



**Intellectual Property Rights
and
the Video Game Industry**

10 October 2003

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1. Introduction

Intellectual property rights (IPR) are an emotionally-charged topic in game development. Some see the potential for aggressive and unethical use of IPR as the single biggest threat to independent game development – let alone the tech and entertainment industries at large.

In January 2003, the IGDA formed the Intellectual Property Rights Committee to discuss the issues relating to IPR in games. With a pragmatic and balanced approach in mind, anyone was welcome to join and contribute to the work of the Committee. The Committee's current membership of forty includes developers, musicians, journalists, CTOs, CEOs, open source evangelists, students, academics and lawyers from North America, Europe and Asia.

The initial task for the IP Rights Committee was to create an environment where informed debate could take place. The purpose of this document is to provide definitions and information about intellectual property rights for everyone connected to game development, no matter what they do or where they are based.

This White Paper provides a *neutral* legal primer on the topic of IP rights – regardless of any particular viewpoint on the validity, appropriateness or moral use of various forms of IP protection.

Subsequent to this White Paper, the IP Rights Committee plans to discuss the ethical issues relating to IPR in game development. This will come through open discussion forums, additional information online, and a regular presence at developer conferences providing lectures and roundtable discussions on IPR issues.

Many thanks to all authors and editors that have contributed to this White Paper. As a volunteer effort, it is truly refreshing to see so many people share their time and knowledge with the game development community.

If you have any questions or comments, please email them to;

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10 October 2003

DISCLAIMER: This White Paper does not replace professional legal advice.

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3. A Quick History of IP Rights

Intellectual property law governs property created by the mind. While legal codes relating to physical property date back to the Babylonian *Code of Hammurabi* (c. 1750 BC), intellectual property law is a much newer phenomenon.

In 1474, the city of Venice passed the first intellectual property law. It protected inventors' interests by assuring their right to control the copying of their creations. In 1624, England enacted the *Statute of Monopolies*, which granted intellectual property rights to an inventor for a limited period of time.

The origins of the modern system of Copyright lay in the *Statute of Anne*. Passed in England in 1709, this act was revolutionary as it combined a number of competing rights and benefits. For the first time rights were granted to authors to control the publication of their work; in addition, the act recognised the public benefits of encouraging creative work by requiring that copies of a book were available in certain libraries.

The Copyright clause of the U.S. constitution, drafted in 1787, further codified intellectual property rights by giving Congress the power to "promote progress in science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries".

By 1883, growing concerns over the theft of intellectual property coupled with an increase in international trade led to the *Paris Convention for the Protection of Industrial Property*. It was the first significant international treaty regarding intellectual property protection and allowed individuals in one nation to obtain protection of inventions, trademarks, and industrial designs in other countries. In 1886, the *Berne Convention for the Protection of Literary and Artistic Works* established similar global protection for everything from poems and operas to paintings and architectural works.

Led by an impetus to promote and reward creativity by protecting the works of the mind, the *Paris Convention* and the *Berne Convention* combined to usher in the modern intellectual property regime. Subsequent developments in copyright and intellectual property law have sought to balance monopoly rights and social concerns in the face of progressing technology.

The global evolution of intellectual property (IP) reflects its increased importance in world trade, its role in creating a national identity, and its impact on the social and economic well-being of nations. The extent of protection and enforcement of IP rights has varied widely throughout the world; as IP becomes more important in trade, these differences become a source of tension in international economic relations. The *World Intellectual Property Organisation* (WIPO) was established in 1967 to promote intellectual property protection throughout the world. It administers the *Paris* and *Berne Conventions*, which grant IP holders internationally, recognised rights. Unfortunately, these treaties failed to provide ways to enforce those rights. New rules of trade were needed to introduce more order and predictability to the rights afforded.

From 1986 - 1994, the *Uruguay Round* negotiated the *General Agreement on Tariffs and Trade* (GATT) which addresses IP rights. GATT attempts to unite the way IP rights are protected

globally under uniformed international rules. The *Uruguay Round* produced the *Trade-Related Aspects of Intellectual Property Rights Including Trade in Counterfeit Goods* agreement (TRIPs) which contains provisions relating to all aspects of intellectual property. The aim of TRIPs was to ensure broad and strong minimum standards of protection, globally, across a wide range of intellectual property rights and ensure direct legal responsibility for their enforcement. Many countries lobbied for the TRIPs agreement to counteract the losses resulting from international counterfeiting and pirating. The proposal addresses a wide range of intellectual property rights, including trademarks, copyrights, patents and industrial designs, geographic indicators, semi conductor integrated circuits and trade secrets. It requires a member country to provide national treatment to nationals of other participating countries and permits trade sanctions to be imposed against other member nations for violation of its provisions. The agreement allows members to implement laws which give more protection than is required, so long as the additional protection does not conflict with the TRIPs provisions.

The WTO came into existence on the first day of 1995 as a result of the *Uruguay Round* negotiations. It acts as the administrator for GATT and other WTO trade agreements, a forum for trade negotiation and a handling body for trade disputes. The WTO in conjunction with the WIPO presently oversees the international protection of intellectual property through the TRIPs agreement. Under the TRIPs agreement member countries must comply with the substantive obligations of the *Paris Convention* and the *Berne Convention*. With the exception of the *Berne Convention* on moral rights, all members have changed their intellectual property laws to conform to the TRIPs agreement. Under the TRIPs agreement the Patent Term was revised to 20 years from the original filing date. In addition, limits were imposed on the use of compulsory licensing; only allowing it under certain conditions.

The TRIPs agreement also expanded the scope of copyright, including computer programs and databases as literary works for protection. It establishes a rental right for computer programs and protection for semi-conductor chip designs; prohibiting the importation of articles or products that contain infringing chips. The minimum term of copyright is set at life plus 50 years and, for legal entities, 50 years from first publication (but these terms can vary from country to country). For semiconductor chip designs, it increases the term of protection to 10 years and makes compulsory licensing permitted only for a public non-commercial use to correct anti-competitive behaviour.

Trademarks are also guaranteed a high level of protection. The TRIPs agreement requires a minimum of seven years protection, renewable at seven year intervals, and cancellation for non-use is permitted only after three years of consecutive non-use.

Presently, the explosive growth of the computer industry has required new laws to adequately protect the investment of developers. Constant developments in biotechnology have challenged the traditional principles of patent law which originally intended to protect mechanical and chemical inventors but now, has had difficulty being applied to micro organisms, plant varieties, and higher life forms. In attempting to afford greater protection to intellectual property rights, WIPO has provided further remedies for IP owners to enforce their rights. In 1994, 35 countries signed a Trademark Law treaty, granting service marks the same rights as trademarks. The treaty also streamlines the procedures relating to the registration and assignment of trademarks, making it easier to secure registration of valid trademarks throughout the world.

The emergence of the Internet and the recent development of digital technologies used to replicate movies and music has resulted in a demand for increased copyright protection. The WIPO Copyright treaty of 1996 provides advanced copyright protection by increasing the range of protected subject matter and expanding the range of modes of disseminating works which are regarded as infringing acts. Having encompassed technological changes and new areas of interest and concern, the treaty has widened and deepened the protection offered; reflecting the need to develop new norms and standards in keeping with advances in technology and business practices.

On 1 June 2001, WIPO members adopted the Patent Law Treaty to establish international minimum filing dates and standardised requirements for applications for national, regional, and international patents alike. Users of the patent system will thus be able to rely upon predictable and simple procedures for filing.

The increased protection afforded intellectual property has generated a debate on the appropriate scope of protection that society should afford intellectual property rights holders. Many question at what point does the granting of monopoly rights to creators stop conferring a benefit and begin heaping losses resulting from monopolies and a stifling of competition? Undeniably, as the printing press once compelled governments to develop copyright rules as a means of protecting intellectual property; technological innovations continue to exceed the conceptualisations of intellectual property law.

4. Forms of IP Protection

Intellectual property can be primarily categorised into Patents, Trademarks, Copyrights, and Trade Secrets. A brief summary of each category is provided below.

Copyright

Copyright is a right given to creators to control the distribution of their original literary or artistic works. The owner of a copyright owns exclusive rights to make a copy of the work, to issue copies to the public, to perform or show the work in public, and to create derivative works (such as a translation of the work, or its representation in another medium; the book version of a movie, or the movie version of a book). A copyright does not, however, protect the underlying idea or concept of the work.

Copyright is one of the easiest protections to obtain: once a work is created and fixed in a tangible medium of expression, it is automatically protected by copyright. The duration of a copyright under international law is the remainder of the creator's life plus 50 years (but this term can differ from country to country). However, in some nations these rights may be extended further; refer to the *Copyright* chapter for more detail.

Trademark

A trademark is a distinctive sign that indicates that specific goods or services are provided by a specific person, group, or business. Trademarks may be a combination of words, letters and numerals in addition to drawings or symbols. Trademarks can also be applied to the shapes of packaging of goods, music or vocal sounds, and fragrances. Even a colour that is considered a distinguishing feature can be trademarked.

Trademark protection prevents rivals from offering imitation goods and services under a name or image that is identical or too similar. The purpose is to prevent consumer confusion, so that the purchaser can be confident in the origin of the product which they are buying. The application for a trademark must provide a reproduction of the actual sign for which protection is sought and include a list of goods and services to which the proposed trademark would apply.

Trademark protection must be obtained through a formal application and registration process. You can obtain an international registration through the World Intellectual Property Organisation (WIPO), which has effect in over 60 countries worldwide. Two treaties - the *Madrid Agreement Concerning the International Registration of Marks* and the *Madrid Protocol* - give protection to trademark applicants from countries that are signatories to one or both of the treaties. In the US, and unlike copyrights and patents, a person can sue for trademark infringement without ever registering the mark. What in the US are called "common law" rights exist from the fact of use in commerce. German law trademark rights also exist in other jurisdictions (for example the United Kingdom and Australia). Also, the Lanham Act, the US federal trademark law, allows actions for "unfair competition" based on infringement of unregistered marks.

Once registered, trademarks can be renewed indefinitely by paying a periodic renewal fee. This makes trademarks especially valuable as the only publicly disclosed type of IP with the potential of immortality. Refer to the *Trademarks* chapter for more detail.

Patent

A patent is an exclusive right granted to an inventor to control production and distribution of an invention. A patent owner may take legal action against anyone who attempts to make, use, distribute or sell the invention as described in the patent documents. A patent protects more than one particular embodiment of the invention – it also protects variations if properly described in the filing. In order to achieve patent protection, the inventor must publicly disclose how they created the item so that anyone skilled in their area could reproduce it. The intent of patents is to spur innovation, ie building a better mousetrap, by encouraging inventors to share their knowledge in return for a period of exclusivity.

Protection of a patent lasts generally for a period of 20 years. Some countries have grants that are renewable or extendable under specific conditions, but generally a patent is not renewable once the patent has expired. Like copyright, once a patent expires, the invention enters the *public domain* and anyone may freely use the invention.

To qualify for patent protection an invention must meet certain criteria. An inventor must show novelty, utility, and non-obviousness of the item. Novelty requires that the item incorporate some feature that is outside the scope of existing knowledge in the particular technical area in which the invention spans. Utility refers to whether there is a practical use for the item. Non-obviousness requires that the patent contribute something new to technology as a whole. Once these criteria are met, governments can still refuse to issue a patent for an invention if its commercial exploitation is prohibited for reasons of public order or morality, or if the invention has been previously offered for sale. Refer to the *Patents* chapter for more detail.

Trade Secrets

Simply put, a trade secret is a secret that, by virtue of its secrecy, provides a business advantage; for example, a "secret recipe," a "secret algorithm" or invention, a list of customers or employees or marketing plans. A trade secret owner may take legal action against anyone who improperly discovers or reveals the secret; for example, an industrial spy, disgruntled employee, or another company who violates the terms of a non-disclosure agreement.

The legal definition of a trade secret varies from country to country and, where applicable, from state to state. Today, the *Uniform Trade Secrets Act* (UTSA) gives us the most widely accepted definition of a trade secret. In fact over 44 U.S. states have adopted the same language used in this act, as their own definition of a trade secret.

"information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (1) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (2) is

the subject of efforts that are reasonable under the circumstances to maintain its secrecy."

Trade secrets are not registered with any government, or published in any catalogue, nor do they have a finite legal lifetime - they are, after all, secrets. A trade secret can be conveyed safely only to others who are contractually bound to maintain secrecy. That a given piece of information is a trade secret of a specific company, must be proven in court only after the fact - when and if the secret is ever compromised.

To qualify as a trade secret, the information in question must be a legitimate secret; common industry knowledge cannot be appropriated as one's own trade secret. In addition, the owner of a putative trade secret must demonstrate that proactive measures (non-disclosure agreements, labeling, secure storage, employee handbook guidelines for handling) were taken and remain in place to protect the secret. Once a trade secret has been disclosed to the public by proper means, it can no longer receive trade secret protection. Refer to the *Trade Secrets* chapter for more detail.

5. Copyright

Copyright is a set of property rights created by statute that give the copyright owner exclusive rights to authorise or prohibit others from exploiting a copyright work. These rights include the right to copy, rent, perform or broadcast a work, issue copies of the work to the public, or make an adaptation of the work.

There is no need to register copyright to obtain protection. The rights granted by copyright arise automatically on creation of a work that satisfies the prerequisites for copyright protection and falls within a category of protected subject matter. However, in some jurisdictions (for example, the US) copyright must be registered before infringement proceedings can be filed in court.

Copyright only lasts for a finite period of time. The duration of protection is generally 50-70 years, depending on the type of copyright work. Once this period expires, the work can be freely copied and exploited.

What Does Copyright Protect?

Copyright protects the expression of ideas, not the ideas themselves. For example, the idea/concept of role-playing games, or third person shooter games, is not protected by copyright. Rather, it is a particular expression of these ideas (for example, the software code for an individual game) that is protected.

Only certain kinds of subject matter qualify for copyright protection. The categories of work include literary, musical, artistic and dramatic works, sound recordings and films. Literary works include computer programs and databases. To qualify for copyright protection, a computer game must therefore fall into one of these categories. However, games today can be complex multimedia works and as such can fall into more than one category - typically, a computer program or a film. Individual game components (for example, the code, artwork, sound track, script) may also be protected by copyright as separate works.

What Rights Does Copyright Confer?

The rights granted by copyright are generally economic rights in that they give the copyright owner exclusive rights to control the exploitation of the copyright work. The precise nature of these rights may differ from country to country. However, they generally include the right to copy, rent, perform or broadcast the work, the right to issue copies of the work to the public and the right to adapt the work or do any of the previously mentioned acts in relation to an adaptation of the work. If a person does any of these things without the copyright owner's consent, they will be infringing copyright in the work (unless they can rely on a statutory defence).

Some jurisdictions (for example, Australia and the European Union) also grant copyright owners, or authorised licensees, the right to take action against persons who manufacture, distribute or advertise devices that circumvent copy-protection measures used in connection with the copyright work. The US Digital Millennium Copyright Act similarly affords statutory protection against devices that circumvent copyright protection. This right is particularly useful to those in the console game market, where copy protection measures are often used in games

and/or consoles. Sony has recently used this right to bring legal proceedings against distributors of "mod-chips" for the Sony PlayStation and PS2 consoles.

What Are The International Differences In Copyright Law?

The law of copyrights has presented the most famous difference of intellectual property rights between the United States and some EU member states.

Civil law (EU) countries developed a system oriented towards rights of the author, creating bundle of rights known commonly as "moral rights." Moral rights consist of :

- 1) The right to decide whether, where, how and by whom to publish a work,
- 2) The right to attribution;
- 3) The right to integrity of the work;
- 4) The right to retract the work.

United States copyright law defines no specific body of "moral rights" per se. Rather, the US Copyright Act grants authors exclusive rights consisting of:

- 1) The right to make copies;
- 2) The right to make derivative works;
- 3) The right of distribution;
- 4) The right of public performance;
- 5) The right of public display.

Under the US Copyright Act the right to make copies and distribute can largely achieve the same goals as the right to publish under a civil law system, and the right to integrity can be largely protected under the right to adapt or make derivative works. Of the remaining two moral rights, attribution is most firmly established, but remains alienable in the US unlike EU member state Germany. The right of retraction in the US would be a difficult task but could probably be achieved pre-publication through a creative use of certain case law.

Neither the US nor the EU requires registration of copyright. Problematically, as there is no independent record, copyright is not registrable at all in most European countries, whereby - unlike in the United States - it is only ever assessed and affirmed as a right as a result of court proceedings. Only France offers an unambiguous, registrable *droit d'auteur* ("author's right", literally), which relies upon the author registering their work to the corresponding 'Société des droits d'auteur' ("Author's Rights Society", literally) much like they would in the US.

Another broad difference in copyright laws of the EU and United States involves what is commonly referred to as "fair use" rights in the United States. Fair use allows for the discretion of deciding what activity may constitute an infringement to the courts. For example, parodies are blatantly derivative works, but in most cases US courts have ruled that parodies constitute fair use on the grounds that they are a form of social commentary. In the EU copyright directives there is no such fair use parallel, and all exceptions are proscribed with no room for member states to add to the exceptions at their discretion. In contrast, copyright owners in the US can

expect a dynamic case law that may periodically add activities to the "fair use" penumbra of excepted activities. Both cases are described in more detail in the following sections.

Copyright Protection in the US

Copyright protection in the US is governed by the Copyright Act, a national statute first passed by Congress in 1790. The act was amended in 1980 to extend coverage to computer programs, defined as:

"a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result"

Comprehensive, relevant, and controversial reforms and expansions of US copyright law were introduced in the Digital Millennium Copyright Act of 1998 (DMCA).

The DMCA acknowledges as international treaties agreements including the Berne Convention, the Universal Copyright Convention, the Geneva Phonograms Convention, the WTO Agreement, the WIPO Copyright Treaty, and the WIPO Performances and Phonograms Treaty in order to help establish a consistent global copyright framework. It also introduces new statutes specifically intended to protect digital media, including:

- Prohibition of defeating copy protection mechanisms on copyrighted works, other than for fair use.
- Prohibition of manufacture and distribution of technology intended to defeat copy protection.
- Prohibition of falsification or modification of copyright management information.
- Elimination or reduction of liability of an Internet service provider or telecommunications system operator under specific conditions when copyrighted material flows through or is stored in its network, while establishing the provider's right to remove infringing content from such a system.
- Establishment of the right of a software licensee to make archival copies.
- Expansion of copyright laws related to musical performances, films and video, and artistic designs.

