

Intellectual Property in the Digital Economy

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The World Wide Web

- A mechanism, or system, for linking together millions of electronic documents, or web pages, each of which can be accessed through a unique, yet changeable, Universal Resource Locator (URL).
- A website = a collection of web pages

Origins of the Internet

- 1969
- Experimental project of the Advanced Research Project Agency (ARPA) and was called ARPANET.
- This network linked computers and computer networks owned by the military, defense contractors, and university laboratories conducting defense-related research.

Origins of the Internet

- ARPANET evolved beyond its research origins in the US to universities, companies and most individuals in the world.

ARPANET → DARPA → Internet

Copyright related issues

The Problem

- Digital technology, in particular the Internet, has revolutionized the way authors', composers' and artists' works are reproduced, accessed, communicated and distributed.
- New technologies have enabled and encouraged more works to be reconstituted as digital products and distributed through a virtual communications network on the Internet -- a far cry from the early days whereby Internet technology was used merely to process goods or services delivered through conventional means.

The Problem

- Computer technologies that have been making waves in the digital world include the MP3, peer-to-peer (“P2P”) file sharing software like Grokster, Kazaa, and eDonkey, blogging, podcasting and streaming – new ways of distributing content to listeners and viewers via the Internet.
- These technologies have dramatically altered the structure and economics of the business models under which copyrighted works are published and distributed to the public.

The Problem

- A virtual market-place for music and entertainment products now exists notionally in cyberspace.
- Its existence is not contained by national boundaries or borders and it challenges traditional legal protection norms such as national copyright laws that are typically territorial in nature.

The Problem

- Possibly, the most difficult task for legislators and the courts to date has been the regulation of the use or abuse of copyrighted digital products accessed through the Internet.
- For copyright owners, the ability to exclude others from unauthorised access to their digitally constituted works on the Internet is crucial to the commercial profitability or viability of their business enterprises.

The Problem

- In order to take legal action for copyright infringement on the Internet, copyright owners must address three fundamental issues: (1) who is liable for the infringement; (2) which jurisdiction does he take his action in and which national law is applicable in his case; and (3) what acts of infringement have been committed under the applicable law.
- In light of the strong territorial premise of copyright laws, the localization of an act of copyright infringement within a particular jurisdiction for the unauthorized transmission of online copyrighted materials in a spatial dimension like cyberspace is a complex and problematic exercise.

Subsistence of copyright in materials on the Internet

- Meaning of literary work and compilation
- In cyberspace, works of intellectual and creative efforts may come as one of the stipulated categories of work such as literary, dramatic, musical or artistic, or they may be presented as a combination of the various categories of work.
- For instance a Web site may consist of original literary and artistic works as well as sound recordings and films.
- The subsistence of copyright in these multimedia works is called to question before amendments to the law.

Subsistence of copyright in materials on the Internet

- In Singapore, as in elsewhere, this ambiguity in the law has now been removed by the amendments to the law.
- Returning to our earlier example of a Web site consisting of several categories of copyrightable works, copyright will subsist in the Web site as a compilation within the meaning of the Singapore Copyright Act provided that the selection or arrangement of its contents constitutes an intellectual creation.
- The requirement that the compilation must constitute an intellectual creation appears to imply that there must be some degree of originality and creativity present. Thus, it may be doubtful that a mere "cut and paste" job will suffice as a compilation of an intellectual creation.

Subsistence of copyright in materials on the Internet

- The fact that the Web site as a whole enjoys copyright does not negate the subsistence of copyrights in the individual works constituting the compilation.
- The significance of this is that if anyone attempts to copy any part of the compilation and not the compilation as a whole he will still infringe the author's copyright in that work concerned.

Subsistence of copyright in materials on the Internet

- Meaning of fixation and the medium for storage
- To further remove any other doubts as to the subsistence of copyright in works of intellectual and creative efforts in cyberspace, the law makes specific reference to the storage of the work in a computer or on any medium by electronic means as instances of reduction of the work to a material form.

Infringement of copyright in cyberspace

- Meaning of "reproduction"
- Reproduction in relation to any work, or subject matter other than a work, includes the making of a copy which is transient or is incidental to some other use of the work or subject matter other than a work.

