business community
- * The public
- * International entities
- * World Intellectual Property Organization (WIPO)
- * International Intellectual Property Institute (IIPI)
- * Business Software Alliance (BSA)
- * The Pharmaceutical Research and Manufacturers of America (PhRMA)
- * US Patent & Trademark Office (USPTO)
- * Brand Protection Group (BPG)

Abu-Ghazaleh intellectual property (AGIP): AGIP was established in 1972 in Kuwait, and then expanded its business into Jordan. Currently, its main offices are in Jordan. Intellectual property protection in the region was still in its infancy. However, since then AGIP has devoted its efforts to promoting the importance of IP protection throughout the Arab countries.

It has encouraged the introduction of IP laws and an efficient IP system that has introduced two significant changes to the region. Firstly, with the new legislation, major multinational corporations have been given the confidence to expand to the region because they are now assured of protection for their products. Secondly, the creative individuals of the Arab world such as Arab architects, artists, designers, computer scientists, musicians and writers, have now the protection for their products that ensures their hard work is properly rewarded.

Research methodology: Basic research technique was used. Intensive literature review was conducted where national legislation, international agreements and conventions, and many studies related to the subject matter were reviewed. This was followed by detailed analysis of the material.

CONCLUSION AND RECOMMENDATIONS

The threat of software piracy remains large, particularly for those software producers who export their programs. However, combating this threat requires combined efforts of policy-makers, software developers and publishers, businesses, journalists, domestic and international bodies, an active group of non-governmental organizations as well as and concerned individuals. As long as software piracy exists, there will be fewer jobs, less research and development and increased costs in the IT sector.

The following suggestions are recommended:

- * Review and amend existing IPR related legislation to ensure better enforcement in the country.
- * Provide Jordan's National Library with adequate financial and technical resources to ensure improved law enforcement.
- * Provide adequate human resources, specialized in IPR and copyright It related issues, such as e – security to ensure adequate enforcement.
- * Encourage universities and research centers to conduct research on computer software piracy in Jordan to identify appropriate preventative actions and remedies.
- * Continue and enhance the support to the awareness campaigns about IPR and copyright conducted by JIPA and other organizations. Specific awareness seminars must target Software developers, and mainly exporters to educate them about these laws and resources and how to utilize them to protect their intellectual property interests domestically and abroad.
- * Build the capacity of Jordanian judges to become capable of handling computer software piracy cases.
- * Coordinate with international organizations to learn from developing countries' experiences in combating computer software piracy.

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