The US allows registration of copyrights, and although registration is not required, registered copyrights receive favorable treatment under the law. Registration is very inexpensive (\$30) and very easy. The benefits of registration include:

- Eligibility for Statutory Damages of up to \$150,000, in addition to the Actual Damages available in any copyright suit.
- Eligibility to seek an award of Attorney's Fees from the infringing party.

One anachronism is that registration of software code requires the first and last twenty pages of the program to be submitted, which can be complicated to ascertain for today's complex systems.

US copyright law has its vagaries. The doctrine of fair use, mentioned previously, often leaves it to the courts (and multiple layers of appeal) to decide the issue of infringement. For example, it is not clear, under US law, whether reverse engineering of software constitutes fair use or infringement. Additionally, US States as legal entities are exempt from certain laws that apply to US citizens; under some conditions it may be legal for a state or local government to copy a protected work, even though such copying by a citizen would infringe on the rights of the copyright owner.

Copyright Protection in the UK & Europe

Copyright is protected throughout Europe via a complex web of international conventions, treaties, agreements and European Community (EC) Directives. From a geographical perspective, this discussion is limited to the protection of copyright in countries that are Member States of the European Union (EU). The EU currently comprises 15 Member States (including the United Kingdom, Germany, France, Italy, Greece, Spain, Finland and Sweden). Although Switzerland is not part of the EU (maintaining its neutrality), it has enacted national copyright law compatible with various EC copyright Directives. The EU is also preparing for the accession of 10 eastern and southern European countries (including Hungary, Poland and the Czech Republic) in May 2004.

A concerted move to harmonise the copyright laws of each Member State started in the 1970's, with the ultimate objective of removing obstacles to the establishment of a common market in Europe. Like trademarks, designs and patents, copyright is a creature of a country's national laws, which therefore places limits on the territorial extent of these rights. At a European level, these territorial limits were removed for trademarks and designs with the creation of Community trademarks and Community designs. However, there has been no proposal for a Community copyright. The harmonisation of copyright in Europe is instead achieved by a succession of international conventions, treaties and agreements, such as the Berne Convention and the Universal Copyright Convention, and EC Directives on copyright which attempt to establish a uniform framework for copyright protection.

As signatories to conventions and as members of the EU, Member States are required to enact national legislation that implements these conventions and EC Directives. Over the years, this has led to differences at a national level in interpretation of requirements. This, together with the discretion sometimes given to Member States in choosing what to implement, means that national differences in copyright law still exist throughout the EU, despite the attempts at harmonisation.

What does 'harmonisation' mean at a practical level?

Firstly, there are no registration formalities to achieve copyright protection in the EU. Copyright protection arises automatically on the creation of a qualifying work. However, the concept of a "qualifying work" may vary between Member States.

Another important concept of European copyright harmonisation is the principle of exhaustion of rights. This principle erodes the territorial monopoly protection of copyright and is aimed at ensuring free trade throughout Europe. In simple terms, the 'exhaustion' principle means that once a product has first been sold in Europe by the relevant copyright owner or with their permission, the product can be freely traded within the EU. A computer game can therefore be first sold in Germany and subsequently imported into the UK and neither the copyright owner in Germany nor the UK can rely on copyright to prevent this trade. However, the UK copyright owner can rely on copyright to prevent the sale in the UK of copies of a game produced outside the EU, where those copies were not imported into the UK with that copyright owner's consent.

Despite the attempts at harmonisation, differences also remain at a national level both in the scope of copyright protection and the remedies available for copyright infringement. For example, the Continental approach is based on the protection of individual authors, whereas the Anglo-American approach (adopted by the UK and Ireland) focuses on protecting both individuals and corporate bodies. There are also variations in the remedies available for copyright infringement. In short, the remedies available to a copyright owner whose game has been pirated will depend on the law of the Member State where the piracy occurred.

In conclusion, although it is generally safe to assume that computer games will be protected by copyright throughout Europe, the "devil is in the detail". It is sensible to get advice on what should be done to secure your copyright rights (for example, getting copyright assignments from freelance programmers) and how to manage your European distribution strategy to ensure that you can take full advantage of copyright protection throughout Europe.

6. Trademarks

A company's brand (whether a word, name, symbol or a combination thereof) is what sets it apart from its competitors. A brand identifies and distinguishes a company's goods or services (by reputation, quality, or otherwise) from those of others. Over time a brand can become an extremely valuable asset, beyond the intrinsic value of the individual goods and services to which it is applied, due to the goodwill it generates from consumers.

Trademark law provides the legal protection for this valuable asset. Trademark protection gives a company the exclusive right to use a trademark in commerce on or in connection with a specific class of goods or services. Trademark law addresses two concerns: first, it protects the public's interest in being able to accurately identify the source of goods and services, and second, it protects trademark owners against the loss of sales and damage to reputation that may occur if others are permitted to use a confusingly similar trademark.

Importantly, trademark is the only publicly disclosed type of IP that is potentially perpetual. That attribute alone is worth pursuing to build value in your game company and game ideas.

What Can Be Protected By Trademark?

Virtually anything that can be expressed on the application form and can be applied in some way so as to identify a source. Word marks are by far the most valuable type but graphical devices such as logos are often protected this way, along with shapes, smells, sounds and even gesticulations!

By enforcing its trademark rights, a company can prevent others from using a confusingly similar trademark to market the same or similar goods or services.

When selecting a trademark, it is important to remember that since a brand is intended to act as a unique identifier as to the source of goods or services, the more distinctive the brand, the easier it will be to obtain trademark protection. For example, a trademark like Kodak™ is distinctive since it does not describe the product and is not a generic term. If a company selects a more descriptive or generic term, it will not be able to obtain trademark protection until such time, if at all, that it can establish that consumers recognise that the brand is identified with that specific company.

In the United States, trademarks are divided into five categories. The categories are broken down to reflect the strength of the mark. Mark strength is an indicator of strength of protection that translates into IP value. The categories are:

Fanciful – Fanciful marks are the strongest marks. They have no meaning other than the meaning a company associates with them. Examples of fanciful marks are Tetris and Eidos.

Arbitrary (sometimes called "coined") – Arbitrary marks are also strong. They are English words, but are not associated with the product until the company associates them. An example of an arbitrary mark is Apple for computers (or Ion Storm, or id).

Suggestive – A suggestive mark is a natural English word (or phonetically similar word) that suggests the product it represents, but does not directly describe it. These are the weakest marks that companies can normally get protection for. Examples of suggestive marks are Electronic Arts for a maker of video games; PlayStation for a console game platform; and Centipede for a game starring a centipede.

Descriptive – Descriptive marks are very weak marks. They are essentially useless unless a company has used them so much that they have acquired secondary meaning. This usually requires massive advertising and public exposure. In short, don't pick these as trademarks. Examples of descriptive marks include Oatnut for a bread with oats and nuts, Computerland for a store, and Yellow Pages used for telephone books.

Generic – Generic marks are things like table or box or video game. A generic term can never be converted to a trademark in the US.

Once a company has obtained a trademark, it is important to police that trademark and make sure that others are not using it without permission or as a generic word to describe an activity (such as "coke" used to mean any soda pop). If a company fails to do so, it may find that its trademark has lost its status as a "unique" identifier of the company, and it may not be able to stop others from using it. This is what happened to trademarks such as "aspirin" and "escalator" which once received trademark protection but are now considered generic terms anyone can use. In contrast, Xerox™ conducted a rigorous marketing campaign to make sure that consumers did not begin to use "xerox" as the verb to denote photocopying.

Given the time, effort and expense that goes into developing a brand it is advisable, prior to using a proposed trademark, to conduct searches to identify if anyone else is already using the same or a similar trademark in a way that could potentially detract from or prevent the proposed use of a trademark. The two types of trademark searches available are searches of trademark registries and "common law" searches. A search of US federal and state trademark registries (such as at www.uspto.gov) will find whether someone has attempted to file for registration of a given trademark. A common law search will look at other sources of information such as newspapers, periodicals, business directories and Internet search sites to see if a trademark that has not been registered is nevertheless being used, and therefore afforded legal protection. A motivated individual can independently conduct limited registry and common law searches. There are also a number of service providers that will, for a fee, generate a fairly comprehensive report of potential conflicts from both trademark registries and common law sources.

Registering a Trademark

The main steps in registering a trademark are:

1. Identify a mark and the goods or services to which it is applied
2. Perform a clearance search if a new mark is being adopted
3. File a first application for Registration to provide a first filing date
4. File convention applications outside the country of first filing (within 6 months)
5. Prosecute applications to grant (including overcoming Registry objections and/or third party oppositions)

6. Pay renewal fees to maintain the registrations in force

The amount of time it takes to register a trademark varies, but it usually takes no less than nine months and can take substantially longer depending upon a number of factors, including the current length of the backlog at the trademark office in the country of registration and whether anyone objects to the attempted registration.

A general shift towards resolving conflicts by an opposition, rather than relying on the trademarks registry to raise objections, has resulted in solicitors being more active in the trademarks field. It is not unusual for solicitors to re-assume responsibility for a case under these circumstances as part of their professional diligence. This allows trademark agents to deal with issues before the trademarks registry.

Nevertheless, a company can begin using a trademark prior to its registration. In the UK and the US, trademark protection is renewable every 10 years.

How much is it going to cost?

Obtaining registration in most European countries is going to cost less than £1,000 per country if the mark is inherently registrable and does not conflict with any existing registrations. If a new mark is being adopted it is advisable to ensure that the mark is not descriptive of the product and potential conflicts have been avoided. There is a large grey area between the extremes of marks that are registrable without difficulty and those that are not registrable at all. Any potential problem with registration will be reflected in the cost of obtaining registration.

Costs in the United States are comparable to those in the UK after adjustment for prevailing exchange rates. Thus, trademark registration in the US costs around \$2000.

What qualifications and experience should I look for?

You should identify a firm with expertise in the trademark registration area, although often a trademark will be filed in parallel with a patent application. Thus patent agents also file trademark applications or liaise with in-house colleagues to ensure that, where appropriate, the technology is understood and the best protection is obtained in terms of drafting specifications of goods.

International Differences In Trademark Protection

Trademarks are perhaps the most similar of the IP regimes between the US and EU member states. The EU has passed a Directive that operates very much like the federal protection regime in the United States, creating fairly predictable levels of protection throughout the Union for registered marks based on international agreements.

It is important to note that trademark protection is country specific, meaning that use of a trademark in the U.S. does not grant the user any protection in the United Kingdom. Trademark protection only extends to the geographic area in which the trademark has been used. It is

important to examine the laws of the jurisdiction in which you seek trademark protection in order to learn the requirements and protection afforded by local law.

Under the Community Trademark system no allegation of use or intent to use is required. In the United States there must be evidence of use or a declaration of intent to use within a six months. For registrants in the United States, some type of brand building activity should occur prior to registration and priority in rights disputes are given to the first to use. In contrast, registrants of a Community trademark are entering a "first-to-register" system, and can plan for protection of important trade or service marks ahead of general business operations.

Rights regarding unregistered trademarks have not been harmonised in the EU, resulting in some disparate results in various member states. It also complicates the process of registration since current registrants have a harder time tracking unregistered marks. Even further, this can complicate a company's ability to reduce liability if a thorough investigation of the local market for unregistered marks is not done.

Obtaining a state or federal registration is not required in the US to establish legal rights in a trademark. A company obtains trademark rights in the US through its actual use of a trademark. Generally, the first party to use a trademark in commerce with a particular type of goods or services enjoys legal trademark protection, has the right to use and register the trademark and the ability to prevent others from infringing its brand. There are however some advantages to federally registering a trademark with the U.S. Patent and Trademark Office, including:

- (i) A legal presumption of the registrant's ownership of the trademark and the right to use it nationwide in connection with the goods and/or services listed in the registration;
- (ii) Constructive notice to the public of your claim to ownership of that trademark;
- (iii) Gaining additional judicial remedies, such as access to Federal courts, which can be used against an infringer; and
- (iv) The ability to use the U.S. registration as a basis to obtain registration in foreign countries.

The US system distinguishes between so-called "strong" registered trademarks (entered into the Principal Register) and so-called "weak" registered trademarks (entered into the Supplemental Register). Strong trademarks (those that are distinctive, non-geographic, and unlikely to be confused with any previously registered mark) receive favourable treatment by US courts; for example, a strong trademark is presumed to have been used nationwide from the date of registration, and its owner is granted an incontestable right to use the mark after five years. Incontestability is not automatic, it must be requested (Section 15 affidavit) and paid for. Differences exist among US State laws regarding unregistered marks, but they are less sharp than those in Community law.

An additional discrepancy is becoming obvious after the United States' recent ascension to the Madrid Protocol, an international agreement establishing a rudimentary international trademark registration system. In the United States, partially because of the first use requirement, trademarks and service marks are defined very narrowly (one mark may be very similar to another if they are used in different industries), whereas under the Madrid Protocol marks - rather the services or products associated with them - can be defined very broadly.

For answers to specific UK branding/trademark questions or for information about UK trademarks in general or how to register a trademark, one can:

- (a) Consult with an attorney;
- (b) Visit the UK Patent Office website at <http://www.patent.gov.uk> ; or
- (c) Contact the Enquiry Unit at 0845 9 500 505.

For similar concerns in the US:

- (a) Consult with an attorney;
- (b) Visit the U.S. Patent and Trademark Office's ("USPTO") website at <http://www.uspto.gov> ; or
- (c) Contact the U.S. Patent and Trademark Office's Trademark Assistance Center at 1-800-786-9199.

Within the EU:

- (a) Consult with an attorney;
- (b) Visit the Office for Harmonisation in the Internal Market website at <http://oami.eu.int/> ;
or
- (c) Contact the OHIM at (+34) 965 138 800.

7. Patents

A patent is an exclusive right granted to an inventor for their invention. A patent owner is protected from anyone who may attempt to make, use, distribute or sell the same invention. When in possession of a patent, the patent owner can give, assign, license or sell the patent rights to others.

Patents have double-edged importance to technology users: they allow an inventor potentially to earn licensing profits from his or her inventions, and they represent a potential focus of litigation to anyone intentionally or unintentionally using patented technology without an appropriate license.

Many patents claim improvements to existing technology. Although a patent grants the owner the right to exclude others from using those improvements, it does not grant the owner any rights to use the existing technology on which it was based, whether alone or in concert with the patented improvement. Independent creation of a technology does not exempt one from liability for infringement on existing patents.

What Can Be Patented?

To qualify for patent protection an invention must meet certain criteria. An inventor must show novelty, utility, and non-obviousness of the item. Novelty requires that the item incorporate some feature that is outside the scope of existing knowledge in the particular technical area in which the invention spans. Utility refers to whether there is a practical use for the item. Non-obviousness requires that the patent contribute something new to technology as a whole. Once these criteria are met, governments can still refuse to issue a patent for an invention if its commercial exploitation is prohibited for reasons of public order or morality, or if the invention has been previously offered for sale or disclosed publicly.

In the United States, "any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereof" that satisfies the aforementioned novelty, utility, and non-obviousness criteria might be patentable. Software per se is not patentable, but software as used to run a machine is; thus, patent claims related to software generally also include a general description of the machine (computer hardware) in which the software runs and the purpose of it. Some business methods are patentable as processes, as are some engineered or hybridised plant species. The "visual ornamental characteristics embodied in, or applied to, an article of manufacture" are also patentable, as designs. Nuclear weapons technology and other inventions against public policy are excluded from patent protection. In order to file for a patent, the inventor must provide documentation showing "reduction to practice", in other words that they have successfully demonstrated that their invention works. They must also describe at least one example (or "embodiment") of how they have done it, in enough detail that a similar expert could replicate their invention (although they would not be licensed to use it).

Similar criteria apply in the UK; however, genetically engineered species, medical methods of diagnosis or treatment, abstract methods of playing games, business methods, presentations of information, and computer programs are specifically excluded from patent protection. Designs are registered, rather than patented, in the UK.

Generally throughout North America and Europe, discoveries, laws of nature, ideas and theories, and inventions contrary to laws of nature (e.g. perpetual motion machines) cannot be patented and the subject of the patent must be suitable for application in some form of industry; industry being broadly defined to encompass any activity that is not purely intellectual or aesthetic.

Filing for a patent

The main steps of filing for a patent are:

1. Identify an invention that could be patentable
2. Obtain technical information from the inventor
3. Draft a patent specification including claims for comments and approval
4. File a first patent application to provide a first filing date
5. Review search results
6. File convention patent applications outside the country of first filing (within 12 months)
7. Prosecute patent applications to grant
8. Pay scheduled renewal fees to maintain the patents in force

From a first meeting with inventors to placing a patent application on file will take about 6 to 8 weeks. A prosecution time of circa 2 (UK) to 4 (US) years for obtaining patent grant would be typical in most countries. Obtaining patent grant in Japan takes considerably longer.

It is also the position that if the proprietor of a patent needs to rely on a declared priority date (which may be an earlier patent application filing date), the description in the priority application needs to contain an enabling disclosure before the filing date of the earlier application can properly accord priority to an invention claimed in a later invention. This follows case law, particularly in the United Kingdom.

Patent Pending

The terms "patent pending" and "patent applied for" refer to an actual pending application in the US Patent and Trademark Office. The term patent pending may also refer to a type of application called a provisional application that has been filed with the USPTO. In other words the term patent pending does not imply that the application has or will be granted, just that it has been filed by the company. Companies that misuse these terms are subject to sanctions under US law because misuse of the terms is viewed as an attempt to deceive the public by claiming an aura of IP protection that the item does not actually have. For further information;

<http://www.uspto.gov/web/offices/pac/doc/general/faq.htm#a1>

What is in a Patent Application?

Patent claims define the scope of a legal right, giving the Patentee the right to stop others from committing infringing acts that fall within the scope of the claims. In order to be awarded this "monopoly", the inventor must disclose his invention in the form of the patent description such that details of how the invention is worked are placed in the public domain. Thus, after the patent

expires, anyone is then free to make use of the information disclosed. The question therefore arises as to how much information should be included in this description.

Generally the claims, drawings and description of a patent application should include sufficient detail to teach an average practitioner in the inventor's field of discipline how to implement the invention. From a strategic perspective, it often proves true that the more limited the scope of the claims, the more likely that an Examiner will grant the patent but the broader the scope of the claims, the greater the protection.

Most national statutes amongst European countries, which are consistent with the EPC and the PCT, state that the specification of an application shall disclose the invention in a manner clear enough and complete enough for the invention to be performed by a person skilled in the art. A patent once granted may also be revoked if it is found that this condition has not been satisfied.