Infringement of copyright in cyberspace

- The exception of user caching
- The law expressly provides that copyright in any material is not infringed by the making of a transient or incidental electronic copy of the material from an electronic copy of the material made available on a network, if the making of the first-mentioned copy is required for the viewing, listening or utilisation of the material by a user of this or another network.
- An "electronic copy" in relation to any material has been defined to mean a copy of the material in an electronic form, and includes the original version of the material in that form.

The position of browsing, framing and linking web pages

- **Browsing**
- As a result of the amendments and the provision for the exception of user caching, browsing does not infringe the copyright in the materials made available in an electronic form on the Internet.

The position of browsing, framing and linking web pages

- **Framing**
- Framing or content windows refers to the technology which allows a Web site owner to enable users to view all or part of third parties' Web sites while remaining at the first Web site.
- The third parties' Web sites are usually "framed" or surrounded with the advertisements of the first Web site and the advertisements of the third parties' Web sites are omitted.

The position of browsing, framing and linking web pages

- In the United States, a law suit was filed on 20 February 1997 by a number of newspapers and periodicals in the Southern District Court of New York against TotalNews, Inc. alleging that TotalNews had designed "a parasite Web that republishes the news and editorial content of others' Web sites in order to attract both advertisers and users."
- This would have been an excellent opportunity for the courts in the United States to deliberate on this on framing but the case was settled.
- The parties agreed that TotalNews could continue to link to the newspapers' sites but the linking was restricted to text links only, no logos were allowed and framing must ceased.
- See *The Washington Post Co., et al. v TotalNews Inc., et al.*, 97 Civ 1190 (filed February 20, 1997).

The position of browsing, framing and linking web pages

- **Linking**
- Linking refers to the creation of “hypertext links” –links to hypertext somewhere else on the Web, which is constructed in a computer language called hypertext markup language, or HTML.
- The ability to create these links is one of the main advantages of the Internet and is essential to its operation.

Cases in the United Kingdom and the United States of America on linking

- ***The Shetland News Case (Shetland Times Ltd v Wills, Scot SessCas, 10/24/96)***
- The owners of Shetland Times, a newspaper in the United Kingdom, took legal action against a second newspaper, the Shetland News alleging copyright infringement when Shetland News created hyperlinks to some of Shetland Times' stories. The defendants Shetland News argued in court that the hyperlinks could not constitute copyright infringement, as free access to information was the fundamental principle of the Internet.

The Shetland News Case Cont.

- The Scotland Court of Sessions disagreed and issued an “interim edict” (similar to an interlocutory or preliminary injunction), prohibiting the defendants from making such links. The defendants appealed against the interim ruling but the case was ultimately settled between the parties. The parties agreed that Shetland News could continue to hyperlink to the Shetland Times but on the condition that each link had to feature a logo and an attribution (“A Shetland Times story”) and these were to be hyperlinked to the Shetland Times list of headlines.
- See Duncan Campbell, Computing and the Net: Shetland showdown, The Guardian (London), Thursday, November 13, 1997.

***Ticketmaster Corp., et al. v Tickets.Com, Inc.
(U.S. District Court, Central District of
California, March 27, 2000)***

- The web site of Ticketmaster Corp (“Ticketmaster”) operates to allow users to purchase tickets to various events like concerts, ball games, and so. Tickets.Com (“Tickets”) also operates a web site offering a slightly different ticketing service.
- Although Tickets sells tickets to some of the events, for those events that Tickets does not offer ticket sales service it provides information as to where and how tickets may be purchased.

Ticketmaster Corp., et al. v Tickets.Com, Inc. Cont.

- Tickets had created links to the web pages of Ticketmaster for those events in which Ticketmaster is the exclusive ticket broker. By clicking on the hyperlink, the user is transferred to the interior web page of Ticketmaster (bypassing the home page) for the particular event in question and the user may buy the ticket from Ticketmaster on-line.
- It is significant that an explanation is generally given by Tickets, which says: "These tickets are sold by another ticketing company. Although we can't sell them to you, the link above will take you directly to the other company's website where you can purchase them." The interior web page contains the logo of Ticketmaster.

Ticketmaster Corp., et al. v Tickets.Com, Inc. Cont.

