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14. December 2007

Online at <http://mpra.ub.uni-muenchen.de/8253/>
MPRA Paper No. 8253, posted 14. April 2008 / 03:22

Copyright Protection In The Digital Era: A Malaysian Perspective

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Abstract

This paper seeks to explore the significance of copyright protection in Malaysia's business environment of the digital era. Copyright law is increasingly being challenged with the intensification of internet use now. Issues of piracy and infringement of rights raise concerns surrounding the enforcement of legal measures for protection of copyrights. Hence the paper aim to understand the role and function of copyright in the digital era, and assessing the Malaysian society's awareness of cyberspace copyright protection. This is an interpretive research carried out by conducting interviews, on 3 different groups of respondents, which are the dot.com companies, the IP professionals and government officials. The findings indicate there is a difference amongst the three groups in the understanding and awareness of Intellectual Property Rights and copyright protection; and that Malaysian government is not actively and effectively promoting awareness of the copyright issues to the public. Also it is imperative for Malaysian authorities to enhance protection of copyright in cyberspace.

Keywords

Copyright issues, intellectual property rights, internet, Malaysia.

Introduction

The new millennium brings a more widespread and intensified Digital Age with wider internet use. Nikolai Kondratiev (a soviet economist) hypothesized *that industrial countries of the world have experienced successive waves of growth and decline since the beginning of the industrial revolutions* (Stutz & Warf, 2005:178). Subsequent scholars have argued that currently we are living in an information technology wave (known as Kondratiev's 5th Wave) since 1980s. Hence the digital age significantly influenced the business world today, leading to e-commerce and e-business activities.

Communications technology and computer technology converged and led to a 'new technoeconomic paradigm', which is characterised by low costs of storing, processing and

communicating information (Stutz & Warf, 2005). Consequently arises the need for a more comprehensive and enforced digital copyright protection that protects expression of ideas and stimulates authors' creativity.

In Malaysia, Multimedia Super Corridor (MSC - Malaysia's equivalent to Silicon Valley) was set up in 1995. Since then Malaysia has *overhauled its copyright law to provide a legal landscape that would support the growth of the informational and communication industry* (Ida Madieha, 2004: 2). The main concern is technology protections measure that was incorporated protections in early 1997. Despite such protections in Malaysia, privacy has been increasingly a serious criminal offence.

Therefore an increasing need arises to explore the significance of copyright protection in Malaysia. As such this paper aims to; a) understand the role and function of copyright in the digital era; and b) gauge the awareness of the Malaysian society in respect of copyright protection with regards to cyberspace in Malaysia.

Literature Review

Overview of Intellectual Property Rights (IPR)

In recent years, Intellectual Property (IP) protection has gained much prominence globally and has attracted interests from the policymaker, analyst and investors. Bowyer (1996) notes that main purpose is to preserve the motivation needed for people to undertake the development of new and useful things that could benefit society and to enforce concepts of fairness in business dealing. Hence, strong IP protection develops a nation by enhancing the condition for investment, encouraging development in the local industry and enabling more investment that generates economic growth (WIPO, 2007). Further, a study discloses that 86% to 100% of investor country believes that the strength of IPR in a country influences the investment decision, since investors need a protected digital business environment if it is to be profitable to them (Davies & Withers, 2009). Moreover digitization of information and growth of research networking has accelerated this trend and raised additional issues for science and technology communities in IP protection (Chareonwongsak, 2002)

Intellectual Property Rights Defined

IP is associated with intangible property rights that need to be reduced to tangible form before it can qualify for IP protection. In Malaysia, IP law is governed by common law (unwritten law, which is derived from case law or 'judge-made' laws) and statutes (an Act of Parliament). The major forms of IPR for e-commerce can be divided into 4 namely, Patents, Trade Secret, Copyright and Trademarks (Bowyer, 1996).