When drafting a patent specification intended for a national Patent Office Examiner in Europe, such as the British Examiner, it is essential to presume that its intended addressee (a person skilled in the art) is of no more than average knowledge and competence and that this person must not be required to exercise any invention in carrying out the instructions given in the specification. When a patent specification is being used as the basis for an international filing program, it is necessary to take account of the requirements in the countries of interest and, in particular, to draft the specification to meet the highest level of requirements.

Statutory provisions in the United States says that the specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art which it pertains, or with which it is most nearly connected to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out this invention.

Thus, in the United States, the written specification must meet three written requirements, in a much more stringent fashion than in Europe:

1. It must be sufficiently descriptive to enable one skilled in the art to practice the invention. This is sometimes referred to as the enablement requirement in the United States and is substantially the same as the sufficiency requirement in Europe.
2. It must contain a written description of the invention. This is sometimes called the written description requirement.
3. It must disclose the best mode of practising the invention contemplated by the inventor. This is sometimes called the best mode requirement.

On reading a granted patent it is important to realise that the description was filed before the claims were decided on and approved. In many cases some claims are rejected, resulting in a description more broad than what was actually allowed for the patent. Therefore the claims are the first area to review in determining what the patent does or does not cover, with the description available to interpret what is meant by the particular claims allowed.

It may take as much as two or more years to have an application decided, so it also good to keep in mind that even if existing patents may not seem to cover what you are researching, there may be patents about to be granted that would be relevant. Although many pending applications in the US are now available for searching and review at USPTO's web site, this does not include all of them.

How much is it going to cost?

Initially, a major factor will be the complexity of the invention, in order to draft a patent specification including claims. Attorney's fees for patent specification will usually cost between £ 1,000 and £ 10,000, and possibly much more depending upon the technical field of the invention. In the particular field of software inventions, it is safer to budget between £ 5,000 and £ 12,000.

Thereafter, cost will be determined to a greater extent by the number of countries in which protection is required. The total prosecution cost from start to finish is typically in the region of £ 3,000 to £ 5,000 per country, excluding drafting the patent specification itself - the initial major factor referred to above. Obtaining patent protection in the United Kingdom, the United States, Japan, Germany and France could cost £ 25,000. International applications under the PCT defer costs by little more than a year, but national phase entry is still required, at which point the total costs from start to finish apply as described above.

Patent-related attorney's fees in the United States are comparable after adjustment for prevailing exchange rates. Thus, to draft a patent specification software could cost between \$10,000 and \$20,000, with an additional \$10,000 in prosecution fees per country.

National governments typically assess fees for filing, issuing, and renewing patents. In the U.S. these fees depend upon the complexity of the patent application and can range from under \$500 to several thousands of dollars; US fees are halved for individual inventors and small business owners. Keep in mind that each time a response or filing update is needed there will be more fees. The UK offers substantially lower filing costs but imposes an increasing annual renewal fee of £ 50 to £ 500 after the first five years of protection.

The Cost of Infringement

Patent disputes center on two issues: the validity of the plaintiff's patent, and whether the defendant infringed.

In the US, patents are presumed valid and the burden of invalidating the patent rests on the defendant. Notwithstanding this burden, the plaintiff incurs substantial risk by filing suit: his or her patent may be invalidated, destroying its commercial value.

Patent litigation can be quite expensive, with one US source estimating monthly costs per party a minimum of \$15,000 to \$20,000 for the typical two-year duration of a patent lawsuit. Typically the owner of a patent litigates to obtain money, and the defendant wants to get on with business as soon as possible; both parties have a strong interest in settling before trial.

If a US court finds that the defendant infringed the plaintiff's patent, the court can determine a reasonable royalty and order the defendant to pay that royalty to the plaintiff; alternatively, the court can award the defendant's profits to the plaintiff. In cases of intentional infringement, the plaintiff could be awarded treble damages and attorney's fees. The court might also or alternatively issue an injunction prohibiting the defendant from using the plaintiff's patented technology.

Do all patent agents have the same qualifications and experience?

No. Technical background varies significantly. It is important to find an agent who has some experience in the field in which you are seeking to obtain a patent. When seeking patents abroad it is important to find an agent familiar with the patent laws of the foreign jurisdiction in question.

International Differences in Patent Protection

In both the US and EU member states patents are difficult and expensive to obtain, and thus play less of a role for the high-speed gaming industry than trademarks and copyrights. Some countries grant a similar type of protection under a less exacting standard for "utility designs." If a patent is obtained, however, the right to license its use is exclusive to the owner.

Differences between and among EU member states and the US do exist. A few examples follow; this list is by no means comprehensive.

In Europe, patent applications are made public 18 months after first filing. In the US, the inventor has the option to keep their patent application secret until the patent issues, the rationale being that if the patent never issues, the inventor will be entitled to Trade Secret protection.

Germany treats the issues of a patent's validity and its infringement separately (obscuring the ability to claim invalidity as a defence to infringement). England, however, is a unitary system, where the issues can be considered concurrently. Another example is the fact that there appears to be no patent reciprocity in England, so that non-English persons or entities will have to apply for individual protection.

As the national differences in patent law are myriad, one should consult with qualified agents and attorneys before and whilst undertaking to obtain international patent protection.

Perhaps the most significant area of difference between international patent laws is covered in the next section.

On Sale and Public Use Bars to Patenting

Game developers pursuing patents should be aware of two important mistakes that can lead to invalidation of their patent at a later date or prevent their patent from being issued at all. From 35 U.S.C. 102(b) we learn that no invention can be patented in the US if it has been "on-sale" or in "public-use" for more than a year before a patent application is filed. Importantly, this includes efforts to sell the invention as well as actual sales. Be aware that licensing inventive technology

without the appropriate safeguards can also be considered public use or sale of the invention. There are some types of licensing and use that are permitted. These types of use include the "experimental use" negation of the 102(b) bar. This negation, simply stated, is that some types of use or sale are allowable if they are for experimental purposes. This is not a defence to rely on. It is difficult to prove and often unsuccessful. Clearly, the best way for an inventor to treat the 102(b) bars to patenting is to do nothing that can appear to be a public use or sale. Inventors should guard their inventions with secrecy until the time of patent application. This includes no attempts to sell, license, loan out, or use the invention until the patent application is filed.

In many non-US jurisdictions there is not even one year after the invention being "on sale" or in "public use", and the inventor immediately forfeits their right to patent the invention.

8. Trade Secrets

A savvy business can employ the legal doctrine of Trade Secrets as a cost effective measure to protect its valuable Intellectual Property (IP). Using trade secrets to buttress copyrights, trademarks and patents is a powerful mechanism to protect any company's or individual's IP.

Although American and International laws recognise the importance and value of IP, trade secrets are the only form of legal protection that allows a company's IP (often research) to remain secret. The concept of trade secrets protects not only positive research (research that leads to a productive result), but also negative research (research that does not lead to a productive result). Negative research is extremely valuable: if a competitor could ascertain the results of a company's research and identify which procedures, processes, etc. do not lead to a productive result, then that business does not have to commit the capital to conducting that research and can reallocate those monies to other R&D, or advertising, or marketing.

What does a Trade Secret Protect?

The legal definition of a trade secret varies from country to country and, where applicable, from state to state.

Today in the US, the Uniform Trade Secrets Act (UTSA) provides a widely accepted definition of a trade secret:

"information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (1) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (2) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy."

In addition to the UTSA, whose adoption is voluntary with each of the states, the US Congress has enacted a national act criminalising certain forms of trade secret theft. The Economic Espionage Act of 1996 makes illegal the misappropriation, copying or unauthorised possession of trade secrets. The Act does not contain a definition of trade secret, relying on case law interpretation which includes the UTSA. Fines are established of up to \$5 million for a private violation and \$10 million if a foreign government, instrumentality or agent is involved. The Act also provides for substantial imprisonment. The Economic Espionage Act is in addition to, and does not supersede, the UTSA or other comparable state laws.

In the UK, a trade secret is any information known to only a few people, the disclosure of which to others would constitute a breach of confidence. The laws that protect other kinds of confidential information from disclosure (Law of Confidentiality) also protect trade secrets in the UK.

Unlike patent protection, trade secret status does not provide any right or authority to prevent another company independently developing the same or similar technology, from marketing or otherwise using their technology.

Notwithstanding trade secret status, business information not covered by client-attorney privilege or similar exemptions is subject to government subpoena (and therefore, limited disclosure) when so ordered by the courts.

How to establish a trade secret

Regardless of the legal jurisdiction in which a company resides, the company benefits from understanding the factors that will confer trade secret status, and developing a proactive plan to avoid misappropriation of the company's trade secrets.

It is paramount that a trade secret is a legitimate secret. Knowledge common throughout the industry cannot be appropriated as one's own trade secret. Nor can information, which would qualify for trade secret status had proper means been employed to protect the information, qualify if the proper means were not utilised. Once a trade secret has been disclosed to the public by proper means, it can no longer receive trade secret protection. Conversely, if a trade secret has been discovered, disclosed or disseminated through any improper means, such as theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, or espionage through electronic or other means, the trade secret protection remains intact.

Therefore it is paramount for businesses to create and successfully implement "proper means" (procedures and protocols to ensure that their trade secrets are protected). A company can utilise the following tactics to protect its trade secrets:

- **Employee Handbook and Agreements:** Adopting an employee handbook that informs an employee that he or she will be entering into a confidential relationship with the employer. Additionally, the handbook should include all relevant policies with signature blocks located next to the pertinent information. This can also be covered in employment agreements.
- **Non-Disclosure Agreements (NDA) / Confidentiality Agreements:** NDAs and other forms should be signed by all employees of a company and also by any potential partner or third party to which trade secrets could be disclosed. The existence of an NDA still requires that all trade secrets be clearly indicated as such, so that those involved have been notified which information the NDA pertains to.
- **Segregating Trade Secrets:** Trade secrets should be stored in locked file cabinets or secure computers, and / or contained in areas with restricted access to ensure that only people who need to view the information are granted access.
- **Document Marking and Formal Conveyance:** Documents divulging trade secrets should be marked clearly (generally on the cover, and also on each page) as proprietary and confidential; the company may additionally endeavour: to maintain a signature and date register of employees and others who have received copies of such documents; to establish prohibitions on copying of such documents by other than a central administrative department; to prohibit disposal of the documents in unsecured dustbins; to require destruction of such documents by shredding or incineration; to require formal reporting of all destruction and copying.

Trade secret protection last for as long as the secret remains so.

How Much Is It Going To Cost?

Security and administrative costs make up the bulk of costs associated with establishing and protecting a trade secret. Trade secrets are not registered with any government, or published in any catalogue, nor do they have a finite legal lifetime - they are, after all, secrets.

To establish trade secret rights in court, it is not necessary to protect the secret using the strongest available security measures. Rather, one must establish that reasonable measures were in place at the time of disclosure, so as to preclude or marginalise the risk of accidental disclosure.

Nonetheless, disclosure of a trade secret can cause a business irreparable harm. By definition, this means that no amount of monetary compensation or goodwill can mitigate the negative effect of disclosure on the business. Most NDAs and Confidentiality Agreements contain a clause to this effect; to the extent that such a clause is accurate, a company should commensurately protect its trade secrets (and those conveyed to it by others) from willful as well as accidental disclosure.

Some security-conscious (not necessarily games-related) companies inspect employee personal effects at entry on to and exit from the premises, prohibit the use of cameras on-site, require employees to close the blinds on their windows, filter all public internet file transfers, and allow only specific employees to carry mass storage devices, blueprints, or other media in which trade secrets could be smuggled all in the name of protecting trade secrets.

What qualifications and experience should I look for?

One does not typically employ counsel or an agent until such time as a trade secret is disclosed; at such time one should select a firm employing staff with a thorough understanding of contract, confidentiality and trade secret law in the pertinent jurisdiction.

Companies employing dedicated security staff should establish and communicate security enforcement policies related to protection of trade secrets, and consult with qualified staff or agencies to assure that these policies are simultaneously respectful of employee's human rights.

International Differences In Trade Secret Protection

European Community law does not specifically protect trade secrets or undisclosed information, although the UK, France, and Germany (among others) do have such laws.

The UK protects trade secrets using the Law of Confidentiality; consequently, a company must explicitly contractually bind in confidence anyone to whom trade secrets might be disclosed.

State Law, rather than Federal Law, protects trade secrets in the US. Forty-four US States use the definition of trade secret found in UTSA; six others use their own definitions. When trade secrets are transmitted over a telecommunications system such as the Internet, it might not be obvious to either the sending or receiving party which state or national jurisdiction has legal authority.

9. Overview of Intellectual Property in Video Games

Introduction

All games, regardless of their type, content, country of origin, target platform or supporting media, comprise some combination of copyrights, trademarks, patented technology and trade secrets.

A finished game often contains many different intellectual properties, owned by many different parties. Sort of like a soup, it can contain a few ingredients or many. Just as a soup's ingredients are categorised - broth, meat, vegetable, herbs/spices - the IP "ingredients" or assets in a game generally fall into basic categories: code, art, audio, and design. Within each category, some assets are created "from scratch" while others are licensed from others, whether for reasons of efficiency or publicity. The individual assets may be protected by copyrights, trademarks, patents, trade secrets, or some combination of the above. The following list will parse out some common property rights found in a completed game and the assets to which they might apply.

Copyrights in Games

Copyright is probably the best-known Intellectual Property Right (IPR) to the game industry at large and sometimes considered to be the only relevant IPR in this area. Anything that can be fixed in a tangible medium (including computer media) can be the subject of copyright: source, object and machine code, artwork, design docs, budgets, and business plans, some user interface and program structure, sequence and organisation.

At its most basic level, copyright in a finished game protects the code embedded on the medium, e.g. the DVD-ROM, the cartridge or even the file made available for download. Entertainment software piracy is typically fought as copyright theft actions rather than any other type of action, because it is often much easier to prove than patent or trademark infringement: the test is that the copyrighted work is copied or not.

It is a mind-boggling puzzle to the uninitiated to determine exactly the scope of copyright protection in a game, because there exists as many different copyrights in the game as original works of authorship featured therein. For instance, the musical score, the game-specific font, the artwork, the code in its entirety or in function-specific portions, etc. may each be subject to the copyright of a different author.

Types of Copyrights Found in Finished Games

Adopting a top-down approach to this exercise, the following types of copyright may apply to a finished game:

- The code encompassing all of the features of the game (graphical user interface, music, speech, etc.) attracts copyright protection as a literary work, because it is the expression in written, albeit coded form of these features.

- All of the original design documents, either as computer files or sketches or print-outs also attract copyright protection as literary works, because they are expressed in writing.
- Concept artwork may separately attract copyright protection as artistic works - but note that there is no requirement that they be "artistic" in the "pleasing to the eye" sense of the word, merely that they be graphic works (or sculpture, photograph or collage).
- Motion capture data may attract copyright protection as a dramatic work, since a dramatic work is generally understood to include a "work of dance or mime".
- The plot or script may also attract separate copyright protection as a dramatic work.
- The musical components of the game, whether relating to cut scenes or in-game audio, will attract separate copyright protection as musical works; note that only the printed or encoded musical score attracts this type of copyright protection, since the lyrics are protected as a literally work.
- Generally, any type of sound sample, or reproducible combination of sound samples, attracts copyright protection as a sound recording

A finished game may also fit the legal definition of a sound recording, film, broadcast or cable program, attracting additional forms of copyright protection. Some examples are provided below:

A game might fit the legal definition of a sound recording in the sense that it reproduces encoded sound. An in-game song therefore attracts three copyrights (musical, literary and sound recording) whilst speech samples attract two or three different copyrights (literary, sound recording and - depending on the degree to which voice acting pertains to the plot of the game - a dramatic work copyright).

For the purposes of copyright protection, films are legally defined as "a recording on any medium from which a moving image may by any means be produced." A game might fit the legal definition of a film, and therefore be protected by a film copyright, insofar as it is stored on a medium and reproduces encoded moving images. Note that the definition only refers to the image, because the soundtrack will have a separate copyright as a sound recording.

A finished game incorporating wireless networking technology may attract copyright protection as a "broadcast", which is legally defined as "a transmission by means of wireless telegraphy as visual images, sounds or other information which is capable of being lawfully received by members of the public, or which is transmitted for presentation to members of the public".

A cable program is legally defined as "consisting of wholly or mainly of visual images, sounds or other information", wherein the difference is that a "broadcast" is a wireless transmission, eg "over the airwaves", whereas a "cable program" is a transmission "by means of a telecommunications system other than wireless telegraphy".

Both the broadcast case and the cable program case offer unresolved legal scenarios. Mere use of a wireless network doesn't constitute a broadcast - but what does? What constitutes conveyance

over a telecommunications system? The downloading of the game? The transmission of images over an AV cable from game console to television?

The above analysis only outlines the vast complexity of determining the extent of copyright protection in a finished game. This extent will obviously depend upon both the type and size of the game itself, but protection is only available so long as the work it relates to is tangible, ie it is expressed (in code, obviously) and not merely an idea in the mind of the developer.

Copyright Example

By way of example, let's consider a simple example with a classic game known to all, Tetris. At its most basic, the game inventor Alexey Pajitnov would originally own the copyright in:

- The game code as a literary work;
- The display as a graphic work; and
- The tunes as a musical work

If, however, at least one of the tunes was written by a friend, then this friend would own the copyright in the musical work BUT Mr Pajitnov would still own the copyright in the code comprising this tune, although possibly infringing his friend's copyright.

Similarly, if the patterns on the bricks in the display were taken from abstract drawings by yet another friend, then again this other friend would own the copyright in the Tetris bricks BUT Mr Pajitnov would still own the copyright in the code and display comprising those bricks, although infringing his friend's copyright.

Copyright is the basis of license-based games and, in the 'Tetris' example above, Mr Pajitnov would therefore seek a license with both his friends to legally include their respective original works of authorship in his game.

Today's games comprise 3D worlds full of avatars, realistic models and textures, dialogue, music, lyrics, cut-scenes, etc. Potentially many more copyright licenses need to be addressed in the production of a contemporary game.

Trademarks in Games

The first and most obvious use of trademarks in games are the names and logos associated with the game, the publisher, and developer. Commonly, publishers and developers will have registered their company name and/or logo and/or even signature sound sample as trademarks, whereby these are traditionally included within the game in splash screens during the game's introduction, possibly, further within the graphical user interface of the game itself, and on the box and advertisements.

The specific characters, places and weapons will also be the subject of a trademark, in some cases these are licensed from other entertainment properties.