- Ticketmaster filed a complaint against Tickets alleging many wrongdoings one of which is copyright infringement.
- On this ground, the U.S. District Court dismissed Ticketmaster's claim. The court is of the view that hyperlinking does not itself involve a violation of the Copyright Act because no copying is involved.
- The customer is transferred to a particular genuine page of the original author.
- Linking is analogous to using a library's card index to get reference to particular items, but it perhaps a faster and more efficient method compared to the traditional method.

New Authors' Rights relevant to Cyberspace

- Right of Communication
- Right of Making Available

The Right of Communication to the Public and the Right of Making Available to the Public

- The right of communication to the public is not, by any means, a novel right.
- It has its roots in the Berne Convention for the Protection of Literary and Artistic Works 1886 (“Berne Convention”), although commentators have rightly pointed out the inadequacies of protection conferred by the provisions therein.
- The modern incarnation of the communication right is to be found, *inter alia*, in Article 8 of the WIPO Copyright Treaty 1996 (“WCT”).
- From the plain wording of the provision, it is clear that Article 8 WCT encompasses not only the concept of “communication” to the public, but also provides for a specific and distinct right of “making available” to the public.

The Right of Communication to the Public and the Right of Making Available to the Public

- Singapore, a recent signatory to the WCT, chose to implement the Article 8 obligation through a fairly broad definition of the word “communicate” in section 7(1) of the Copyright Act 1987.
- In Singapore, therefore, the right of communication to the public comprises – (i) the “traditional” rights of the copyright owner to broadcast a work and to include the work in a cable programme, and (ii) the more “contemporary” right of the copyright owner to *communicate* or *transmit* his works to the public through the Internet and other digital media as well as to *make available* those works to the public within the meaning of Article 8 WCT.

The Right of Communication to the Public and the Right of Making Available to the Public

- It is important to distinguish between the concepts of “communication” on the one hand and “making available” on the other, as well as to identify some types of Internet activity which may fall within the scope of each right.
- The act of communicating is synonymous with the act of transmitting, which must mean that there is a start point and an end point to the whole process.

The Right of Communication to the Public and the Right of Making Available to the Public

- There is, first of all, the source or origin of the transmission and, at the other end, the point of reception.
- Obviously, the communication process is not complete without proper transmission and reception.
- In this regard, ISPs which help transmit digital material on the Internet from a host website/server to an end-user have necessarily participated in acts of communication, and the same is true for those who are engaged in broadcasting and cable-casting (generally, operators of “push” technologies).

The Right of Communication to the Public and the Right of Making Available to the Public

- In contrast, there is only one point of reference in relation to the act of “making available”.
- A work is, according to Article 8 WCT, made available to the public once members of the public can access the work from a place and at a time individually chosen by them.

The Right of Communication to the Public and the Right of Making Available to the Public

- The process of “making available” is therefore complete as soon as the act of providing access to the work in question is performed, and there is absolutely no need to make further reference to the point(s) of reception.
- In this respect, a content provider who uploads digital content onto a web server (and generally, operators of “pull” technologies) would have made the requisite information available to the public at that point, regardless of the subsequent number of recipients and their location.

The Right of Communication to the Public and the Right of Making Available to the Public

- Therefore, whilst the drafters of national copyright laws may have framed the Article 8 WCT obligation under the broad “umbrella” provision of the right of communication to the public, it must be emphasized that the copyright owner’s specific right of “making available” to the public is necessarily a separate and distinct right.

The Right of Communication to the Public and the Right of Making Available to the Public

- Consequently, even where it has been alleged that the copyright owner's exclusive right of communication to the public has been infringed, it is necessary, especially in light of the territoriality principle in copyright law, to enquire further into the precise nature of the defendant's infringing activity when determining where an infringement of copyright has occurred.

Do the following acts constitute copyright infringement?

- 1. *Fly-by-nite* (a sole proprietor) runs an online business where, for a small fee, members of the Internet community can visit his virtual “store” and purchase unauthorised digital copies of the latest hit song.
- 2. *Techie*, the IT manager of a medium-sized dot.com company, downloads for a fee an original piece of computer software (e.g. *Macromedia Flash*) and, as instructed by his superiors, makes multiple copies of it for the use of all company employees in the IT and web-design departments.