Patent is a contract between inventors and society, which is a form of protection usually granted for new product and processes in the field of technology and scientific inventions or innovations (Bowyer, 1996). Meanwhile Trade Secrets are referred to the 'know how' of a business which grants owner a competitive advantage over others. It need not be registered and protected contractually. As for copyright, it forms a major IP issue in Cyberspace whereby it protects an expression of ideas, and the product of human creativity. Its protection

lasts for a specific period of time and is effective immediately upon the work being created. And finally trademark is a word, symbol, or a graphical sign used by businesses to identify their goods or services in the course of trade, for examples domain names of websites. It has to be registered in the country to afford statutory protection and does not have a life span unlike the former three.

IPR needs to be registered individually in every country as it is subject to a country's legal considerations. Nonetheless, Malaysia is a signatory to the Paris Convention which covers industrial property, the Berne Convention (1990) for the protection of literary and artistic works and is a member of the Trade- Related Aspects of IPR (TRIPs) agreement which aims to harmonise the standards and principle of IP protection and its enforcement.

Copyright in the Digital Age

Copyright is a branch of many forms of IPR that is increasingly important in the internet era. Peterson (in Longdin, 2005) asserted that the development of copyright is based on the principle that *what is worth protecting is prima facie worth protecting*. Copyright originates from England during the 16th century in the printing industry and in its modern form was developed from the Berne Convention. Today, the Digital Millennium Copyright Act 1998 governs the U.S. Copyright legislation and the Copyright Act 1987 and the Copyright (Amendment) Act 1997 governs Malaysia Copyright protection.

Copyright and the Internet

The internet started in U.S some 30 years ago, in the government defense department as a transfer information tool during wartime. Initially (1950-1975), it was operating at a snail's pace (Jones in Kwan & Lai, 2003) and later in 1983 internet came into existence and replaced the above, subsequently spreading across the globe (Hunt. 1992). Now, it is a worldwide network of computers that share a common communication protocol (Johnson in Lei & Holsapple, 2005), hence independent of geographic location (Peter & Carlos, 1997) and integrating the world global community (Negroponte, 1996).

Internet users grew from 13 billion in 1994 to over 300 million in 2000 (Cerf, 2000), thus making it more attractive for commercial entities to participate, as well as becoming a new social space (Foster in Martin, 2004). Energy, Communications and Multimedia Ministry of Malaysia indicate that internet users are increasing yearly and as of 2005, computer ownership is 30 people per 100 population (Paynter & Lim, 2001).

Despite its wide spread growth and use, a greatest challenge emerges in curbing copyright infringement, thus necessitating an increased and enforced copyright protection in cyberspace.

Copyright infringement on the internet

Since, the internet deals with the transmission of text, images, photos and sounds, the application & implication of Copyright are apparent (Kreiss in Netanel, 1996; Gibson & Ward 1998; Zekos, 2002). The general notion of many is that, anything found on the Internet is

public domain and can be taken without consent from the author/owner, thus resulting in lost of multi billion dollars in revenue. In essence, the Internet has enabled a global piracy industry (Friedman, 1997). Malaysian is not an exception being in the priority watch list for Business Software Alliance (BSA). Millions of people can simultaneously read any digital document and they can also steal it (Negroponte, 1995). Hence, the situation seems to point towards the inadequacy of the existing legislation worldwide.

The U.S Copyright Law

The U.S. Copyright law is governed by the Digital Millennium Copyright Act (DMCA) 1998, which is legislation in response to massive pressure by pressure groups and lobbyists. Notably, the U.S. Copyright law addresses issues of the Internet better than most countries. Among the major issues covered are; a) fair use of exemption for non-profit purposes; and b) limiting the liability of ISP (Section 107 of the 1976 Copyright). It tried to house many opinions and criticism generated surrounding copyright issues, yet the success of it remains to be seen.