Beyond the trademarks associated with the game as a product, there is frequently inclusion of trademarks or servicemarks not directly related to the game itself or its developers or publishers, by way of textures implemented onto in-game billboards, models, racing cars etc. This can be done for the purpose of heightening the immersion or accuracy portrayed by the game, or as advertising for those real-life sponsors. An example would be the livery of a rally car during the 2003 season, complete with real-life sponsors' names and decals plastered all over, all of which are expectedly real-life registered trademarks.

Whereas the use of real-life registered trademarks in games can be a desirable state of affairs, in that it lends a degree of reality portrayal, there is a danger that some trademark owners either will not want to license their brand for reproduction in a game or -worse- will not actually have a right to do so. In addition, if permission is obtained, the trademark owners will require their mark to be accurately portrayed.

Pushing this comment to its logical extreme, owners of registered trademarks or servicemarks may even insist upon the inclusion of the international legal notice and - if this insistence is only notified late in the development cycle – this may generate supplemental, unnecessary overheads.

Types of Trademarks Found in Finished Games

- Game name and logo
- Company name and logo
- Technology name
- Platform and manufacturer name
- Distinctive sounds or colours
- Name and character designs of characters
- Slogans of original IP
- Unique weapons
- Other valuable marks.

Trademark Example

Readers with an inquisitive mind may want to consult a judgment by Justice Jacob (UK, Court of Appeal) on 26/06/02 against THQ following a trademark dispute between the Fund (formerly World Wildlife Fund) and the World Wrestling Federation, whereby THQ's continued marketing of its World Wrestling Federation licensed games in the UK with the newly disallowed WWF logo would amount to contempt of court because of the logo's presence on-screen, whether as a splashscreen or as an arena-billboard texture!

This example makes the point that even a licensor may encounter trademark issues that can spill over retroactively into a game. While this example could not have been anticipated by the game developer, care should always be taken about trademark and/or servicemark inclusion in screens, textures or any other portion of the game.

Patents in Games

Patents are the least-known IPR to the game industry and usually held as the most expensive and frequently irrelevant IPR. They certainly are the most controversial. It may come as a surprise to the industry, however, that software patents have been granted for a lot longer than attention has been devoted to the subject both in the US and in European game communities, and that a growing proportion of those are very relevant to technology used for modern game application, be it in the fields of scene rendering, networking, user interfaces, animation and algorithms to speed up any of these.

It is comparably harder to determine which patented technology is routinely incorporated in games but, by way of example, any title making use of semi-transparent menus or multiple frame buffering or distributing portions of the game world across networks, could be potentially infringing on one or more patents; the list goes on, interminably. Whether the patent assignee decides to challenge the use made of the technology protected therein depends entirely upon what the assignee has to gain from asserting its existence and validity.

Patents last for about 20 years, depending upon the jurisdiction. Many once-lucrative patents covering base computing technologies such as side-scrolling or use of interchangeable ROM cartridges have lapsed into the public domain. Nonetheless, 20 years is a long time in game development, and some technology or algorithm developed 5 years ago for which patents were granted only last year may remain valid and useable for the next 10 to 15 years. In lean times or for an assignee developer on the acquisition trail, enforceable patents that are infringed present significant opportunities.

Types of Patents Found in Finished Games

Areas of a game that could involve patents include:

- Applied algorithms
- Display presentation
- Menu arrangement
- Editing functions
- Control functions
- User interface features
- Compiling techniques
- Program languages
- Translation methods
- Utilities
- Formulae to control program execution or process data
- Many other areas

Patent Example

Controversy tends to arise when patents sometimes issue on inventions that seem obvious to those more involved in the industry in question, or when patent holders sometimes attempt to enforce patents in scenarios to which they do not apply. But sometimes, valid patents issue and the claim of infringement is valid.

U.S. Patent No. 4,662,635, *Video Game With Playback of Live Events*, covers the use of "separable action events performed by living beings which remain as originally recorded when played back" (in other words, pre-recorded live action sequences) in a specific type of video game.

According to public press releases and articles in Wired Magazine, the legal representative of the patent holder sent a certified letter to Scott Miller (CEO, Apogee Software Ltd.) in August of 1997 demanding that Apogee "immediately cease and desist from further manufacture, sale and use of such animated video games" including Duke Nukem 3D.

Mr Miller was obviously distressed, and suggested that the patent should not have been granted and that the game industry fight to have the patent overturned. Duke Nukem 3D spawned several sequels, which are still being manufactured and sold.

Did the patent apply, or didn't it?

Some would argue that U.S. Patent No. 4,662,635 applies only to games in which the user selects which branch of a story to follow, causing a VCR or DVD to advance to the corresponding scene. Others would argue that it applies to any pre-recorded live performance in a video game. You can examine the patent yourself at <http://www.uspto.gov>. Pay particular attention to the section labeled "Claims," as it is the section that matters most in Court.

Whether the patent applied to *Duke Nukem 3D* or not, the claim of infringement created a substantial business distraction for Apogee. Regardless of the perceived validity, receiving a "cease and desist" letter of this kind is a sure sign you need the services of a patent lawyer.

Trade Secrets in Games

Trade Secret would apply when developers do not release their game and asset source code to the public, and take measures to prevent disclosure of this source code to both the public and competitors. This does not apply to open source games or those games where the source code and graphics are easily viewable (for example, on a CD as part of a "mod kit").

Trade Secret protection acknowledges the right of a business owner or corporation to keep business information secret for purposes of supporting the business or maintaining a competitive advantage.

Types of Trade Secrets Found in Finished Games

Trade secrets may include:

- Source code
- Object code
- Machine code
- Firmware
- Any concepts, ideas, methods, processes, or documents related to the creation of software or other game assets, including characters, storylines, drawings, including tools and techniques

- Business plans and methods
- Marketing plans
- Customer lists
- Databases
- Many others

Trade Secret Example:

The Quake 2 game engine from id software has been licensed privately to dozens of companies, and has also been released to the open source community under the GNU Public License (GPL). Raven Software then licensed the Quake 2 engine privately to create the game Heretic II, and modified the engine to provide an intelligent 3rd person camera. Subsequently, Raven Software released some of the source code to Heretic II for use by the "mod" community, but did not release the source code for the 3rd person camera or other engine modifications as they were considered trade secrets.

10. IP in Game Design

In order to set the scene it's important to first define 'Game Design' in this context. Game Design is the art and science of creating the game itself. Not the code or the graphics, but the ideas, stories, worlds, characters, gameplay mechanics and so on. It is the stuff that goes in a design document.

The first thing to note is that your game design is copyrighted by virtue of being simply written down. Of course it is good to take steps to ensure that the copyright is recognisable by saving the document and printing it with the appropriate copyright symbols or text.

The next thing to discuss is when you can claim something as original intellectual property. You could argue that almost everything has already been thought of and the term "original" is questionable. You and I may have the same thought at the same time. To each of us it is an original idea and we would each want to claim it as our own intellectual property. If however, you write your thought down (thus earning a copyright), and I don't, then you get to claim the intellectual property and I can say only 'I thought of that, too!' Many others have likely had an idea that is very similar to yours. If you make a game that has Orcs and Elves in it, is it an original idea that can be claimed as intellectual property? The term "original" has a very loose definition in copyright law. So many different and yet similar "original" ideas can all earn their own copyrights, thus protecting your intellectual property.

So what can you claim as intellectual property then? Can you claim plots, storylines, characters and settings as intellectual property? In general the answer is yes, as long as your particular plot, storyline, character, etc, is not so similar to somebody else's work that a reader would easily be confused as to which is which. If I make a game that involves a secret agent, set in today's world, named Sam Fisher, I would likely have a problem because those elements were already used in the game *Splinter Cell*. I can make a game like *Splinter Cell* if I want, as long as it isn't identical to or substantially the same as *Splinter Cell* itself.

In today's game design world many people practice the art of S&M. Not that one!! Stealing and modifying although some prefer 'borrowing and adjusting' or 'using and tweaking' or 'derivative.' You take the best ideas from some other game and you change them around the way you like. Is this new product your own intellectual property? As long as you changed things enough, probably. Think about the game pitch where you say "It is like Starcraft, only better." How much like Starcraft is it? If you have 3 races that are just like Starcraft's, you might have a problem claiming intellectual property. If however, you say it's like Starcraft because it's an RTS game, set somewhere in space, in the future, with 3 races, but significantly different then maybe you are ok.

Many times it isn't the content that is worthy of an intellectual property claim, but instead the way in which the content is used within the game. Take a look at Battlefield 1942 for example. It is set in our real history. Nobody can claim that the story of World War II is their intellectual property, nor the battles or locations where they took place. But BF1942 clearly has some intellectual property in it, notably the way in which things are presented to the player including all the graphics, sounds, and controls.

The most important thing is to avoid plagiarism. One must avoid any outright stealing of other's work. It is not fair to them and you would likely find yourself in trouble eventually. You should also be mindful of giving credit to others where due, although that does not allow you to use their copyrighted property without permission. Even if you were only inspired by someone else's work then consider giving them some credit.

11. IP in Code

When the gamer loads up your game, all he sees is the surface layer. But beneath the wizards, jet fighters, spaceships and fantastic landscapes lies something meaningless to most gamers but of vital importance to you – the code. Without the code, a game is little more than a great design document and a lot of individual art pieces. For the gamer, the code is the invisible heart of the game; for the developer, it is the beating heart of your business. Fortunately, intellectual property laws offer an array of tools to protect software code: in addition to the same sort of copyright protection available to the visual artwork and story components of a game, software code may be further protected by patent and trade secret laws.

Copyright

Game code is made up of many parts, with different authors and different companies to which those copyrights are assigned. Many developers use or purchase basic libraries to more quickly build their game. They may also reuse code used for a prior game (theirs or another). When developing the code it is important to consider the appropriate copyright notice to place in each file header. In some cases more than one copyright may apply to the file.

Often samples and example code are distributed for free access and use on companies' web sites or newsgroups. The copyrights for these should also be noted, and copy of the permission preserved in case a future dispute arises.

In the US, copyright of code requires that the developer submit the first and last 20 pages of code with their registration. Practice is to include the main loop of the code, plus some modules that do not represent sensitive areas (since this material will be made public).

NDA's, development licenses, and game development contracts will often determine the ownership of copyrights for material associated with the game.

From the early days of computing through to the present day, the exact scope of copyright protection for software has been the subject of ever-changing debate. Whatever its boundaries, copyright law clearly protects software code. As in other copyright contexts, the useful feature of U.S. copyright law is that you do not have to take any action to enjoy copyright protection. Copyright automatically attaches to "original" works "fixed in a tangible medium". In the U.S., copyrights may be registered with the U.S. Copyright office (<http://www.loc.gov/copyright>) and with the US Customs Office (<http://www.customs.gov/>) in order to protect against the importation of illegal copies. Two international copyright treaties, the Berne Convention and the Universal Copyright Protection, have been accepted by a wide range of countries. The U.S. Copyright Office offers advice on registering under these treaties, as well.

Patent

Unlike the visual art and written stories of games, software code may be eligible for patent protection. As for other patent areas, in order to enjoy patent protection, software code must be "novel", "non obvious" and useful. The code itself is not patentable, however, unless it is

described in the context of solving a particular problem, and in association with a particular piece of hardware (even if generalised to be a computing device).

As with copyright, the assignment of patents is often defined in NDAs, developer licenses, and development contracts.

Unlike copyright, once an invention has been used in a game that has been offered for sale (to a publisher, etc) there is a one year clock to initiate the application in the US patent office. So patent protection needs to be established during early R&D, before the developer knows for certain the value of the invention. Once the clock expires, the invention is then either in the public domain or a trade secret. It is not possible to take a longstanding trade secret and decide to later apply for a patent.

With patents, there is no such thing as automatic protection, and a U.S. patent only offers protection in the U.S. The process of applying for a patent is complex, lengthy and moderately expensive. Not to put too fine a point on it, you will need a lawyer to apply for a patent. There are international treaties such as the Paris Convention and the Patent Cooperation Treaty that offer some international cooperation, but individual countries tend to be prickly about their own patent systems. More information on the U.S. patent process as well as international protection is available from the U.S. Patent and Trademark Office (<http://www.uspto.gov/>). Consider carefully whether to pursue a patent. Although complicated and expensive to acquire, a patent is regarded as an extremely valuable business asset.

Trade Secret

Trade secret protection applies to code related to a game that is not easily viewable. This would include software tools, encoded file formats, and some parts of the software code itself. However due to the ease of reverse engineering software, copyright protection should also be employed in all of these cases.

There was a time when trade secret law provided the exclusive form of protection for software code. Although that is no longer the case, trade secret law is still an important tool for protecting your code. Unlike copyright and patent, there is no central registry for trade secret protection. Rather, trade secret status emerges from the way you treat the information or product you seek to protect. To borrow a phrase from Gandalf the Grey, "Keep it secret. Keep it safe." In litigation, a court will examine whether you made a serious effort to protect the trade secret from disclosure. In the US, trade secret protection is a matter of state law, so it varies a bit from state to state. In most states, however, trade secrets are protected both in tort and contract law. When putting together a beta test, for example, you will almost certainly want to include one or more provisions in the terms of use designed to establish the necessary secrecy and to build in the protection of contract law. Again, a lawyer is probably a wise investment here.

Software code can also be protected under unfair competition laws. Such laws run outside the scope of this brief essay, but their existence is worth noting.

12. IP in Audio

Introduction

Acquiring music and sound effects for use in a video game can be one of the easiest or most frustrating aspects of the development process. This portion of the white paper will give a brief summary on what a developer must consider when selecting or creating music for a new game. It should be noted that this chapter only covers general aspects of music licensing. It is meant for informational purposes only and does not constitute legal advice. Whenever you are attempting to acquire intellectual property rights, you should always consult an attorney with knowledge in this area.

Rights in Music

Acquiring the rights to use music in games is tricky because any recorded song actually contains two separate copyrights; one in the sound recording and the other in the underlying musical composition. In order to properly obtain the right to use a performance of music in a game, you must obtain the rights to both the sound recording and the musical composition.

The sound recording embodies the legal right to the actual recording made from a musician's performance. Sound recordings are referred to as "masters" in the music industry because a sound recording is recorded on master tapes at a studio. Sound recordings on the master tapes are typically owned by record labels as opposed to the musicians who made them. Record labels typically require the musicians to assign the copyrights in and to the sound recordings to the labels on a work-for-hire basis when musicians sign recording contracts.

The musical composition embodies the legal right to the actual written song. The musical composition is completely separate from the sound recording, and therefore, it has a separate copyright. This is the case even when the musical composition and the sound recording are created by the same artist. A good way to distinguish the musical composition from the sound recording is by contrasting the song recorded on a CD to the song as embodied in sheet music. When you purchase sheet music, you are not paying for the sound recording, but rather for the musical composition of a song. When you purchase a CD, you are buying the sound recording of a musician's performance and at the same time you are also buying the underlying musical compositions embodied in the musician's performance on the CD. The rights to musical compositions are often controlled by a completely different set of people than those that own the rights to the sound recordings.

Typically, musical compositions for pre-existing music are fully owned, co-owned, or administered by music publishers. As a result of several years of consolidation, the major music publishers are for the most part owned by the same multinational conglomerates as the major record labels. For example, the music publisher Warner/Chappell is owned by Time Warner, Inc. and the music publisher Sony/ATV is owned by Sony Corporation. Because major record labels have sister music publishing companies, oftentimes new bands will assign their rights to the musical compositions of their songs to their record label's publishing affiliate when they sign a recording agreement.

Getting Everything At Once: The Work Made-for-Hire

The easiest way to obtain music rights for your game is to hire someone to compose and record original music for you specifically for the game. By doing so, you can assure that you will own both the sound recording and the musical composition rights from inception, and will not have to worry about tracking down rights from various record labels and music publishers for pre-existing music.

If you do hire someone to write and record music, you need to make sure that you have everyone involved in creating and recording that music sign a written "work-for-hire agreement." A work made-for-hire is a copyrighted work created by an employee within the scope of his or her employment, or a work which is commissioned for, among eight other categories, audiovisual works. 17 U.S.C. 101(2003) [2]. Typically you would require the creators to provide assurance that the work they are providing is original and not copied from another work. Because copyright rights in a work can only be transferred through a signed written instrument, work-for-hire agreements are crucial to proving that you have all of the rights to the music created for your game. In fact, these documents are so important that publishers will require you to guarantee that you have executed work-for-hire agreements for all of the people that worked on your game when you enter into a publishing deal. In some cases they will require review of these agreements.

By hiring someone to compose and record original music, you can obtain all of the rights you require at once, which as you will see from the discussion below, can be much easier and much cheaper than acquiring pre-recorded music.

Master Use Licenses

If you want to use pre-recorded music in your game, you will have to go through a two-step process of acquiring the required rights. First, you must obtain the right to use the sound recording from the record label which owns the song you want to use. This is done through an agreement called a "master use license." The agreement is named so because you are acquiring a license to use the "masters" of the sound recordings from the record label. You will need to contact the marketing or "special markets" division of the record label which owns the previously-recorded masters you wish to license. Typically, marketing divisions are reasonably responsive to licensing issues, especially given the drastic downturn in CD sales over the past few years. Many major labels will even grant discounted or free licenses to publishers or developers for the use of music by new artists. Although you may have a relatively easy time obtaining the required Master Use License, this is only half the battle.

In many cases the licensing of pre-existing music is handled by the game publisher, rather than the developer. If the game license has music associated with it, say a theme song for a TV show, the publisher may or may not have acquired the rights to use or imitate that theme song when they acquired the license. In turn, the creators of the TV show may or may not have acquired the music for the show with any ancillary rights to use it in other mediums. It is important to specifically clarify what music rights have been licensed before commissioning or composing music for the game, as it will determine whether a close copy is permitted, or whether the music has to be entirely different.

Synchronisation Licenses

Recall that the Master Use License only gives you the right to use the sound recording of a song for your game. You will also have to obtain the right to the underlying musical compositions. To obtain these rights, you will have to execute a "synchronisation license" or "sync (h) license" with the owners of the musical compositions. These licenses are called "synchronisation" licenses because you are obtaining the right to "synchronise" a song in timed-relation with a visual work.

Unlike the masters, which are typically owned by record companies, musical compositions may be owned by each songwriter who contributed to the musical composition and each of their respective publishers, or to any party to whom the songwriter may have assigned these rights. Finding out who owns a particular musical composition can therefore be very difficult. A good place to start is searching the websites of the U.S. performance rights societies. These societies keep track of and manage the payments to music publishers for the public performance of musical compositions (i.e. on radio, television, sports events, nightclubs, etc.). These websites can be found at www.bmi.com, www.ascap.com, and www.sesac.com. While these sites will not have information on every song, they will have listings for most popular music. If you cannot find the song you are searching for through these websites, it is possible that the song is administered by a separate international performing rights society.