Do the following acts constitute copyright infringement?

- 3. *JJ*, a private individual, uploads to an Internet host server/website a digital copy each of several Hollywood films (prior to their official commercial release) for other Internet users to download for free.
- 4. *Digital Philanthropist*, a private individual, designates several files in his computer's hard drive as being available for sharing/swapping (for free, of course) with other users of a P2P file-sharing network.

Do the following acts constitute copyright infringement?

- 5. *Chatty*, a 25-year-old student, has numerous online “chat mates” with whom he ICQs on a daily basis. Recently, over several chat sessions, *Chatty* forwarded a large number of unauthorised MP3 files to all his online pals for their listening pleasure.
- 6. *Touch-me-not*, a university undergraduate, habitually downloads from the Internet – for his own personal consumption – unauthorised copies of music and movie files (each file or collection of files corresponding to a distinct song or movie title) and now has some 50 Gigabytes (GB) of copyright material stored in his computer’s hard drive.

Use of Trade Marks on the Internet

Issues

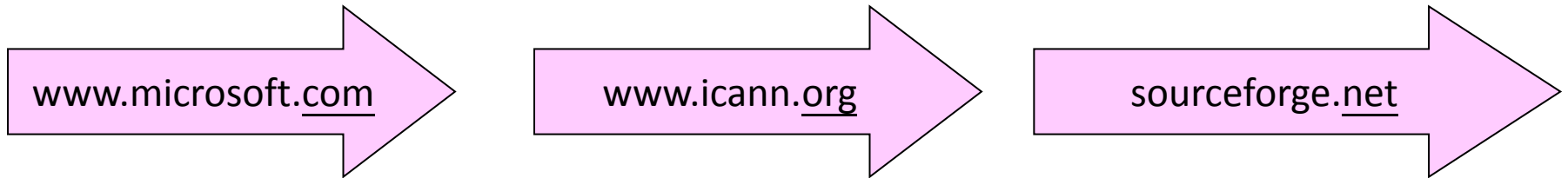
- Under what circumstances use of a sign on the Internet infringes trade mark rights
 - Trade marks and domain names
 - Use of trade marks as keywords by search engine operators
 - Use of trade marks within listings for non-genuine goods on auction sites
 - Use of trade marks on virtual objects that are traded in virtual worlds

Trade marks and domain names

- Uniform Dispute Resolution Policy (Singapore equivalent – Singapore domain name dispute resolution policy (SDRP) see <http://www.sgnic.sg>)
- Anti-cybersquatting Consumer Protection Act 1999