The European Union (EU) Copyright Law

EU directive for IP law was made under the internal market provisions of the Treaty of Rome (2004). It requires all Member States to apply effective, dissuasive and proportionate remedies and penalties against those engaged in counterfeiting and piracy [Article 3(1)]. There seems to be extra measure on enforcement of digital copyright. Prior to this, EU Copyright Directive was implemented in 2002, emphasizing on *information society* rather than the *information economy* hence insinuating that economic concerns must only be the consideration in government action designed to promote the development of such a society (www.fipr.org). The directive also encourages “high-technology” research in the area of security within the EU, while maintaining the importance of creativity and vibrant cultural sphere.

Malaysian Copyright Law

The Copyright Act 1987 and the Copyright (Amendment Act 1997) governs Copyright Law in Malaysia (Anderson, 1997). There is not much case law on Copyright and the Internet in Malaysia due to its infancy (Munir, 1997). Hence, other common law jurisdiction like the U.K. and U.S are normally referred. However unlike the U.S Act, Malaysia (Section 25 of the Copyright Act 1987) provides a comprehensive set of moral rights of attribution and integrity for all kinds of works as required by the Berne Convention (Article 6). Nevertheless, criminal penalty is rarely imposed in Malaysia for copyright infringement. It will change in future due to current government’s initiatives to educate the public on Copyright infringement.

Research Methodology

This study takes an interpretivist research paradigm due to the limited literature available. Hence, qualitative research method is employed via interviews, highlighting multiple perceptions and differing experience of individuals. An interview gives both the interviewer and interviewee a more thorough understanding of topic under discussion and investigation. In addition, face-to-face interviews enables instant clarification any misunderstanding or

misinterpretation. Also, the flexibility to reword or reorder the questions can be done in the event of some unforeseen circumstances.

Interviews

The interview style ranges from a highly structured predesigned list of question to a free ranging conversation. A total number of 40 structured and unstructured interviews were carried out on 3 different groups of respondents, which are the dot.com companies (1st category), the IP professionals (2nd category) and government officials and/or IP academicians (3rd category).

It is imperative to obtain the expert opinions and feedbacks from these 3 different groupings as their insights into their environment and the experience is invaluable. As Saunders *et al* (2003) stated, talking (interviews) to experts in their subject area is one of the principle ways of conducting exploratory research. Moreover this method provides means to fill in the gaps in the literature as well as the practices and perception of Copyright matters.

The total number of interviews was expected to be 50, but only 40 interviews were successfully concluded. Prior to the interview, the interviewees were briefed on the format of the interview. Relevant information pertaining to the objective of the study and/or interview, and their role in the study were highlighted. A copy of the interview questions were forwarded to the intended interviewee before the interview takes place, as essentially this adds to the credibility of the study and allows participants to consider the information requested beforehand (Saunders *et al*, 2003). Effectively, the email exchange between the researcher and respondent before the interviews helps to limit ambiguity and prior to each interview, notes and questions are reviewed for a better direction during the interviews.

The interview questions or ideas are derived from the literature and are mainly exploratory in nature. There are 10 questions for 2nd and 3rd category and 11 questions for 1st category. The questions asked evolved around the issue of awareness and perception of Copyright and the impact of Copyright law in the Malaysian context. Semi-structured interview questions were not initially developed but are spontaneous to the participants' feedbacks.

Table 1 below provides an overview of the 40 interviewees participating in this study.

Categories	Background of Interviewees.
1 st Category (dot.com companies)	5 Chief Executive Officers, 5 senior managers, 2 consultants, 3 senior executives, and 5 IT engineers. They are from an IT company, either locally based or foreign subsidiaries.

<p>2nd Category (IP professionals)</p>	<p>1 partner of a legal firm specialising in IP law, 1 lawyer practising in the area of Copyright law, 7 lawyers specialising in areas of IP laws, 4 lawyers with some knowledge on IP laws, and 2 partners of legal firms with some knowledge of IP law.</p>
<p>3rd Category (government officials and/or academicians) IP</p>	<p>3 consultants attached to government affiliated agencies in IT and IP, 1 lawyer for a quasi-government body with immense knowledge in IP, and 1 academician from an education institution in Kuala Lumpur, who is knowledgeable in IP and used to practice it.</p>

Table 1: A brief summary of interviewees’ background.