Once you have found the correct music publisher or publishers, you must contact their respective licensing departments to negotiate a license fee for the use of the musical composition. Music publishers tend to be less responsive regarding licensing opportunities than the marketing divisions of record labels. At the same time, music publishers can also be tough negotiators. If multiple publishers share the rights to the same song, one publisher may hold out for more money after the others have agreed to grant you the license. You may therefore want to obtain outside help within the music industry to handle these negotiations (see below), or rely on the game publisher to handle acquisition of music rights for your game. Record labels may be able to assist you with the negotiation with the publisher if the publisher is the sister company of the record label and the label has a strong interest in putting its music in your game.

Moral Rights

In addition to the copyrights discussed above, many countries recognise the concept of an author's moral rights [3]. Moral rights protect an author's interest and reputation in his or her works. These rights exist outside of copyright, and therefore, if you are licensing music from a copyright owner that did not get a waiver of the author's moral rights, you may still have to get permission from that author. Therefore, whether you are licensing music or commissioning someone to compose and record music for you, you want to be sure that the author has waived his or her moral rights pertaining to such particular song or recording. Moral rights are not part of US copyright law.

A Quick Word on Sampling

As anyone who has listened to hip-hop knows, "sampling" is the digital (or in some cases analog) copying of a small portion of a sound recording. Although the amount sampled from a complete sound recording may be very small (even just a few bars), that sample requires licenses for both the sound recording and the musical composition. There is a myth that using a very small portion of a copyrighted work is not an infringement. To an extent, this is true, however, the use must be so trivial or *de minimis*, that it has no effect on the copyright owner's interests. You can assume that if the sample is at all recognisable or familiar sounding to the listener, it is not *de minimis*. It is best to assume that a sample is not *de minimis*, and get a license for the sound recording and the musical composition regardless of how small it is. The price of obtaining a "sample license" (as it is called in the music business) will be much less than the cost of defending an infringement suit.

In some cases it is a subjective call as to whether music that sounds similar or reminiscent of a pre-existing theme song is infringing on that pre-existing copyright. If you are not sure, you should raise this as a possible issue so that your counsel or the game publisher's legal department can provide legal advice.

Music Supervisors

By now you are probably aware of the difficulties in obtaining rights to pre-recorded music. Not only is it oftentimes difficult to track down the rights holders for musical works, but due to the nature of the music industry, many people will be hesitant to work with you if you are an "outsider." Fortunately, there are people who have devoted their careers to selecting and obtaining rights to pre-recorded music for other works of entertainment. They are called music supervisors. Music supervisors mainly offer their services for films and television, but as games become more complex and music driven (*Grand Theft Auto: Vice City* is a superb example) music supervisors are delving into interactive entertainment. Although a music supervisor will add some cost to your development budget, they have long-standing connections with record labels and music publishers, allowing them to negotiate rates that someone without their relationships would not be able to obtain. Furthermore, the music supervisors manage all of the assorted paperwork up to negotiating the definitive synchronisation and master use licenses, at which point attorneys draft the appropriate agreements. While many major film and television studios have their own music supervision departments, there are many independent music supervisors who are available for games. They are listed in a publication called *Music Business Registry*, which may be ordered through www.musicregistry.com.

Similarly, many game publishers are turning to pre-existing popular music as an alternative for creating the game soundtrack. In this case they may handle all of the licensing details for you, and just provide the songs that they have licensed. In order to use this music for the game however, you would typically need to modify the music to create loops or extend it to fit game sequences. In this case you will need to confirm the extent to which you can modify the licensed work. In some cases you will not be able to modify it at all, in other cases you will be able to modify it as needed to shorten or extend it, create instrumental versions of it, or use only portions of it.

Sound Effects

Similar issues need to be considered when using sound effects or voice overs. Certain sound effects, like the ubiquitous Wilhelm Scream, have their copyrights expired, but other sound effects need to be licensed from libraries or created specifically for the game.

Voiceovers have the additional issue of conformance to Screen Actors Guild regulations, which require that reusing a voice line from a TV show or another game may require the actor to be paid again for that new use, even if it is just copied and they never set foot in a recording studio for your game.

Conclusion

For as much depth and emotional intensity that audio can add to your game, it can add just as much headache to your development process. Therefore, the easiest way to handle your musical needs is to hire someone to compose and record the music for you. If using pre-recorded music is a necessity, you should seek the services of a qualified music supervisor or have the game publisher handle this directly.

[1] Whether a music publisher owns the musical composition entirely, owns a percentage of the musical composition or merely manages the licensing of the musical composition depends upon the type of agreement between the music publisher and the songwriter.

[2] This chapter contemplates "works made-for-hire" under United States copyright law. Different countries have different requirements for ownership of an employee's copyrights or copyrights for collective or audiovisual works. You should therefore consult an intellectual property attorney in your jurisdiction to determine your country's copyright law requirements for hiring someone to compose and record music for you.

[3] Recognition of moral rights varies from country to country. While some countries recognise all moral rights, other countries only recognise some of them. The United States only recognises the "attribution" and "integrity" moral rights in a very limited aspect as they are applied to visual works of art. See generally, Melville B. Nimmer & David Nimmer, Nimmer on Copyright 8D.01, 8D.02 (2002).

13. IP in Graphic Art

Perhaps the most common area of Intellectual Property Rights that a game team will encounter during development is the area of graphics and art assets. There are a few trends which impact this;

- The trend towards realistic setting for some games (city streets, familiar real-world settings), and,
- The scope of production involved in today's games, making creating all assets from scratch less and less practical.

Using Images or Photographs

Taking photographs of;

- Buildings (in some cases), or,
- Works of art, or other copyrighted items, or,
- People, or,
- On private property

Require permission before these images can be used. This is required explicitly in the US, however this practice should be observed elsewhere too.

A texture artist has two choices when creating a texture – hand paint an entirely new texture or start with another image or photograph as source. Although another image may be used as the starting point, frequently there are many modifications made to the image so that it might be largely unrecognisable once completed and in the game.

One approach that an artist might use is to find images or photographs on the internet. The theory being that it is either a generic object (trees, rocks, clouds) or will be changed so much that it will not resemble the original. In actuality this does violate the copyright of the original image. Similar to the issue of music sampling, it doesn't matter what portion of the image is copied, it is still technically required to get permission.

It's probably obvious that if one were to make a collage using found images, this would infringe on copyrights of those images unless permission were granted. It may not be as obvious that even if several passes of digital manipulation is done on the image in Photoshop™ for instance, the copyright is still in effect.

Images found on the internet have a copyright associated with them even if they are not marked as such, since copyright protection is afforded simply by the creation of such image.

Any artist who wants to use this type of source material needs to inform their lead or project manager so that a business decision can be made as to how to approach the situation. In some cases it may be more appropriate to take new photographs specifically for the project, to avoid any infringement. This is particularly important for a commercial game.

A similar situation may arise when a team does multiple projects, and wants to reuse art assets between the projects. For instance both may need a rock texture. In this case the ownership of these assets needs to be determined before they are reused. The art assets from one game may be owned by the publisher, or they may be jointly owned. The ownership may include some restriction on how they are used (for instance only for sequels or derivative products).

In general, this means that art teams should both create libraries of available assets that the developer owns, and also clearly record the source of each image used or in the library. If a start-up team is doing a non-commercial project, or finds that it is too difficult to obtain either original source materials or permissions, then they need to be mindful of the risk that they have opened themselves to.

Copying Objects: Real-World Locations

One growing trend in particular genres of games is to use real-world locations or objects in game environments.

A simple example of this is using a billboard sign or everyday object in a scene. If the billboard being copied represents someone else's trademark, then you definitely need their permission, as well as likely an image from them with that meets their official specs on how the trademark should appear. In some cases this could be considered advertising for them, and a fee may be collected. However be mindful that an advertiser will also likely want to determine how their image is used in the game, how prominent it is, and how it appears compared to other advertisers.

If the object being created is an everyday object, like a table or chair, it is best to not copy directly from an existing object. For example you may choose to use a desk lamp in your game, however you could have an issue if it looked too much like the Pixar lamp or even a commercially available lamp. In the latter case, you could get permission, much like a product placement in a movie.

Even natural objects can encounter trademark issues. For instance the Lone Cypress near Monterey is a famous example of a tree that has been trademarked by a company, such that artists may not use representations of it (either photographs or art). See <http://www.midreal.com/Pages/Articlecoastweekly.html> for some background.

Buildings can also be the subject of copyright. The Eiffel Tower is a famous example, often encountered by developers who are using Paris as a location. According to the official site <http://www.tour-eiffel.fr/teiffel/uk/pratique/faq/> it is stated that publishing a photograph of the tower at night is subject to copyright law and entails fees. Similar restrictions pertain to using the Tower as an object in games.

In 1950, Madison Square Garden won a major court case giving them and other property owners' exclusive rights to images of their property.

If you intend on basing a game in a particular location, a good rule of thumb is to contact the local authority requesting any information on permission required for using cityscapes or particular characteristic buildings. If you wish to use a particular building, contact the owner of the building, if applicable, and obtain permission to use images of the building explicitly.

Copying Objects: Real People

Use of real-life people as images in games, also requires permission to be granted. A recent example is the case of an EA football game that had to be removed from sale because a player depicted in it had not given his permission for his image to be used. EA had gotten permission from some of the leagues in question, but it turned out this player was not a member of either league. More background can be found here;

http://www.out-law.com/php/page.php?page_id=footballgamebanned1051726409

Additional Issues

There is a list that itemises buildings and other sights that are known to have issues with reproducing their images;

<http://www.stockindustry.org/resources/specialReleases.html>

They also have a handy list of general guidelines;

<http://www.stockindustry.org/resources/commandments.html>

14. IP Agreements Independent Developers Sign

Overview

Independent game developers create games from code, art, sound, and imagination. They work in teams and use various tools to accomplish that task, therefore the developer as a legal entity enters into numerous business agreements with employees, suppliers, contractors, investors, and publishers over the course of this life cycle.

Many of these agreements relate to or affect Intellectual Property rights. These agreements will help the developer acquire ownership of the game assets, license the tools and technology necessary to make the game, acquire licensed IP to make the game and convey ownership of the game, or license the game to the publisher who takes it to market.

At the most basic level, Intellectual Property Agreements are legal contracts between a party "A" with specific Intellectual Property Rights, and a party "B" who does not have those specific rights, in which party "A" establishes conditions under which party "B" can use the associated Intellectual Property. There are many possible forms of Intellectual Property Agreement, but in practice the following details are typically determined:

- What permissions does party "B" acquire?
- What rights does party "A" reserve?
- What does "A" get in return?
- Is ownership of anything transferred?
- Under what conditions is the agreement rescinded?
- What happens when the terms of the agreement are violated?
- What laws apply to the agreement?

These themes differ little from those of any legal contract. In many cases both parties have Intellectual Property Rights and the agreement determines who can legally use and own them. In addition, it is common for Intellectual Property Agreements to be embedded in, or otherwise determined in, other contracts.

IPR Agreements in the Game Development Lifecycle

A game development business typically follows a four-stage lifecycle. Intellectual Property Rights may play an important role in each stage.

- **Seed / Startup Stage.** In this stage the business develops from an idea to a legal entity with products in development. The business is typically funded using the team's own time and capital, grant funds, or advances from customers. The business is focused on determining its legal structure, matching its skill set to market opportunities, and finding a market niche.

Developers often create a lot of intellectual property during the Seed / Startup stage, as they create the innovative game assets, system architectures, engines, characters, and game worlds that will establish their niche. Patents, trademarks, and copyright will establish that the developer

created these intellectual properties. IPR agreements will determine whether the developer, or someone else, has the legal right to make decisions about them.

Developers often need rights to 3rd party intellectual property during this stage, as the business does not yet have a stockpile of re-useable assets, brands, and development tools. IPR agreements give the developer the legal right to use modeling and animation tools, to develop for "closed" hardware platforms, incorporate 3rd party music and images, and build on 3rd party graphics, sound, and user interface engines. These same agreements may prevent the developer from disclosing 3rd party information to others.

The business signs its first publishing deal in this stage, and the deal nearly always involves negotiations over Intellectual Property Rights.

Sadly, most businesses fail during this stage. Intellectual Property Rights are assets of the business, and IPR agreements, as well as applicable business law, will determine who owns these assets if the business fails (see Decline / Exit Stage, below).

- **Growth / Expansion Stage.** In this stage, the business is profitable with one or more published titles. The business is healthy enough to seek funding from banks and investors, or to fund itself with profits. The business typically hires more employees, and tackles more ambitious game projects. Since the developer's niche has proven profitable, other developers target it, and competition mounts.

During Growth / Expansion, the developer will formalise and revise its business practices. Often this is an opportunity to revise and clarify Intellectual Property Rights agreements with existing employees, and among partners.

In this stage, other developers may try to "clone" the developer's games and undersell it, or to introduce incremental innovations to the developer's basic game design, in order to make a quick profit. The developer's Intellectual Property Rights allow it to exercise control over the competition.

The developer can generate additional profits in this stage by licensing their technology or game design to another developer, if they still have the Intellectual Property Rights (e.g. haven't assigned them to a publisher). In this case, they'll want agreements to establish exactly what can and cannot be done with their IP.

A developer's Intellectual Property Rights might also be used as collateral for loans, or to reassure prospective investors that the company has a protected business model.

- **Decline / Exit Stage.** Developers go out of business - it's natural, and no cause for shame. During the Decline / Exit stage, the developer is no longer able to compete effectively, and consequently is no longer profitable. The business is funded by consuming its own assets, and those of the owners. Employees leave the business, whether to seek greener pastures or due to downsizing. The developer places a fair dollar value on the business, and seeks to maximise that value in order to cash out.

During this stage, the developer's Intellectual Property Rights become coveted spoils. If the developer hasn't carefully planned an exit strategy including Intellectual Property agreements, the developer's IP may be hopelessly entangled in a briar of contracts with the net effect that nobody can use the IP.

The more likely case is that the developer's Intellectual Property Rights - whether brands, technologies, or copyrights - will become key assets of the business, critical to achieving a high valuation.

The specific IPR agreements that independent game developers sign during each stage of the business life cycle depend on internal factors such as how the business is structured, and also on external factors such as the outcome of negotiations with publishers, technology partners, contractors, and other 3rd parties.

IPR Agreements in the Game Development Lifecycle

A game develops in stages. The earliest stages of game development, pre-production, include design, research, prototyping, proposal-writing, and tool acquisition. The middle, or production, stages involve asset development, feature implementation, and integration. The final post-production stages require testing, balancing, final modifications, and all of the activities that get a game into the distribution channel: package design, technical and user documentation, release coordination, replication, and shipping.

Throughout this lifecycle, the development team acquires and creates intellectual property.

IP Contract Types

These different types of IP agreements used in this process fall into these basic classes.

- Content Acquisition and Retention Agreements: the IP agreements used in conjunction with the assets used by or created by the developer
- Proprietary Platform Agreements: the IP agreements which allow the developer to develop games on proprietary platforms (such as most console game platforms)
- Third Party Agreements: the IP agreements involved in conjunction with the software tools and technology used to facilitate the creation of the game assets.
- Development, Publishing, and Distribution Agreements: the IP agreements with the publisher or distributor through which the developer "sells" the finished product.
- Entertainment Property Agreements: the IP agreements involving the licensing or ownership of the IP upon which the game is based such as a film or novel or an original concept.

Types of legal contracts which independent developers may use that often include the above IP agreements include:

- Employment contracts
- NDAs with console manufacturers, publishers, subcontractors
- Work for hire contracts (by developer with subcontractor, or publisher with developer)
- Licenses for using someone else's IP: content, tools, tech, other IP
- Licenses that authorise a developer to develop for a platform

Content Acquisition and Retention Agreements

The initial set of IP agreements any independent developer needs to consider are those between the team members or subcontractors and the developer itself. These sometimes-overlooked initial agreements convey the IP rights of those contributing their work to the game to the developer. Under traditional principles of intellectual property law, the creator of a "work" owns copyrights associated with that work. So, for example, an artist owns the image he creates. If that image is a part of the game, the artist still owns it unless it was done while being paid as an employee or under a work for hire contract. In either case it is then considered "work for hire" and is owned by the employer instead.

The nomenclature "work for hire" refers to the principles through which IP rights transfer within a corporate enterprise or between a purchaser and contractor. The US Copyright Act defines "work made for hire" as "(1) a work prepared by an employee within the scope of his or her employment; or (2) a work specially ordered or commissioned for use as a . . . part of an audiovisual work . . . if the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire." Video games are deemed audiovisual works for purposes of the Act. Essentially, unless an employee's contribution to a game is within the scope of employment, or an independent contractor such as a music or sound provider is bound by a written agreement, copyright ownership remains with the employee or contractor. This is true even if the copyright material originates from the idea of, and is paid for by, the developer. To avoid any possible loss of IP rights to copyrighted material, and at the insistence of publishers, employees and contractors are required to sign contracts that acknowledge the work is made for hire and provide for the explicit and absolute transfer of all IP rights in the video game to the developer at the outset of the engagement of the employee or contractor. Failure to properly account for the transfer of all copyright interests can have potentially devastating consequences for a developer.

One common pitfall is the case where at the early stage of the project the team members are not yet employees, they are merely contributing their work to the project in hopes that funding will be obtained to make the game. So, the first IP agreement most independent developers should sign is one with the contributors conveying all right title and interest in the contributed "works" to the developer. Otherwise the developer may not own some of the assets, a serious potential problem later on.

Other licenses that fall into this category would be licenses to pre-existing libraries or collections of assets (sound effects, images, etc). Similarly, utilising content from a prior game may require an agreement.

Proprietary Platform Agreements

Most console manufacturers require the developer to sign a license in order to have access to the proprietary information (API, etc) needed to develop games on that platform. These licenses identify proprietary information (trade secrets) and control the dissemination of such information. They also often protect related hardware and software, for instance a development

kit may continue to be owned by the manufacturer and legally only temporarily leased to the developer.