What's in a Domain Name

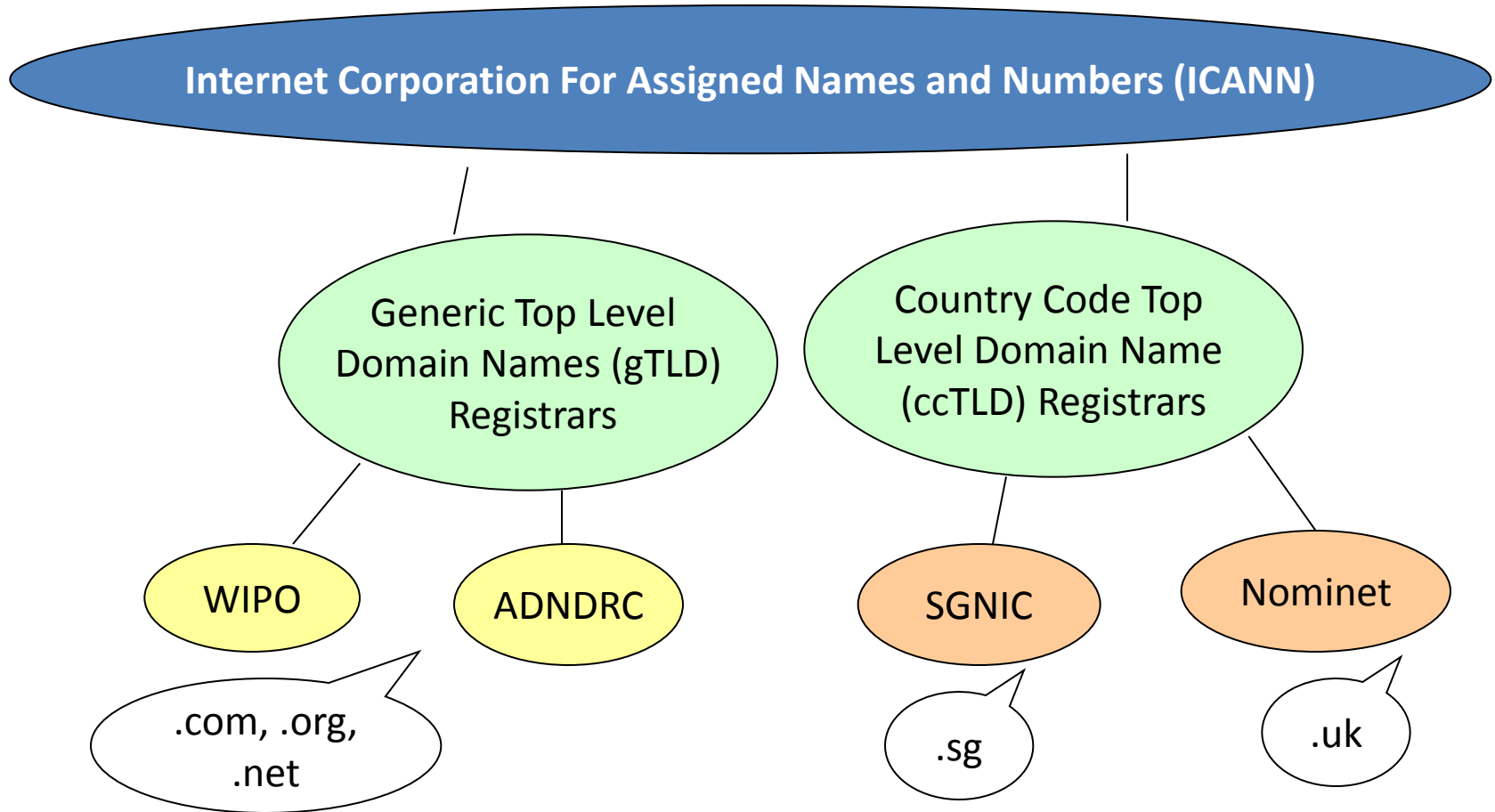
- Generic Top Level Domains (gTLDs)



- Country Code Top Level Domains (ccTLDs)



Domain Names Coordination



Types of Domain Name Disputes

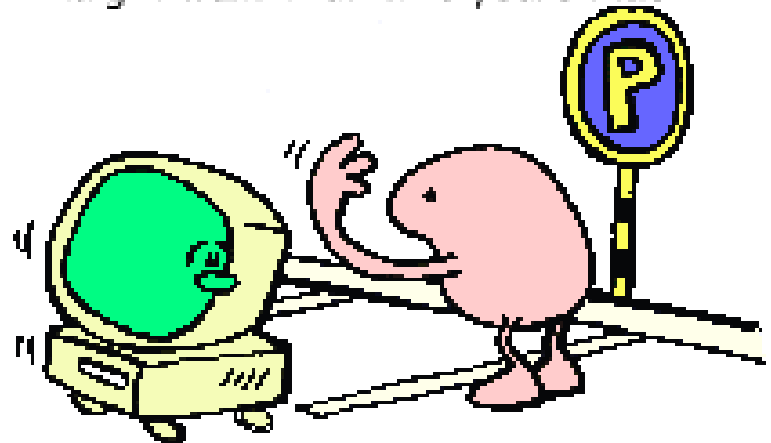
- Cybersquatting
- Typosquatting
- Registration by Competitors
- Conflicting Interests
- Parody
- Reverse Domain Name Hijacking



How are Domain Name Disputes Solved?