Once the interviews were concluded, data of each category are studied and analyzed. Firstly the notes transcribed are reviewed. Then, common categories are gathered by grouping them together to observe a comparison and in-depth analysis. Next, the entire data set was reviewed, and finally the responses were compared and contrasted while narrowing down the topics.

Research Findings and Discussion

The findings are divided into 6 categories, i.e. awareness on copyright, perception of copyright protection, barriers on the adoption of intellectual property, significance of IPR and copyright, the legal framework and its practices, and the future of copyright in the digital environment. All these categories relate to the objectives of this research.

Awareness on IPR and Copyright protection

All respondents showed a general understanding of IPR and Copyright protection. Lawyers being professionals in these areas, seems to have a higher level of awareness than the dot.com companies, while the government official and academicians have the highest level of awareness due to them being the specialist. The general awareness on IPR is relatively high in all 3 categories. Table 2 below illustrates the awareness created by the three different groups. The level of awareness is determined based on their responses from the interviews derived from their degree of knowledge on the matters queried. The percentage of awareness is calculated based on the number of responses that asserts awareness by demonstrating some knowledge on the matters queried over the total number of respondents available in the same category.

Types of Awareness	Dot.coms	Lawyers	Government Officials/IP Academicians
General Awareness on IPR	75%	100%	100%
Awareness on Copyright Issues	40%	40%	100%
Aware that IP protection help generate benefits to companies	80%	100%	100%
Aware of what constitute infringement	60%	87%	100%

Table 2: Level of awareness on Copyright by the 3 groups of respondents

Narrowing it down to Copyright, the awareness demonstrated by the 1st and 2nd category of respondents is low. Some respondents declared that they only know “roughly”, “in simplistic manner”, or “find it hard to describe” on what Copyright covers, what it offers or an idea of Copyright protection. This indicates a lack of in-depth knowledge and low level of awareness. Some recognize the fact that they would leave the nitty gritty of the law to people who has more expertise in these areas, namely the IP lawyers or their in-house legal department or consultant outsourced.

Lawyers who specialize in Copyright have full knowledge and awareness in all aspects, but those who specialize in other forms of IPR are not very aware of Copyright matters. Therefore, it generates a low level of awareness. Nevertheless, the understanding of IPR protection amongst big corporation and large MNC are greater than the smaller SMIs (Small Medium Industry). In addition, most of the respondents are confused between Copyright, Patent and Trademark protection. Indeed, Trademark and Patents are more popular than Copyright in the digital environment.

On a question of whether companies are aware that IP protection would help generate benefits to the company, 80 % of the total respondents answer positively whether by means of some royalty fees or licensing. However, they observed that the real challenge is monitoring it. 50% of the respondents do not think the benefit is monetary but for business integrity. They believed IP protection motivates R & D and bring in investments, and is a part of risk management that would provide companies an edge over others.

When asked whether they are aware what actions and omission constitute infringement and its application thereof, 40% of the respondent asserts negatively. Some responded with “not

exactly”, “not in detail”, “not sure”, “not familiar” and “roughly”. Instead, they blame this lack of awareness on the government’s drive to create awareness targeted at corporations and not individuals.

Therefore it is not a surprise that many respondents do not have a deep understanding of Copyright matters despite their seniority in the management level and their expertise in the area concerned. Many claimed to know what IPR and Copyright constitutes, yet cannot produce satisfactory evidence of this knowledge. This is obvious when they contradict themselves while answering questions that are in duplication or reworded for accuracy and understanding. Lawyers who practiced IPR matters have some knowledge on Copyright issues but not thorough. This inefficiency is crippled by their specialization in a particular area of the law. Hence, it can be concluded that it is the refined level of IPR and Copyright protection that are unknown.