Third Party IP Agreements

Many of the software tools used to create the game assets will be licensed from third party software companies. Some, like the license to use the operating systems in the workstations, are pretty straightforward and simple. Others, such as the high-end seat licenses for the graphics and animation tools are more complex. Finally, the ever-increasing reliance on the licensing of third party game engines creates an even more complex set of IP licenses to deal with. For instance, if the developer creates its own engine, then it may end up licensing its engine to other developers for use in their games through another IP agreement.

Other licenses with third parties may relate to IP licenses of non-game content that will form the basis for the back-story to the game, the game characters and environment, the music and script. Often these licenses are acquired by the publisher as part of the publishing contract with the licensee. However, at times a developer may directly enter into an agreement to an IP license relating to a game, especially if the game is self-funded by the developer prior to placing it with a publisher. A strong third party IP can drive game sales and such an association can be a big help in getting the publisher to fund a game. Often licenses to third party IP are based on a share of revenue or royalties, with some minimum guaranteed level of payment. These agreements are pretty much one off contracts that are negotiated and custom drafted for each specific deal.

Third party content contributors will have IP agreements associated with them as well. It is common for developers to use an independent third party source to supply some of the game assets. The most common third party contributors involve sound design and music, although game assets like movies and motion capture animations may also be contracted to third parties. Depending on the type of contribution, these assets are either accompanied by a "work for hire" type of agreement or secured with a license agreement.

Publisher Related IP Agreements

Of course, the main IP agreement that an Independent Developer signs is that with its publisher. But the developer/publisher relationship actually has several contracts that comprise IP agreements associated with it. The first in the process is normally a mutual Non-Disclosure Agreement (NDA) that should be executed by both the developer and the publisher prior to the developer presenting its project to the publisher for consideration. This agreement determines the scope of the proprietary information to be exchanged and the responsibilities of each party with respect to not disclosing that proprietary information. It is important to have legal review of any NDA which you sign, to be sure of exactly what rights you are conveying and what you can expect from the other party.

If the publisher is willing to sign the game and the developer and publisher come to an agreement as to the basic terms of their relationship, these terms are set out in a subsequent contract, typically a development contract or publishing contract. –The contract may first be outlined in a Letter of Intent or Heads of Agreement (LOI), which confirms the core agreement terms prior to the entry into the final Long Form Agreement without getting too bogged down in

the minutia that often fills the more formal final agreement. The scope of the LOI varies considerably, and it is important to have legal representation when completing one.

The IGDA Business and Legal Committee (<http://www.igda.org/biz/>) has released and is in the process of updating a White Paper detailing developer publisher agreements (the Contract Walk-Through). Those with interest in these agreements can get a great deal of information from that White Paper.

Miscellaneous IP Agreements

The final formal developer/publisher agreement is, at its core, all about IP. The ownership of IP created for the game might be retained by the developer and licensed to the publisher, or a portion of it may be owned by the publisher. Some IP might revert back to the developer if the project is terminated, and there are often specifics related to the use of the IP for sequels or derivative works that the publisher or developer may do. Or, the entertainment property (or brand) may be a licensed property owned by a third party and the publisher agreement will deal with the remaining IP created and associated with the game IP.

If the developer retains ownership of the entertainment IP in the game, and the game is a smash hit, there may even be post release IP agreements such as movie, comic or even "action figure" licensing agreements. And then there are the expansion packs and sequels. Now that's something we can all hope for!

15. Licenses and other ways to convey use of IP

Overview

What is a license?

Once IP is created or acquired, the owner will often need to convey certain rights of the IP to third parties. This will further their business operations and help the company commercially exploit the IP assets. The two methods for doing so are to transfer the rights through an assignment or to license the rights. A complete transfer or assignment of the IP and all of its exclusive rights usually requires a certificate to be filed with that country's registration office. However, some countries, notably those with civil law systems, define rights that cannot be divested from the author, meaning that all transfers are essentially a license. Anything less than a full assignment is a license, which is essentially a temporary transfer of particular rights without transferring any ownership of those rights.

What does a license convey?

Licenses may be for any of the rights associated with the major forms of IP: patents, trademarks and service marks, copyrights and trade secrets. The bulk of IP assets that are licensed in the entertainment software industry consist of trademarks, copyrights and trade secrets (and in some cases publicity). Each of these forms has its own individual exclusive rights, for instance:

- For trademarks it is the exclusive right to display certain logos or phrases in association with the sale of a product.
- For copyrights, the most prolific form of IP in the world, the exclusive rights generally consist of the right to make copies or publish, to distribute, to make derivative works, to display, etc.

Each one of these particular interests can be the subject of an IP license and be transferred together or individually.

If the subject matter of an agreement is primarily the transfer of an IP right or interest, the document is best referred to as a license. However, IP rights and interests are often licensed as part of a larger contract or agreement, and may only constitute a provision of the overall agreement. A separate license agreement allows the licensing party to fully establish the boundaries for all contingent uses of the IP, rather than relegating the IP to secondary subject matter of a larger contract.

Some common examples of licenses are original equipment manufacturer (OEM) licenses, where a product may be included in the sale of computer hardware. Other examples might be a distribution or publishing agreement, a right to use trade secrets, or to create a derivative work of a previous creation. Game development studios might often find that they have to license sounds, film, audio-visual or music rights from owners in ancillary industries such as the record industry, sports industry or Hollywood. Thus, they will find that they are both purveyors and consumers of IP licenses.

Considerations when granting or accepting a license

Considerations when granting or accepting a license include:

- The scope of the grant,
- Restrictions on the grant,
- Exclusivity,
- Royalty rates (often the sine quo non of the license),
- Term and
- Some form of accounting to track compensation or renewals of the grant.

While not a comprehensive list of everything that should be set by the license, focusing on these issues will help to ensure the integrity of the IP and to protect the rights of the original owner as well as the licensee.

Types of Licenses

There are many ways to convey the use of intellectual property, it is very important to understand however, that the devil is in the detail and that each legal jurisdiction may practice a unique approach to the licensing and transfer of intellectual property.

Commercial licenses

License agreements are the legal instruments that convey intellectual property rights between their owner and the entity that wants to gain access to them. Unfortunately, for commercial license agreements there is no such thing as a "standard license agreement" and understanding the components and intentions of these documents is critical. Developers that fail to take the time to evaluate and understand these documents and their scope might find themselves in court, out of business or both. License agreements are used to license rights to properties such as patents, copyrighted works, know-how, trademarks, personality rights etc. Although many legal issues need to be addressed in the agreement, the business issues should always drive the license process. Once all the business terms have been agreed upon, legal counsel should be used to draft (or review) the license agreement. Most license agreements are structured similarly. A typical agreement contains the following sections:

- 1) Cover page and Table of contents
- 2) Recitals - (background on licensor and licensee)
- 3) Definition of the terms used in the agreement - (clarity is king)
- 4) Undertakings and Representations of the Parties – (based upon the agreement)
- 5) License Grant and Restrictions - (exclusive, revocable, worldwide?)
- 6) Payments - (schedule of payments, discounts)
- 7) Other Obligations - (support, training and updates, audit and reporting)
- 8) Termination - (Perpetual or defined term, termination for breach)
- 9) Liability and Authority - (Warranties, Limitation on liability)
- 10) Miscellaneous Provisions - (Jurisdiction, most favoured nation, severability)

In addition to the key sections in a license agreement that define what property is licensed at what cost and for what period, it is critical to pay utmost attention to details such as to what happens if the licensed property infringes any third-party rights, the licensor goes out of business or the rights granted are limited to a specific geographical region only.

While the commercial licenses for most software are designed to prevent users from sharing or changing it, there are also licenses that intend to accomplish quite the opposite. By contrast, Open Source licenses are basically "copying licenses" intended to allow licensors to share and change free software.

Open Source Licenses

The concept of "free software" is probably as old as software itself. When Universities first gained access to computers, software was created and freely passed around. Programmers were paid for programming and not for their software. Only after software was established in the business world, authors began to restrict rights to their software and charged fees. With the formation of the Free Software Foundation and its GNU project in 1984 - the idea of free software was moved back into the limelight. The Open Source Definition started life as policy document, somewhat of a bill of rights for computer users. Open Source does not just mean access to source code which is necessary for the repair or modification of a program, it also defines that an open-source program has to comply with other terms including the right to make improvements or to create derivatives. Licenses including the GNU General Public License, BSD or the MPL (to only name a few) are considered conformant to the Open Source definition. To be Open Source the distribution terms of open source software must comply with all of the following criteria:

- 1) Free Redistribution of the software without requirement to pay fees;
- 2) The program must include source code;
- 3) Derived works and modifications must be allowed;
- 4) Integrity of the Authors Source Code to allow identification of modifications;
- 5) No discrimination against persons or groups;
- 6) No discrimination against field of endeavour;
- 7) Distribution of License with all terms without need for an additional license;
- 8) License must not be specific to a product or particular product bundle;
- 9) The license must not restrict other software that is bundled;
- 10) The license must be technology neutral;

Freeware & Shareware

Freeware and Shareware are another form of commercially licensed software that is distributed under the terms of a license agreement and even in the absence thereof, is still protected by copyright law. It is a common misconception that Freeware or Shareware is software that is in the public domain. Freeware or shareware is usually covered by a license that allows for distribution without (advance) payment, however the author maintains ownership of their copyright rights. In contrast, a program in public domain means that the author has deliberately surrendered its copyright rights.

Purchase, assignment

In contrast to licensing, the sale or the assignment of an intellectual property asset (typically) requires the holder of such assets to completely surrender all rights to the acquiring entity (even though certain jurisdictions such as Canada allow partial assignments of e.g. copyrights). The intellectual property assets sold will become subject of a bill of sale. However, in light of the fact that most transactions involving intellectual property require recording of the new owner in the respective jurisdictions, extensive "acquisition contracts" are established. In an intellectual property asset sale, a seller will typically be requested to ensure that:

- Intangible assets to be sold are accurately defined and listed
- It is the rightful owner of such assets
- No liens and encumbrances exist with respect to such assets
- The intellectual property asset does not infringe the any third party rights
- It provides indemnification in favour of the buyer in connection with the assets
- It assists the buyer in performing due diligence
- It discloses existing licensees, settlement agreements, ongoing litigation etc.

16. Methods of Documenting and Labeling Your Work

In an industry that is all about making impossible worlds come to life, bookkeeping tasks may seem dull by comparison. Nonetheless, these tasks are as much a part of a programmer's, artist's, or manager's responsibility as any debugging session, concept sketch, or milestone.

Many intellectual property rights in game development either protect, or have a scope defined by, documentation. Penalties and other recourse for infringing on these rights often increase when the holder of the IP rights can prove intentional infringement. Documentation and labels play critical roles in protecting:

- Individual game components (such as graphics, sounds, storylines, and source code) and assets from which they are derived;
- Tools, technology and processes used to create the game (such as might support patent applications); and
- Finished products (such as the game itself, as sold to consumers).

The following issues should be addressed, implemented and included when documenting and labeling content regardless of level of integration and usage.

- Content authorship should be attributed to the author, both on a per-object basis and in the final product ie credit.
- Proper credit listing of author should be listed in all finalised product and merchandising containing the content. This must be negotiated between content provider/author (object or final project) and content consumer (developer, publisher, distributor, etc.).
- Ownership must be determined, negotiated and fully and completely documented. In other words was the content created as a work for hire, a license, a buyout purchase, etc. This is critical for copyright filing, pricing, licensing, repurposing, usage, distribution, and other business purposes.

Reasons to Properly Document and Label Your Work

Properly documenting and labeling your work is important for several reasons.

One is the desire for an author of creative content to be recognised for the work he or she produces. Even content created as work-for-hire remains a creative work attributable to its author. This attribution, whether acknowledged in the game credits or merely recorded in a "source file" creates a lasting record of the author's contribution to the work.

Another set of reasons relate to establishing intellectual property rights. By "staking" authorship of the content you create, you are attesting to the work's originality and source authorship. Should an intellectual rights issue arise from the code, music, art or sound effect you provided,

the content consumer has proof that you, the content author, produced the content in good faith as original work for the stated purpose.

Of course, an unethical person (for example, a plagiarist or forger) might deliberately mislabel work. When such cases come before a court, willful misrepresentation often carries harsher penalties than accidental misrepresentation. The actual penalties vary from case to case, jurisdiction to jurisdiction, and according to whether copyright, trademark, or patent has been infringed.

For any individual or company searching for venture capital, distribution, publishing or other alliances, the ownership, documentation, and usage rights of IP are critical factors and sources of potential exposure and/or lawsuits. Without proper documentation of your rights, venture capitalists, private investors, distributors, publishers, and alliance partners may hesitate to enter into a business relationship. A policy of accurate documentation and labeling contributes not only to your sense of ownership, but also to your security and marketability.

Documenting and Labeling Game Components

The work of content authors and programmers is part of a game, not the whole. As an individual content contributor providing content to a collective work (the game), you are afforded certain legal protections under Copyright Law, as well as professional and negotiated courtesies including credit listing of your work in the final product, and credit listing in all derivative products or versions utilising your work. Even when the authors are acknowledged in the game credits, these credits seldom provide details of who created what.

Labelling Game Components with Metadata

The big question is how we ensure our work is attributed to the author properly at the object or component level. Surprisingly, documentation at the object level is often simple to implement. Many "off the shelf" content authoring and editing tools (Pro Tools™, SoftImage™, 3D Studio Max™, game engines, and others) allow the author to include "metadata" at the object level. Tools with metadata (or comment) support give you the ability to "imprint" your attribution information into the actual object level content as text. This text is not displayed when the asset is rendered, but typically shows up in a Properties or About box when the asset is loaded into editing software.

Generally, metadata is a definition or description of data. Tags are provided for each type of data, so that a search engine can easily search by "Title", "Author", or other criteria. The metadata application of interest to game artists and programmers is the ability of metadata to annotate the object level content.

EXAMPLE

Title: Music Score Main Title
Author: David Frederick
Engineer: Crazy Joe
Project: Action Adventure Game ^XYZ Game Company

File Type: .wav
File Properties: 16 bit 44.1 kHz Stereo
Copyright: © 2003 DFMG
Comments: Limited Use in PC based version ONLY.
URL: www.dfmediagroup.com

In many cases, metadata travels with the content throughout its life unless explicitly removed. Metadata doesn't prevent plagiarism or unauthorised copying, but it does identify your work and its authorship to honest professionals.

Each content authoring tool has its own specific supported metadata attributes. The bare minimum is a free-form comment field, into which you can enter arbitrary information. The next level of support generally includes fields for name/author, comments, and file type. What is important to understand is that this is your chance to apply your signature/label digitally to each individual content object. Content aggregation tools may also provide metadata support, in which case entire levels or packages can be labeled.

In many cases, object level content is created by one or more authors, and then may be modified by several others before the game is completed. For instance two artists may be involved in creating the 3D model and the textures, an additional artist may add multi-texturing effects, and another artist may create LODs of the object. If metadata is used to determine authorship it should include all those who have contributed original work to the object.

Copyright and Game Components

Whether or not your authoring tools support metadata, it's often in your interest or that of your consumer to label assets covered by copyright law with a copyright notice.

Copyright protection is automatic; there is no legal requirement to label the work. The copyright applies as of the date of publication (general distribution) of the work, and lasts for decades - generally well beyond the commercial lifetime of most works.

Your contract or employment agreement may dictate who owns copyright to the assets you create. The copyright notice should accurately reflect ownership. It is strongly advised to have all copyright or licensing agreements attached to the content creation agreement to ensure full compliance and ease of access for reference and filing.

Whether or not you have registered your copyright with the government, the same form is used for the copyright notice. Here's how it looks:

Copyright © 2003 The Software Geniuses, Inc. All Rights Reserved

Do not use (C) instead of the copyright symbol © - it doesn't always have the same legal standing. Do not abbreviate the word "Copyright". You must use either the entire word "Copyright" or the symbol © in the notice. (The US Copyright Act Section 401(b) allows the abbreviation "Copr." to be used.)

If the work is unpublished, use:

Copyright C 2003 Joe Coder (Work in Progress)

Your authoring tools may provide a metadata field for copyright information; if so, that is where to put the copyright notice. Otherwise, put the notice in the comment field, or less preferably in the author field. If your tools or file format don't support metadata, create a text file listing the assets covered by copyright, along with a copyright notice.

Documenting the Creative Process

Some people are so creative, and work in such mentally stimulating environments, that they solve a challenging problem every hour. Other people have sudden flashes of insight while washing dishes or chasing their dog. Still others work diligently and systematically to discover a formula, perfect process, or arrive at a particularly pleasing arrangement of words, sound, cloth, paint, or movement.

Ah, creativity!

It's one thing to solve a problem, and another to make money from your solution. As others find out about your solution, they'll assess (like pirates on the high seas) two things: the value of the treasure, and how well you have guarded it. The results of this assessment will determine their actions toward you. Their actions will range from unapologetic theft to offers of lucrative contracts and licensing arrangements.

Both facts and appearances matter. Both of these have their roots in proper labeling and documentation of your work.

In all matters related to intellectual property, whether in the brainstorming phase or final production, it's worth retaining dated records of your activities, including personal notes. Documentation "proves" that an idea is yours; that you thought of something before anyone else; that you were the first to invest time and money to create a product based on your idea; that you conceived and developed the idea versus copied it from somewhere else.

Labeling puts profiteers on notice that you've established legal rights over your work: the treasure is guarded. Effective creative labeling can also introduce fear, uncertainty and doubt into your enemy's assessment: a mysterious defence that intimidates.

How to Prove An Idea is Yours

Ideas are intangible, and move quickly from mind to mind once communicated. Nobody can prove beyond doubt that they were the first to conceive a specific idea.

Fortunately, with a little work anyone can legally establish a date certain, on or before which they most certainly conceived the idea. When two parties fall into legal dispute over the use of that idea, the courts often favour the party establishing the earliest date of conception.

Here are three tips for establishing your idea's date of conception.

1. *Keep a Log Book.* This should be a real, bound or continuous spiral book of ruled paper. It must not be an open spiral or 3-ring bound - you want anyone who sees it to accept that no pages have been added (e.g. back-dated) or removed. Do not use books with perforated pages. Do not use blank books; ruling or grid marks help to establish that you haven't added information later "between the lines." The ruling should be light blue, rather than red or black, and you should write or draw only in black or dark blue ink, to facilitate photocopying.

On the very first page, write a title such as "Development Log Book", your legal name, and the date that you began using the book; do not write any ideas on this page.