- Domain Name Dispute Resolution Policies
- Voluntary Negotiations
- Lawsuits

Hey! You can't park there mate...
I might want that in 10 years time



Uniform Dispute Resolution Policy

- A policy and set of guidelines for resolving domain name disputes
- Operated by ICANN across all gTLDs
- Implemented voluntarily by some ccTLD managers
- Part of the agreement signed in registration of domain name
- Implemented on 24 October 1999
- Low cost, administrative procedure for resolution of claims of abusive, bad faith registration
- Submission by respondent to mandatory, non-binding arbitration process

Uniform Dispute Resolution Policy

- Complaint initiated by trademark holder. He must prove:
 - He has a trademark (registered or unregistered) in a name identical or confusingly similar to the registered domain name;
 - The current domain name holder has no legitimate right or interest in the name; and
 - The domain name was registered and used in bad faith

Uniform Dispute Resolution Policy

- Remedies:
 - If the complainant wins
 - Domain name is transferred to the complainant
 - Domain name is cancelled
 - If the respondent wins
 - Domain name is kept
- Note: No monetary damages or injunctive relief.

Uniform Dispute Resolution Policy

- Outcomes:
 - Registrar implements the appropriate enforcement actions
 - Appeal is made and case is brought to court

Anticybersquatting Consumer Protection Act

- A cybersquatter registers domain names in an attempt to extort money from the trademark holder for transfer of the domain name.
- New domain name dispute law that is intended to give trademark and service mark owners legal remedies against defendants who obtain domain names "in bad faith" that are identical or confusingly similar to a trademark or service mark.

Anticybersquatting Consumer Protection Act

The plaintiff must prove the following elements:

- The Defendant has a **bad faith intent to profit** from that mark, including a personal name which is protected as mark;
- registers, traffics in, or uses a domain name that–
 1. in the case of a mark that is distinctive at the time of registration of the domain name, is identical or confusingly similar to that mark;
 2. in the case of a famous mark that is famous at the time of registration of the domain name, is identical or confusingly similar to or dilutive of that mark; or
 3. is a trademark, word, or name protected by reason of section 706 of title 18, United States Code (e.g the Red Cross)

A historic change to the internet's domain name system

- ICANN meeting in June 2011
- New internet address extension – internet addresses can end in city names, brands and generic words in any language and script.
- Expected to create a host of new ways to exploit the internet addressing system and could also trigger new disputes.

Liability of Internet Auction Sites for Trade Mark Infringement

- Commercial significance of online auction sites
 - Access to a vast consumer base
 - At low cost
- A brand name may be exploited unlawfully to attract buyers to non-genuine goods.
- Who should bear the burden of policing use of trade marks on these sites?
- The IP owner or the auction sites?
- Are auction sites ISPs and so entitled to exemption?

Case Law

- USA
- Tiffany v Ebay, 600 F.3d. 93, 103 (2010)
- Tiffany sued Ebay for the sale of non-genuine jewellery on the site.
- Direct infringement?
- Contributory infringement?
- Decision: Ebay was not liable on both counts.

Case Law

- UK
- L'Oreal SA v eBay International AG [2009] ETMR 53
- L'Oreal claimed eBay had committed trade mark violations based on theories of joint liability and primary liability.
- Decision: (a) eBay is under no legal duty to prevent infringement; (b) facilitation with knowledge and intention to profit is not enough.

Case Law

- France
 - The courts in France had held eBay to be liable for trade mark infringement in three separate law suits.
 - The courts held eBay to provide not only a hosting service but that it also acted as an online broker because it engaged in paid commercial activities and took an active role to increase the number of transactions generating commission for its own benefit.

Case Law

- Courts are attempting to strike a balance when allocating the burden of monitoring for trade mark infringement
- Judges have shown a willingness to protect the business model of the auction sites
- Thus, it appears that there is only an obligation to control only easily identifiable infringements.

Liability of Search Engines for the Sale of Trade Marks as Keywords

- When Internet users conduct an online search, two types of results are returned:
 - (a) natural results
 - (b) sponsored links
- Previously, use metatags to produce natural results, now rely on modern search algorithms.
- For sponsored links, they appear because certain websites (advertisers) pay fees to the search engine to ensure that their links appear following input of certain search terms (keywords).

Case Law

- The Google 'Adwords' Case – CJEU's decision
- Recent developments in the UK: *Interflora v Marks & Spencer*, CJEU's decision and English High Court's decision

Trade Mark Infringement in Virtual Worlds

- Massively multiplayer online role playing games (MMORPGs) or Virtual Worlds
- 'Second Life' – online social community created by Linden Labs.
- 'Second Life' facilitates and encourages user generated content (UGC).
- UGC can be sold to other users for virtual currency, which can be exchanged for 'real currency'.