Nevertheless, it can be observed that more and more companies, lawyers and government officials are increasingly aware of IPR and Copyright, a positive trend that is greatly solicited. This positive trend is attributed to the dedication of the government and international organization in promoting the awareness and protection of IPR and Copyright.

Perception of copyright protection

On the perception of Copyright protection in Malaysia, the views offered by the respondents are manifold. Most of the respondents from the 2nd and 3rd categories viewed that Malaysia being a signatory to the Berne Convention and the existing Malaysian Copyright law is in line with International standards. They viewed that the government has created sufficient amount of awareness among the people especially coupled with the wave of development of the MSC. Yet, the lawyers opined that the Government could do more to educate the public on the perception of Copyright matters in Malaysia.

On the contrary, the 1st category of respondents believed that Copyright protection was not looked into seriously which is obvious from the counterfeits and piracy mushrooming everywhere and at almost every product. Furthermore they viewed that there is no proper education and lack of sufficient awareness on Copyright protection. Many perceive that Copyright law is only applicable to CDs, VCDs and software piracy, while some perceive that the enforcement unit has yet to reach some level of maturity. Hence, they describe Copyright protection and commercialization is still at its infancy stage.

Some believe that Copyright protection is optional and will only be purchased if there is a direct threat. Nevertheless, most respondents still consider Copyright protection for new and innovative products. However, they have commented on the need to improve and strengthen the enforcement system and legal framework that will add value to Copyright protection.

Another respondent perceives Copyright protection in Malaysia is seldom thought to be applicable in the business environment. It is only perceived as something we have to adhere to and not to be infringed. On a more positive note, some 40% of the respondents viewed that

Copyright protection is not to be ignored as it offers protection, thus essential to business strategies and business models.

Indeed recently, the Government of Malaysia is determined and has taken serious efforts to enforce the rights of the Copyright owners by greatly exposing it to the public. In fact, the resources and enforcement unit and the law too were entwined to reflect an effective management of Copyright matters. In that regard, the Government has enacted the Optical Discs Act 2000 in (Malaysia Investment Statement, 2005) an effort to provide a framework for manufacturing Copyrighted work and to combat piracy activities.

Recently, the Government has jointly cooperated with the BSA to conduct more raids and enforcement. The Prime Minister and his cabinet have publicly addressed the need to improve IPR protection and have articulated its determination to curb these infringing activities. A special task force was jointly held between the Ministry of Domestic Trade and Consumer Affairs and BSA to launch “Crackdown 2000” targeted at corporate use of unlicensed software. Also in April 2000, amendments are made to the Copyright Act to provide a more comprehensive legislation to address more issues concerning the digital environment. This is mainly due to Malaysia’s commitment to the WTO (Lallana, 2004).

IPR and Copyright principles need to be education as it is a good business strategy that cannot be neglected. In fact, it helps businesses to mitigate risk and is a crucial initial step that must be undertaken by companies. Indeed, the IPR and Copyright portfolio must be viewed as key assets to a company in order to create value.

Barriers on the adoption of intellectual property

Pertaining to the barriers on the adoption of IP, only 25% of respondent affirmed that they lack in-depth knowledge and exposure on Copyright protection, hence are unable to fully address the issues on barriers. While some respondents viewed the main barrier their lack of knowledge on how to resolve Copyright, some raised the issue of anonymity which hinders checks. Legal awareness is another aspect due to most staff being technically but not legally trained.

Barriers	Percentage
Lack in-depth knowledge on IP	25 %
Financial Constraint	50 %
No Barrier	10 %

Unknown what it takes to resolve to Copyright	10 %
Limited Remedies and Lengthy Procedures	5 %

Table 3: Barriers on the adoption of IP for Dot.Coms

Table 3 shows that 50 % of respondent quoted financial flexibility as the main barrier towards active participation, whether in respect to obtaining legal advice, legal action, education or time rendered. Only 10 % of the respondents do not see any barrier at all. Perhaps the real barrier is the process of monitoring it and proving that such process will generate good revenue. Hence, most dot.com's found themselves being stuck in the middle because they do not perceive any real benefit or immediate benefit of IPR or Copyright.