Each day that you have an idea, begin a new page of the book. Don't use leftover space on the previous page, and don't leave any blank pages! As you have ideas, write them in the book, describing them in some detail with words, sketches, or both. Write the date at the top of each page, and sign the bottom of each page. Try to use the same pen for all of the writing on each page. Don't leave any blank space on the page - if you have blank space on a page at the end of the day, lightly cross-hatch the space with your pen. Don't fill space with solid colour or dense crosshatch, or it will look like you're hiding something. Your goal is to create evidence that the cross-hatched area was never used, and never will be used.

It's OK to use more than one page to describe an idea, and it's OK to put more than one idea from the same day on the same page.

Since all of your great ideas are in this log book, keep it locked up. Just like you don't want your little brother reading your diary, you don't want the cleaning staff reading - or stealing - your log book. If you are traveling it is best to take notes in another book, and transfer to your log book on your return.

When your log book fills up, save it in a fire-proof safe deposit box. If you are working for a company, then the company should employ similar protection.

2. *Get a Witness.* Even if you don't keep a log book, you should write down your really good ideas in ink, then sign and date the description.

Next, find someone who's capable of understanding the idea. Often, co-workers are a good choice; often, competitors or people with whom you plan to sign contracts are not. Show your prospective witness the description you've written, and ask if he understands the idea. If he doesn't understand, find a different witness or rewrite the description - don't just answer questions verbally without updating the description.

Once the witness understands the idea, have her write "I understand this" and sign and date the document. You want two things to be clear: the witness admits to understanding the idea, and it is your idea, not the witness'.

3. *The Ten-Dollar Timestamp.* You can't always find a competent and trustworthy witness for your ideas. In these cases, you might be able to use your government's postal service as a witness. Write your idea down, either by hand on stationary, or using a computer-based word

processing or drawing package. Now, get hardcopy, or burn it to a CD. Find a suitable envelope: one that will protect the contents, that seals securely, and that cannot be opened without visibly damaging the envelope. Put your hardcopy in the envelope. Address the envelope to yourself.

Take the envelope to the post office, and send it via certified mail with a return receipt. (For those not in the U.S., this is a mail service that causes the post office to mark the package with the day it was sent, certify that the package was sent on that day, and also to inform the sender of the day on which the package was actually delivered, and who received the package). This service costs about ten dollars.

When the package arrives, do not open it. Ever. Save it in a fire-proof safe deposit box. The only time you will ever open this package is when you need to prove the date on which you conceived your idea, and then, only in the presence of a judge. The post office doesn't lie!

How to Prove It's Not Just An Idea

A German proverb says, "The proof of the pudding is in the eating." The proverb applies well to intellectual property: anyone can talk about their recipe for pudding (an idea), but you need to make the pudding to actually prove it works and tastes good.

Your intellectual property rights, whether copyright, trademark, or patent, are contingent on proving to the government that you have a basis for commerce (something that can be bought and sold), of your own creation (original, not stolen or copied verbatim from someone else). Documentation plays a crucial role in establishing these contingencies as facts.

Here are three techniques for creating the documentary evidence that proves your creation isn't just an idea.

1. *Build It.* Physical reality is pretty compelling evidence that you've taken your idea into the practical realm. Write the story. Draw the image. Compose, arrange, and perform the music. Code and test the algorithm. Build the machine. Construct the design.

When you're done, print hard copy, take pictures, burn it onto a CD-ROM, or store your creation in a safe place. Use either a live witness or the postal service to establish the date of construction.

If you use a live witness, make sure the witness sees your invention in action and understands what your invention does. If it's a painting, the witness must view it. If it's a book, she must read it. If it's music or performance, she must witness the performance. Write up a simple document stating that on this (specified) date, in this (specified) location, the undersigned witness saw a working demonstration of this (specified) invention created by this (specified) person; have the witness sign and date the document, and store it in a safe place.

2. *Keep A Log Book (Part II).* Your log book is not just for documenting ideas; it's also invaluable for documenting the process that transforms your idea into a working demonstration.

Make sketches in your log book. Write down approaches you tried that did and didn't work, and every improvement that you made to the idea as you developed it. When you encounter a really challenging problem, make a log entry describing the problem. Make another log entry describing the solution you find. Sign and date every page, using the same rules you used for documenting ideas.

Remember, you must never leave blank pages in your log book. If you're working on several ideas, their histories will be intertwined in the log book, showing the incremental progress on each, rather than arranged as one contiguous block of information per idea. Although this may seem disorganised, it's exactly what you want to happen. Here's how you'll use this information as evidence:

- If someone challenges your claim to have developed something, you can show the court the history of its development in addition to the original idea and the finished product. It's compelling evidence that you developed the solution through investment rather than by "a miracle" Or copying.
- If your idea is patentable, the development history in your log book will give you and your lawyers many ideas for so-called dependant claims - variations of the invention that, although optional or inferior to the final invention, you can protect under the same patent.

3. *The Detailed Design.* Some inventions are so grand in scale that the inventor can't muster the resources to actually build and test them.

Suppose you invent an Infinite Improbability Drive (if you don't know what that is, you must read *The Hitchhiker's Guide to the Galaxy* by Douglas Adams; do it - now). You're certain it will work, but can't build one because you don't have a bazillion dollars, hot tea, or access to a source of finite improbability. You can still, with a little work, "prove" that you really have invented it. Here's how.

First, draw up a detailed plan for building your invention. For music, this could be a complete musical score and arrangement. For a character, it could be a series of character study sketches. For a machine, it could be blueprints, component specifications, and operating procedures. Your goal is to describe what must be done so well, that someone of ordinary skill could do it.

To put it another way, your goal is to teach anyone who reads your plan how to build the invention. Don't leave anything out - no secrets, no deliberately misleading information. The only things you can leave out of your detailed plan are your ideas for improvements and optional features, and explanations of steps obvious to an ordinary artist, performer, builder, engineer, etc (whatever type of workman you need).

Within this plan you should call attention to anything and everything that distinguishes the resulting work from everything that has gone before it; the element or combination of elements that identify the work as uniquely your creation.

Once this detailed plan is created, use either a live witness or the postal service to legally establish the date. Print hardcopy of the plan, or burn it to a CD, and store it in a safe place forever.

Lawyers and the U.S. Patent Office call this kind of detailed plan constructive reduction to practice. It's often good enough to justify a patent, at which point you can find a wealthy investor to bankroll your development in return for a piece of the resulting commerce.

Labeling Finished Work

An intellectual property notice on your products lets everyone know they contain your intellectual property.

The notice is fair warning for honest businessmen (who might otherwise think the work can be copied or imitated freely). It deters dishonest businessmen (who might otherwise steal your idea without fear of legal reprisal). Both of these effects save you time and money, by reducing the number of intellectual property trespassers you have to take to court. They can also make you money, by helping to attract investors and by inducing honest businessmen to license your technology rather than designing around it or abandoning the market.

Here are the five most important kinds of labels for intellectual property, and how to use them. As with any legal issue, you should seek the advice of a competent attorney when selecting a labeling strategy.

The Copyright Notice

In the U.S. there is no legal requirement that you mark your works with a Copyright notice - copyright protection is automatic. The copyright applies as of the date of publication (general distribution) of the work, and lasts for decades - generally well beyond the commercial lifetime of most works. Whether or not you have registered your copyright with the government, the same form is used for the copyright notice.

Copyright © 2003 The Software Geniuses, Inc. All Rights Reserved

To repeat from the Copyright chapter, do not use (C) instead of the copyright symbol © - it doesn't always have the same legal standing. Do not abbreviate the word "Copyright". You must use either the entire word "Copyright" or the symbol © in the notice. However, the US Copyright Act Section 401(b) allows the abbreviation "Copr." to be used.

Put the copyright notice on your source code, your images, your musical arrangements, your detailed plan, and all over the product: the CD, the CD jacket, the splash screen, both sides of the box, the software license, and the documentation.

If the work was created over several years, or was revised in a later year, list all of the applicable years. For example,

Copyright © 1996, 2003 The Software Geniuses, Inc.

The copyright notice identifies the legal name(s) of the copyright holder(s). This may be individuals, a corporation, or a legal alias. For a business alias (doing-business-as):

Copyright © 2003 Joe Coder dba Morpheus

If the work is unpublished, use:

Copyright © 2003 Joe Coder (Work in Progress)

Pending Patent Notices

In the US, "patent pending" and "patent applied for" are terms that refer to an actual pending application in the US Patent and Trademark Office. The term "patent pending" may also refer to a type of application called a provisional application that has been filed with the USPTO. A typical notice:

Patent Pending

Use this intellectual property notice when you sell your product before any patents have issued, but use it with care: in some countries, you forfeit your rights to patents if you offer to sell the product to anyone before applying for your patents. Companies that misuse this notice are subject to sanctions under US law because misuse of the terms is viewed as an attempt to deceive the public by claiming an aura of IP protection that the item does not actually have.

Put this notice on the actual physical object that incorporates the invention. If the object is a software program, put the notice on the disk and on the splash screen.

Use an alternative form of the notice on packaging and within documentation, to point to the actual object incorporating the invention. For example:

The WOW! Engine is manufactured under pending U.S. patents.

This notice tells the reader that they won't be able to determine what aspects of the product you've patented, because patent applications (in the U.S.) are secret for 18 months after filing or until the patent issues. Maybe the patents you've filed for will issue, and maybe they won't. Either way, the fear, uncertainty, and doubt created by the label "patent pending" drives most imitators within the reach of the law crazy: it's a downside they can't assess.

Notices for Issued Patents

If your patents have issued, or if you have licensed patented technology for use in your product, use this notice followed by a list of applicable patent numbers.

Manufactured under one or more of the following U.S. patents:

Include design, method, and process patents. You don't have to identify the owners of the patents, just patent numbers. You can list the patents on a single line, or in multiple columns.

Physically locate this notice in the same places you'd otherwise use "Patent Pending"

Trademark and Service Mark Notices

The trademark is a specific symbol of your business and its reputation. It encourages the buyer to make assumptions about your product, based on your past performance. The trademark notice tells the world that the specific mark preceding it uniquely identifies your company and its products. The label for a trademark the symbol of your business, followed by (superscript):

TM

If the trademark has been registered with the government (in the US, with the US Patent and Trademark Office), use ®. Do not use (R) - it doesn't carry the same legal weight. For service marks (which identify a company's distinctive services rather than its tangible products), use (superscript) SM.

The mark is distinguished by its graphical elements, fonts, colours, arrangements, relative proportions, and spacing. The mark must be distinctive to be covered by law, and you must consistently reproduce the mark to exactly the same standards each time it is used. Never let a vendor of, for example, business cards, produce an approximation of your trademark. Always provide vendors with your own trademark artwork to use. Make sure that the artwork is a bitmap, rather than a meta-description of the mark in XML or HTML, since different software packages can render the mark-up differently. If the mark is expressed in encapsulated PostScript®, include any fonts used.

Always use your trademark in connection with a product name, and make sure that the product name looks different from the trademark. For example, in "XYZZY™ Password Generator" the trademark is XYZZY, and the product is a password generator. This helps prevent your trademark from becoming the "generic" term for all similar products - an event that would render the trademark legally useless.

Put the trademark and notice all over your product, along with the product name. Also place it on every ad, package, label, manual, and brochure.

Follow these policies when using your own trademarks and those of others in documentation:

1. When making reference to a trademark in documentation, use the ® or ™ symbol the first time the mark is referenced; it's not necessary to repeat the symbol on every reference.
2. On every unique piece of documentation that uses trademarks, include a footnote or other credit along the lines of:

"XYZZY and PLUGH are trademarks, and Plover is a registered trademark, of The Software Geniuses, Inc. Other product and company names mentioned herein may be trademarks of their respective owners."

Software License Notices

Once you sell something, you have no legal control over its use or resale. For example, you can't prevent a user from selling your game to someone else (although you may be able to seek damages for unauthorised copying under copyright law). If you want to control resale, or any other use of your game, or limit your liability related to use of the game, you should license your game rather than selling it.

Your customer has the right to see the terms of your license up front, and to accept or decline the terms. If the terms are declined, you have the right to refuse to license the game. For mass market products however the rights holder generally has no direct contact with the end user. Consequently, a game that is licensed rather than sold should, prior to first use:

1. Present the user with a license agreement clearly indicating that the software is licensed, not sold, and defining the terms under which you are willing to license the software for use
2. Provide the user with the option of canceling the transaction (getting a refund and returning the product) if they are unwilling to accept the licensing terms
3. Require the user to make a conscious action (such as scrolling to the bottom of the agreement and clicking OK) in order to accept the license terms.

Sound familiar? In the past, so-called "shrink wrap" software licenses have been used to convey licensing terms to the user; advances in communication technology now allow the transaction to be conducted on-line, often during software installation or startup. Consult with a competent attorney before implementing any software licensing technique.

17. Insuring against Intellectual Property Risks

Overview

Have you ever considered how you would cover the costs of legal proceedings brought in relation to your or a third party's intellectual property (IP) or intellectual property rights (IPR)? IP litigation insurance covers legal expenses in the event of such legal proceedings. Specialist complementary IP insurance products are also available to cover different events involving IP.

IP litigation insurance covers reasonable expenses, fees and disbursements incurred by your approved legal representative(s) appointed to act in relation to your insurance claim, including legal expenses incurred in pre-court proceedings. This type of insurance may also cover any damages you are liable to pay as a result of IP litigation.

A wide range of standard and tailor made IP insurance products are available. However, at present the number of insurance companies offering each type of insurance is limited. Premiums for this coverage can be very high and the extent of coverage may be very limited. If you want this type of insurance, be sure it is budgeted when you bid on a project. Please note that normal commercial legal expenses insurance does not cover intellectual property related litigation. IP insurance can be obtained for claims relating to:

- Patents, petty patents, utility models, supplementary protection certificates,
- Registered trade marks, unregistered trade marks, passing off, brand names, devices, logos, get-up, domain names, unfair competition, injurious falsehood,
- Registered and unregistered designs
- Copyright works, semi-conductor topography rights, rights in relation to databases,
- Applications for a compulsory licence or licence of right,
- Trade secrets, confidential information, know how,
- Agreements relating to IP and IPR, including confidentiality and non-disclosure agreements, and licensing agreements,
- Technology transfers,
- Loss in revenue streams generated by your IP or IPR.

Types of IP Insurance

The following sections describe the main categories of coverage that can be obtained.

IP Enforcement

Covers legal expenses incurred when you pursue any legal proceedings or claim against a third party for infringement of your IPR, including legal costs for defending a counterclaim brought by the third party as an act of defence against your claim, for example, a counterclaim challenging the validity of the IPR in relation to which you brought your claim.

IP Defence

Covers legal expenses incurred when you defend any legal proceedings or claim brought against you by a third party for infringement of the third party's IPR, including legal costs for bringing a counterclaim as an act of defence against the third party's claim, for example, a counterclaim challenging the validity of the IPR in relation to which the third party brought the claim. May also cover damages if you are found to be infringing.

IP Protection

Covers legal expenses incurred when pursuing or defending any legal proceedings or claim, brought against you other than by way of a counterclaim, challenging your ownership or rights in your IPR, including challenges to the validity or scope of your IPR, your entitlement to your IPR, and applications for a compulsory license under your IPR.

IP after the Event

Intellectual property litigation insurance is not readily obtainable once a risk has a known "history", and there is no guarantee that insurance can be obtained after a problem has come to light. However, in some cases IP insurance may be offered following an "after the event" assessment of the circumstances.

IP Exploitation Agreement

Covers legal expenses incurred when pursuing or defending any legal proceedings or claim for breach of an agreement relating to the exploitation of IP or IPR, including licensing, confidentiality and distributor agreements, and warranty and indemnity clauses.

IP Asset protection

Covers against loss in revenue stream from your IP or IPR as a result of, for example, an unsuccessful defence of an infringement action preventing your marketing of a product, government action preventing exploitation of your IPR or adverse media. Cover includes reimbursement for R&D costs and loss of profits.

Applying for IP insurance

Insurance companies perform assessments, based on the information given in your insurance proposal form, prior to providing indicative premium quotes. Popular information requested by insurance companies relates to the nature of the IP, IPR or related aspects sought to be covered, the owner of the IP or IPR, the nature of any business activities relating to the IP or IPR, and any previous or potential disputes regarding the IP or IPR.

In addition to knowing what is to be covered by the IP insurance, the insurance company also needs to know what geographic area is to be covered by the insurance policy. Therefore, you need to consider in which territories IP insurance would be most beneficial.

Your IP agent/attorney should be able to advise you in relation to the IP insurance you are seeking, and assist you in completing requirements for an insurance proposal. An insurance company may want to discuss your IPR with your IP agent/attorney, as part of the assessment of your proposal form, therefore you are advised to inform your IP agent/attorney that you are seeking IP insurance.

Always ensure that you request and read a copy of any insurance policy you are considering, as policies vary greatly. If you have any questions regarding any part of a proposal form or insurance policy, ask for clarification from your insurance company contact. It is also advisable to ensure that your insurance provider is a member of a recognised insurance standards council and/or insurers trade association.

IP Due Diligence

Of course, the other aspect of avoiding IP risk is to ensure sufficient due diligence when dealing with IP acquisition or usage. In the specific field of Intellectual Property, due diligence traditionally involves verifying the existence and validity of intellectual property itself within the context of a financial negotiation. In short, what is the value of the intellectual property?

Inbound and Outbound Due Diligence

'Inbound' due diligence is a due diligence exercise carried upon the IP of your company by another company, investors, buyers, etc. The purpose is always to establish whether your IP exists, is valid and enforceable (if appropriate).

'Outbound' due diligence is a due diligence exercise carried upon the IP of another company, which your company is interested in acquiring/using/copying, with a view to an outright purchase, a usage license or simply check against potential infringement liability.

Regardless of whether you are looking to acquire or using IP, whereby you would carry an outbound due diligence exercise, or looking to gather capital, whereby your VCs would carry an inbound due diligence exercise, most of the information below applies and therefore, just substitute 'Investors' therein as appropriate to your situation

Due Diligence 101, applicable to Inbound and Outbound

Within the context of a financial-type negotiation, a due diligence exercise aims to find out whether the price tag you have put on your IP or a portion thereof as a license, assignment or portion of company share price is warranted. Alternatively, it maybe carried out by your competition to check whether an infringement liability may arise out of their tweaking some or all of your IP without the safety net of a license, ie without your consent, express or implied.

Thus, when your investors or suitors or competitors consider your portfolio of patents and/or trademarks and/or registered designs, the three overriding questions are:

1. What is protected;
2. Where is it protected; and

3. Have renewal fees (if applicable) been paid, ie is the patent, trademark and/or design registration still in force?

In matters of software-based businesses, of which most game companies are, answering 'plenty' to (1) and (2) above, as well as 'yes' to (3), guarantees your investors you are a worthy and serious business, and your competitors that they better come sit to the table to do a deal. Answering 'nothing' to (1) guarantees you will never, ever even get a look in from anybody to make a deal!