Trade Mark Infringement in Virtual Worlds

- Users who create content retain IP rights in their creation.
- “Real life” brands have established themselves within ‘Second Life’.
- Real commercial element
- Risk that users may create and sell digital content which infringes the trade mark rights of real life brands.
- Also, risk that users may create and sell digital content in violation of the rights which have accrued to other users of ‘Second Life’.

Case Law

- US
- Taser International Inc. v Linden Research Inc.
- Eros LLC. v Linden Research Inc.

Trade Mark Infringement in Social Media

- Facebook
- Twitter
- MySpace
- YouTube
- LinkedIn

Patentability of Computer Programs and Business Methods

Is a computer programme patentable?

- A computer program vs. a computer program based invention
- Useful arts vs. fine arts
- Industrial arts vs. intellectual arts
- “Commercially useful” results or “utility in the field of economic endeavour”

Is a computer programme patentable?

- Other countries still retain the bars to patentability.
- In most countries, computer programmes are excluded from patentability.
- Copyright is seen as the proper vehicle for the protection of computer programmes.

Is a computer programme patentable?

- In these jurisdictions such as the UK and the USA, computer programmes are not generally patentable per se, but there have been cases where computer programmes have been granted patents indirectly, usually as being part of a piece of machinery or an industrial process.

Is a computer programme patentable?

- Diamond v Diehr [1981] 209 USPQ 1
- The United States Supreme Court confirmed that a computer-controlled process used in rubber curing was patentable.

Is a computer programme patentable?

- Gever's Application [1970] RPC 91
- Burrough's Corporation (Perkin's) Application [1974] RPC 147
- Gale's Application [1991] RPC 305

Two Alternative Approaches

- (1) The patent application should be considered without the contribution of the excepted thing.
- Re Merrill Lynch, Pierce Fenner & Smith Incorporated's Application [1988] RPC 1.

Two Alternative Approaches

- (2) If the patent claim is directed to a technical process which is carried out under the control of a program (whether implemented in the hardware or the software), then the claim cannot be regarded as related to a computer program as such.
- Vicom Systems Incorporated's Patent Application [1987] OJ EPO 14.
- Genetech Inc's Patent [1989] RPC 147.

Summary

- A computer program is not “a computer program as such” if it leads to a “technical effect”.
- 20,000 patents granted for computer implemented inventions in Europe

Different attitudes across different jurisdictions

- Differs widely from one jurisdiction to another.
- At one extreme, US law and Singapore law have no express limitation on patents for IT.
- At the other extreme, the law in Europe is relatively strict.

Patentability of Business Methods Inventions

- A General Overview
 - **U.S. Position**
 - More inclined to grant BM patents
 - **EPO (European Patent Office) Position**
 - Stricter as compared to the U.S.

United States

- A quick overview of US Patent Laws
- Article 1, §.6 of the Constitution
- Title 35 of the US Code and the Patent Act 1952
- “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof”

United States

- Most common types of patent:
- Patents of invention
- Design patents
- Utility model patents – machines, man-made products, compositions of matter and processing methods

United States

- Companies in the United States are being granted Internet patents
- No specific legislation for Internet/Business Methods Patents in the US
- But, USPTO is more liberal and more willing to grant Internet/Business Methods Patents after landmark decision in 1998.
- But, position may change after re Bilski.

Examples of US Companies granted Internet Patents

- Open Market
- Priceline
- Signature Financial Group
- Netcentives
- Cybergold
- Amazon.com

The Way Forward

- More and more business methods type of inventions are seeking the protection of the patent system
- Recently, insurance or financial companies are seeking to protect their new insurance or financial products.
- Examples of such business methods seeking patent protection include terrorism insurance, divorce insurance, insurance against frivolous lawsuits, coverage for gambling losses or foreign exchange losses, and insured lottery tickets.

The Way Forward

- Issues to consider:
- Whether patents should ever be granted to claims for Internet business methods?
- Are patents necessary to promote invention and innovation on the Internet?
- Would invention and innovation occur without patent protection?

Thank You!