Some companies ignore adopting Copyright protections because the remedies seen as limited, lengthy legal procedures and the cost involved, thus an evaluation between costs and benefits. Nevertheless, most respondents do consider the cost factor as something that cannot be avoided. It has become "something which must be adopted" in order to safeguard their future interest in the event of any likely infringement. Only a handful of the respondents felt that cost is not the main determining issue, but viewed it as part of an asset to the company. What contemplated them is the extent to which they seek copyright protection.

Both the 2nd and 3rd categories of respondents viewed cost should not be the determining factor for the adoption of Copyright protection, because its advantages far outweigh its disadvantages. Moreover, it is not expensive to seek Copyright protection given that Copyright need not be registered in Malaysia.

Although adopting IPR and Copyright protection does not help to generate an immediate return compared to selling a product, it does help to curb potential or further losses if not adopted. Thus it can be concluded that the idea of awareness is there, but the society does not see the importance of IPR and hence does not practice it.

On the issue of costs being one of the barriers, it is opined that the approximation of costs should be viewed on a case-to-case basis depending on what is sought to be protected and the extent to which it intends to cover. Copyright does not require registration, thus can be said to be economical. Also, it is effective the moment you post it on the Internet, therefore automatically protecting works. Even though it is advisable to file an affidavit, get it notarized and stamped, yet it is not a requirement but only a question of proof.

Nevertheless cost will be incurred when one intends to press an action on Copyright infringement that can be both civil and criminal. The cost of a criminal action is lower compared to a civil action (Munir, 1997). For a criminal action, once a complaint is made enforcement officials will take the necessary steps. The steps will vary according to the nature of the case. Therefore there is a choice of rights and a balance must be struck.

Significance of IPR and Copyright

Most respondents commonly understand that IPR offers protection to new discoveries, innovation and expression of ideas. All categories reaffirm that IPR and Copyright ensures protection of unauthorised use of works. They agree that Copyright protection prevents undue accreditations to the author of the work, hence a violation thereof, will constitute infringement and they can seek legal redress.

20% of the respondents viewed Copyright protection is significant for website design and creation, images, content, business plan and strategy, flow chart and financial solutions, solution architecture, blue print, source code, etc. Another 40% viewed that everything posted on the Internet are inter related and can be protected under Copyright. Such protection is further significant for the authors of original works. In return it boosts research and development investment that generates profits and inflow of investment.

Some MNCs have a department of their own to ensure proper and effective IPR and Copyright management. 30% of the respondents point out that the significance of IPR and Copy right should be enhanced with adequate technology protection such as encryption and watermarking. For example, 5 of the respondents from the 1st category quoted their encounters with regard to a Copyright infringement. Another company had registered a website using the same company name with an almost identical web appearance and expression of idea. This was purely direct Copyright infringement and action was taken and successful. However this infringement was only noticed by chance when one of the staff was surfing on the Internet. Hence, it is difficult to monitor the whole process.

The second category of respondents viewed that they must continually educate themselves with the business and legal environment and the society, as well as being aware of the recent news and development. Such education is necessary in order to develop a comprehensive set of knowledge and understanding that provides better, more reliable and credible advice.

On a question of whether companies often forget about the function and protection of IPR and Copyright, a majority opined that a distinction must be drawn as to whether companies see it as a matter of following the wave or they really know what it can do for them. Circumstances where companies are aware of the rights, they normally do not forget the significance of IPR and Copyright. On the other hand, if they are not aware, then the tendency to forget the importance of IPR and Copyright is higher. Hence, they would not know what is copyrightable and naturally will forget it.

The third category of respondents shared similar views with the second category and concluded that IPR and Copyright protection is crucial to ensure success in the companies and the industry. Moreover it is fundamental towards creating a successful platform for foreign investments, which increases competitiveness and importance for companies.

There is lack of awareness in the distinction between Patents and Copyright. Protection on new discoveries and inventions is afforded to patents and not copyright. Whereas, Copyright

covers protection on the expression of ideas. Also there appears a blurred vision as to what can and cannot be protected under Copyright.

In the strictest way, the legal framework is not the sole solution to stop Copyright infringement. Technological assistance such as encryption and watermarking could also do the same task. But it is difficult to monitor and easily abused unless people assist to provide information. Moreover, the process of Copyright detection is very time consuming, lengthy and not cost effective. Most of the respondents do not think this method of investigating on the occurrences of duplication or Copyright infringement as justified. Moreover, when companies do get to know of such infringement, they would weigh the necessity of taking any action. Normally when an infringement is found, a warning letter is issued to stop these actions. But sometimes, they would not proceed with any legal action if they do not foresee that the infringing company can remedy then financially.

The legal framework and its practices

All participants were asked whether they would regard the current legal framework and practices of Copyright as sufficient. Many replied negatively, with 80% collectively viewed that the government is not addressing the issue and promoting awareness of IPR and Copyright and insisted that there is more room for improvement.

However 50% of the respondents asserted that the Malaysian Copyright Protection should be sufficient and comprehensive. Nevertheless, they refuse to comment in detail due to lack of knowledge on how to evaluate or determine it is sufficient and comprehensive. It is further noted that sufficiency is not the main issue but a question of effective enforcement. Also, due to differences in laws in different countries; different understanding, application and practices will apply. Certainly, more harmonisation should be done to reduce this gap.

On the practices, many felt that it is crucial for the Government to boost their enforcement unit. It is suggested by few respondents government should also consider reducing the cost of software as this will also reduce people's tendency to infringe Copyright.

Nevertheless, the 2nd and 3rd category of respondent viewed that the government and enforcement units are doing their job. More raids are done and more initiatives are being conducted to raise the awareness of the society as a whole, on Copyright matters and its infringement thereof. They felt that there are progresses in the regulatory framework compared to a few years back. Yet, they do believe more can be done to improve the current rampancy of Copyright infringement especially with regard to the software industry.

The government has managed its role in promoting awareness on IPR and Copyright matters. It is progressing slowly but surely by giving many seminars and workshop on IPR. It is the duty of the society to be aware of IPR and Copyright per se. Awareness among the society will only be created and increased if initiatives are taken to do so. If the society is not cooperating in this, then it is not fair to lay the blame solely on the government. It is as a 'joint venture' between the government and the society to make it a success.

The future of copyright in the digital environment

All three categories of respondents shared the same opinion for the abovementioned. Four of them asserted that it is imperative to safeguard the interest of the authors' works as well the shareholders interest. Another respondent thought the greatest challenge is to fight piracy. The piracy rate in Malaysia has gone beyond control and it is so rampant that these pirates have a physical store to market these products. Thus enforcement is imperative and the government should be proactive and not reactive. However, due to the nature of internet, the difficulty in its enforcement is not denied.

One respondent realizes that the new global economy and also Malaysia has begun to understand that information is power and content is king. This has inevitably increased the need to look into Copyrights to protect their works. In line with the development of Internet, this scenario may become more crucial and complex due to the borderless nature of the internet and the limitation on the jurisdictional boundaries. Downloading softwares, movies, music for free has become more convenient and accessible, hence the need for Copyright protection has become more essential than ever.

50% of the respondents viewed that priority should be placed in educating the public and their role as a citizen in order to solve the problem at its root. People need to truly understand the impact of Copyright infringement and the damage it causes to the economy. Public apathy on the infringement of copyright law need to be removed, otherwise it is unlikely that Malaysia's perception on Copyright will change much over the next few years.

The lawyers collectively opined that the amendments made on the Copyright (Amendment) Act 1997, will extend to include digital copies of texts in electronic or transient forms. It is probable that the legislature is leaving the interpretation to the judiciary, thus it would be interesting to wait and see for more judicial decisions in this area. Another factor is that laws typically lag behind changes in technology, and it is thus crucial that we are abreast with changes to ensure that laws are current and up-to-date.

The 3rd category respondents agree with most of the issues raised such as jurisdictional problem and the problem posed by the Internet. However, they do not see the urgency of 'upgrading' the current legislation, instead, need to strengthen the enforcement.

To sum up the research findings, it is agreed that the main solutions lies with educating the public on the awareness of Copyright protection and the damage caused by piracy to reflect its cause and implication. However, the larger debate is the extent to which the doctrine of Copyright can be stretched to accommodate new technological development. Notwithstanding the legal framework that is necessary to protect maximum information, there is an equal need to maintain a free flow of information. Differences in the law and its rigidity create ambiguity, which understandably will continue to provide more legal challenges in the near future. In fact, mobility is going to be the next wave on the Internet world. How this is going to affect IPR and Copyright, is still at its infancy in Malaysia.

Conclusion

The characteristic of the Internet has out-performed the law, thus the question arises whether Copyright is shaken by the advancement of technology and that it is significant in the digital era. Undoubtedly, the current Copyright laws do provide protection to Copyright owners but it has some drawbacks. Some doubts have been raised on the effectiveness of Copyright protection being enforced onto people. The borderless nature of Internet, calls for a more encouraging relationship in other jurisdiction and close cooperation with the international organizations. The society must be educated on the necessity of Copyright protection to prevent any unauthorized use.

Legislation can provide a basis for Copyright owners to seek redress or pursue an action in the event of an infringement or breach. This is due to the Law having a symbolic power which codifies values in society, which if ignored, becomes a breach. When society no longer respect IP protection as a unique reasoning of creating expression, then the moral infrastructure previously legislated becomes unregulated.

Some respondents may view that copying software, downloading data and copying music from the internet without authorization is acceptable and is an understandable culture. Nevertheless, they are aware that it is a violation of Copyright. This indicates a lack of ethics and a serious attitude problem being implanted. Although some have sought the protection of technological means to safeguard their Copyright, it is argued that technology is not the ultimate solution.

To this end, Copyright owners will survive the Internet, but in future a balance need to be achieved between allowing a reasonable amount of freedom to users, and maintaining the reproduction right of Copyright owners. If this is achieved, Copyright has served its purpose.

Limitation

The study is conducted based on understanding derived from the literature available. However there is a lack of empirical evidence in this area of research. Therefore it is affected by few limitations.

Firstly only a limited number of interviews can be conducted within the limited time available. There were difficulties faced in getting interviews and obtaining meaningful information and clarity during the interviews.

Secondly, the population sample is not representative of the views of all dot.coms, IP professionals and government authority and IP academicians. The sample population was taken from respondents in the Klang Valley (the 'intelligent' area of Malaysia). However, it could be seen as representative as a large concentration of Malaysia's internet users are from this area (Multimedia Malaysia Internet Case Study, 2002).

Future Research

The study done by BSA is only concentrating on the piracy rate of the business software application. It does not consider other means such as operating systems, games, multimedia and educational software and the source of the illegal software. Further study to determine all types of software and means for protection would be fruitful.

There are also many loop holes and many aspect of Copyright law which cannot be explored in detail. Different legislation and the ambiguity of interpretation of the law also hampered the in-depth analysis of Copyright protection in the context of Internet. Further study on the liability and the interpretation of Copyright law would reflect a better understanding.

Furthermore, it would be interesting to gather the perception of the users' point of view on the degree of awareness and/or the public's perception of IPR and Copyright knowledge. Evaluation of the means to provide a more accurate and effective of promoting Copyright protection should be further analyzed. Consistent to this, future surveys should include more participants from various places and various groups of companies and/or bodies.

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