Patents

Investors most favour registered rights, such as patents which, as a result of the Web bubble blowing up in their faces not so long back, have become a commodity of sorts: potentially, the only cash-generating assets when it has unfortunately all gone south. Alternatively, investors see patents as an attractive and effective market tool to generate licensing revenue and block competitive products through the use of cease-and-desist orders (which inform the recipient that you suspect they've infringed on your patents, and that you intend to enforce your rights). It is therefore important to maintain existing patents in your IP portfolio by paying appropriate renewal fees (depending upon the jurisdiction) throughout their enforceable life.

Registered Trademarks

Investors next favour trademarks, even if those may be relatively new and have comparatively little 'pull' in the market-place. They are registered and may for instance suit a new start-up or a division of the acquirers, with no need to incur the costs of a new concept, search based upon it and registration thereof. Similarly, they are registered, therefore there is an element of certainty for the mark which may help the acquirers hinder the competition in some situations.

Registered Designs

Investors are still lukewarm with regard to registered designs, because in some jurisdictions these have a very short lifespan. They are also 'too' certain, in that the design protected is the representation filed and there is little room available for considering nearly-but-not-quite copies, unlike patents (the claims of which are 'stretched' for the infringement to fall therein) or trademarks (which are similarly 'stretched' for the risk of confusion to fall therein). Their value in an IP portfolio tend to remain under-estimated, but this situation is slowly changing, especially in the field of registered GUI designs.

Copyright

Investors least favour situations wherein your IP portfolio only includes copyright, because of its inherent non-registrability in some jurisdictions and, regardless of whether it is registered or not, fairly complex issues related to jurisdictional differences between countries in terms of who owns it or (worse) which portion is owned by whom, etc. As opposed to patents, trademarks and registered designs above, there is no 'certainty' in copyright, other than the form in which it is expressed – whereas any of the above registered IP rights have a registered owner and can thus be traded within a chain of ownership.

The existence of copyright is paradoxically much easier to check in a due diligence exercise (but note that it depends entirely upon your in-house documentation systems) than patents and trademarks what protection copyright confers but, irrespective of the longevity of the right, which some may expect to be an important valuation factor, copyright only ever attracts value if it covers a work that competitors will want to copy, and the value will thus depend upon how badly they want to copy it: how badly do you want to include a copyrighted, world-famous mouse in your next game?

The question of substantiality of what is copied is covered elsewhere in this paper but, as a brief reminder, it involves estimating whether the copied portion of the copyrighted work is a substantial portion or not, if only a portion was appropriated (e.g. the AI algorithm, not the whole engine/game). Within the context of a due diligence exercise, the issue of substantiality does arise if your copyrighted code includes licensed copyrighted works (characters, music, samples, engine code, etc.), but putting a value on it or advising upon potential infringement then becomes elaborate guesstimating at best.

Indemnification

Intellectual property indemnification is just another way of talking about one party "insuring" another party for loss due to an intellectual property problem. Intellectual property problems come in a variety of forms, normally lumped into infringement actions, and they are often expensive.

The following is an example of how intellectual property indemnification might work in a contract between a developer and a publisher. The example can easily be extended to a developer and other parties. Please see the licensing section of this document and your attorney for more information.

1. A developer signs a deal with a publisher. The publisher may ask the developer to guarantee/warrant that the developer either:
 - A. Has created the IP in the game originally, therefore they have the right to permit its use/license it etc.
 - B. Has negotiated the appropriate permissions/licenses for the IP they use in the development of the game.

This may be useful later against the developer if there is an IP dispute. The publisher is attempting to shield themselves from the risk of infringement losses.

The actual indemnification clause may come in at least two forms. If the publisher has an IP dispute with a third party then:

- A. The developer agrees to pay the cost of defending the dispute.
- B. The developer agrees to pay any damages that result from the dispute.

Of course there is always the option of both A and B. There are also other details including what level of cooperation (in addition to money paid) the developer would be obligated to in the case of an IP dispute and who selects the law firm to defend the dispute etc.

It is always the case with any licensing or contract negotiation that nothing is standard. Every deal is different and it pays off to have your attorney thoroughly discuss these matters with you. Use the above example merely as a guide to what types of agreements are possible and what a developer might be asked.

Because of these clauses, if you are acquiring or licensing any IP for the game from a third party, your company naturally also needs a similar indemnification from that third party in the associated work for hire agreement. Without this assurance, be very wary of giving this type of protection to the publisher as you would then be assuming liability for any infringement by that third party even if you were not aware of it.

18. Links and References

United States Patent and Trademark Office

<http://www.uspto.gov/>

United States Copyright Office

<http://www.loc.gov/copyright/>

Copyright Database

<http://www.copyright.gov/records/>

UK Patent Office (including Trademark and Copyright information)

<http://www.patent.gov.uk/>

European Patent Office

<http://www.european-patent-office.org/>

European Patent Office (Links Page - all patent offices in the EU)

<http://www.european-patent-office.org/online/>

Japan Patent Office (including Trademark information)

<http://www.jpo.go.jp/>

U.S. Department of Justice - Computer Crime and Intellectual Property

<http://www.cybercrime.gov/>

World Intellectual Property Organization

<http://www.wipo.org/>

EU Intellectual and Industrial Property

<http://www.eurunion.org/legislat/iiprop/iiprop.htm>

The Intellectual Property Law Server (Portal)

<http://www.intelproplaw.com/>

Cyberlaw Encyclopedia (Portal)

<http://www.gahtan.com/cyberlaw/>

Opinion Essays

Introduction

We are pleased to include three very different essays in the White Paper that discuss issues involving Intellectual Property Rights in Game Development. The essays are included to introduce some of the aspects of Intellectual Property Rights the Committee will be discussing in the future as well as present some of the diversity already represented on the Committee.

We start with Chris Burke's essay on Inspiration vs. Plagiarism. Whilst plagiarism has a strong ethical critique, it is defined in IPR law. Chris' essay explores plagiarism in contrast to inspiration.

The second essay by Ren Reynolds explores the issue of character and avatar ownership. Do players hold any IPR if they invest their time in creating characters for games? Ren is very passionate about this subject, and explores the issues of ownership, in this essay.

We conclude the essays with Stéphane Ambrosini exploring intellectual property rights as a creative business tool. Intellectual property, used effectively, can turn the tables in negotiating. His essay explores how those at the creative end of game development can protect themselves and improve their negotiating power.

19. The Gray Zone: Inspiration vs. Plagiarism

An Essay by Chris Burke

Every art, science, and technology known to man derives from the accumulated wisdom of those who have gone, done, and thought before. The process of recycling and improving upon ideas is a beneficial process, and a source of income for the creative and industrious. Law protects and encourages this process by recognising specific expressions of ideas, and specific embodiments of ideas, as intellectual property.

Ideas and their embodiments make us think. In an aesthetic sense, we think "Wow! That moves me!" In a creative sense, we think, "I could take that to the next level." In a business sense, we think "I could make that for less money or, with a few changes, take it into new markets."

When is acting on these thoughts inspiration, and when is it plagiarism? Some scenarios present an obvious answer, while in others the answer is less obvious. It is these ambiguous scenarios that constitute what I call The Gray Zone.

Defining Inspiration and Plagiarism

Our first steps into The Gray Zone require an understanding of basic terminology. The presentation of terminology will, itself, serve as an introduction to the operating principles of The Gray Zone.

"inspiration, n. The infusion or communication of ideas or poetic spirit by a superior being or supposed presiding power; as, the inspiration of Homer or of other poets." – Webster's New Twentieth Century Dictionary, 1950

"plagiarism, n. The act of appropriating and representing as one's own production the literary work of another; literary theft." – Ibid.

Someone, perhaps a grammar school instructor, might once have told you that you must never, ever begin your writing with a definition – but that it's quite all right to begin with a quotation. Did I just begin with a definition (bad), or was it a quotation (ok)?

The notion of a superior being or presiding power is central to Webster's idea of inspiration. Put another way, inspiration comes from someone or something greater than us, and makes us reach toward that greatness to claim it, in our own words or expressions, as our own.

Plagiarism makes no such pretence. When a work was created, in whole or in part, by another yet we say we created it ourselves, that lie is plagiarism. It doesn't matter whether we stole credit from a god or a peasant, a friend or an enemy.

The relationship between inspiration and plagiarism forms a continuous spectrum of information re-use techniques, with a large Gray Zone in the center. Let's look more closely at this spectrum.

At one extreme, we see something in nature, and in our mind a solution comes together inexplicably: the answer to our industrial engineering problem lies in the motion of the whale in a tide. Inspiration!

At the other extreme, we make a false claim (whether implicit or explicit) about literary creation: "I wrote Paradise Lost." Plagiarism, unless you are the John Milton who actually penned the work.

In The Gray Zone, we experience something – a Muse – that motivates us to set down a work on paper or in electronic media. Paradoxically, the more the Muse informs our work, the less we can claim it as inspiration. In the limit, "our" work is actually that of the Muse. If we've watched carefully, we've been taught rather than inspired; if not, we're become nothing but a vessel and a plagiarist.

Exploration of The Gray Zone from an ethical perspective, while intellectually interesting, will not be the primary focus of this essay. Rather, the distinction between being taught and being inspired proves itself of crucial importance in intellectual property law. It is along these more pragmatic lines – what is legal, what is illegal, and what might one get away with – that I intend to proceed.

A Capitalist's Take on Intellectual Property

"What," you might ask, "does an antique economic philosophy have to do with inspiration, plagiarism, or intellectual property law?"

Quite a lot. Our shared understanding of the economic nature of intellectual property will serve as a kind of Polestar by which we can navigate the turgid waters of The Gray Zone.

Fortunes are made by controlling and adding value to cheap, abundant raw materials, whether through manufacturing or through transporting materials to markets in which they are relatively scarce (aka arbitrage).

In business terms, a free market is the community within which price and availability information are transmitted instantaneously. Economic "laws of supply and demand" cause equivalent goods with equivalent availability to have the same price everywhere in a market.

Within the framework of Capitalism, a literary work is a virtually free and infinitely renewable resource because it contains valuable information, the cost of reproducing which technology – whether the printing press or the Internet – has lowered to negligible levels. As examples of value, a literary work might incorporate a popular story, the recipe for Coca-Cola®, or the plans for building a cold fusion power source. Each of these represents vast potential income (and therefore, capital) to anyone who can add the value of printing, formulating, or constructing the literary work. Printing, formulating, and constructing are all relatively low in value – the necessary skill sets and equipment can be purchased as commodities.

The developer of a literary work invests capital – time, money, talent, and resources – to turn an idea into a resource. Intellectual property law prevents these virtually free, infinitely renewable,

value-addable resources from becoming cheap, abundant raw materials with no return on the developer's investment. This is accomplished recognising the work as something that may be owned and used in commerce, and by granting the owner a limited legal monopoly to use the work.

A monopoly is a business operating in a market without competition for its goods. Economic "monopoly powers" allow the business to set the price of goods based solely on demand; there's no need to worry about being undersold by competitors. The resulting prices are higher than those created in a free market.

When the monopolised goods are intellectual property, the copyright, trademark, or patent monopoly means that although in fact anyone can easily and freely obtain the intellectual property (e.g. by simply copying it), by law everyone (with very few, generally non-commercial, exceptions) is prohibited from adding value to the intellectual property without the permission of the owner. The legal monopoly makes the intellectual property by law relatively scarce within its market, but cheap and abundant to its owner.

As a source of wealth, intellectual property is much like a diamond. Diamonds are not rare, but supply is closely regulated by cartels that own the diamond fields. Their profits are determined by how much demand they can create for diamonds, combined with their ability to regulate supply.

Capitalism as an economic philosophy acknowledges intellectual property, and most other private monopolies, as legitimate and ethical. No government in the world today is purely Capitalistic, but many have established domestic laws and entered into international trade agreements that respect the Capitalistic principle of intellectual property.

Inspiration and Plagiarism Revisited

I've suggested above that the distinction between being taught and being inspired is of crucial importance in intellectual property law.

Works protected by copyright, trademark, and patent laws share in common that each must be documented to the extent that appropriate workers of ordinary skill may learn to reproduce them. In the case of a literary work protected by copyright, the work is itself the documentation – one who reproduces the documentation reproduces the work. In the case of work protected by patent, the required documentation is not the work itself, but rather the instructions for reproducing the work.

If you are capable of experiencing and understanding a work protected by intellectual property, you are by definition an appropriate worker of at least ordinary skill. In understanding the work and reproducing it, you achieve nothing unusual. Doing so without a license makes you a plagiarist.

Let's look more closely at the idea of stealing credit, in the context of intellectual property. The intellectual property monopoly gives the owner of the patent, trademark, or copyright legal control over most uses. As a practical matter the owner has the ability to dictate terms of use (a

license) to anyone who wants to add value. The license can specify pricing, but also dictates restrictions on use of the property and liability for use, dispute resolution procedures, and how the owner of the property will be credited for her contribution once the value has been added.

Making any use of intellectual property without obtaining a license, or inconsistent with the license, can be plagiarism. It doesn't matter whether the use is for-profit or non-profit. It doesn't matter whether credit is given for the intellectual property. It doesn't matter whether we're more skilled or less skilled than the owner of the property. The plagiarist has disrespected the legal right of the owner to establish terms of use, including pricing and how the use will be credited; the plagiarist has taken these rights, the result of the literary work of another, as his own.

Suppose you experience and understand a work protected by intellectual property law, and you to make an improvement. You have truly been inspired, exceeding the expectation of an ordinary worker. You want your own intellectual property rights, and indeed, with proper documentation and application to the presiding government, you might get a patent on your improvement.

Your invention does not, however, invalidate or supersede the status of the original work as intellectual property. Your work depends on the original, and you must license the original from its owner before adding your value. It's a two-way street, and the original owner can't incorporate your improvement without licensing from you. Perhaps the two of you can come to a mutually beneficial agreement.

Sometimes a work exists in a given market with a given application, and you think of another application for similar concepts. You have been inspired! Will you develop a new solution yourself, or find a way to repackage the original work? Clearly the later requires a license from the original owner. Either way, talk with a lawyer and study the original intellectual property to understand what you do and don't need to license.

Raw Materials for Game Developers

The process of game development is one of adding value to intellectual property. Most of us naturally seek the least expensive and most suitable raw materials for our projects. Again, consider the limits. If material A and material B are equally suitable, but material B is twice as expensive, it's common to choose material A. If material C and material D are the same price, but material B is the more suitable, it's common to choose material B.

A game developer's raw materials include created and licensed intellectual property ranging from source code to libraries to music to artwork to 3D models to patented technologies and more. The developer adds value by refining and arranging these raw materials into a form of entertainment.

Some of these refining and arranging actions are clearly inspired, others clearly plagiarised, and yet others, somewhere in The Gray Zone.

Using or sampling pre-fabricated materials seems like a great way to reduce costs while achieving both quality and a unique, evocative mood. There's nothing wrong with sampling or

using intellectual property, as long as you have a license from the owner. If your raw materials are truly in the public domain, they're available free of both cost and license.

Fair use is a very narrow defense to an action for infringement. Section 107 of the US copyright law lays out four factors to be considered to determine whether a use is a fair use. In my experience, fair use is not automatic. License for certain "fair uses" of intellectual property is automatic. Your safest legal assumption is that none of the "fair uses" apply to materials used in game development or game asset development, whether for-profit or non-profit.

Here are some common sources of raw material for games, and some hints on how they might inspire you without driving you to plagiarism.

Public Domain Content

The best and worst thing about public domain content (music, sound, art, models, code, algorithms) is that it's freely available to anyone. You can use this content as-is without fear of legal hassles; so can anyone else who wants to copy you. You don't own the content, so you can't copyright or trademark or patent it as-is.

In The Gray Zone, you can add value to public domain content and might succeed at copyrighting, trade marking or patenting the added value. You can use public domain content as a framework for creating your own content, by editing the content, and might succeed at copyrighting, trade marking or patenting the edited version.

Copyleft and GNU Public License Content

These terms refer to specific licenses for intellectual property. Often this intellectual property (most often source code) is communally "owned" by everyone who has contributed to its creation, and the terms of the license allow anyone free use of the property as long as they don't change the license and don't make a profit on the property or any derivative work. Copyleft and GPL absolutely rely on the legal validity of intellectual property rights, particularly the ability of the owner if intellectual property to dictate terms of use under a government-granted limited monopoly.

If you use GPL code or Copyleft content (all of it, or samples and excerpts) in a commercial project, you violate the terms of the license and are breaking the law. To use GPL code or Copyleft content legally in a commercial project, you need to identify the legal owner(s) of the intellectual property, and negotiate a commercial license.

In The Gray Zone, it's often impossible to identify the legal owners of GPL code; ownership is communal. You can still use GPL code as a source of inspiration for commercial projects, by studying the algorithms and structure of the code, and creating your own "work-alike". One common technique, "backfilling," begins with 100% GPL code and systematically replaces functions and architecture with proprietary or public domain equivalents until nothing covered by the GPL remains. The result is your own intellectual property. If you want to try this, consult with a competent attorney first to decide whether you want to keep very good, or very poor, records of the process.

Sampling And Quoting Intellectual Property

Copyright protects a lot of really appealing and complex content. Sometimes all a developer wants is a little piece of that content to create just the right mood in an image or musical arrangement. It's tempting to take a sample and use it commercially. That little sample can become the subject of a legal firestorm if used without permission.

Macintosh guru Guy Kawasaki was fond of saying, "Ask forgiveness, not permission." It's important to remember the context of Guy's admonition: it was about doing the right thing, rather than blindly following The Corporate Rules. It wasn't about taking things that aren't yours. Getting permission (from the owner) before using sampled content is doing the right thing.

In *The Gray Zone*, you have several legitimate and inspired alternatives. Consider replicating the sound of a sample of music, or the look of a sample of an image, using your own artistic tools and talent. If you have talent, you can use a technique similar to "backfilling" (see above) to construct an entire work that is definitely not the original, definitely not built from literal samples of the original, and yet blatantly evocative of the original.

20. Copyright on Avatars/Player-Created Characters

An Essay by Ren Reynolds

The law really has not caught up with a lot of what goes on in cyberspace. One glaring example of this is the active trade in MMORPG avatars and virtual objects such as swords, scrolls and gold. Current laws are at best silent about the legitimacy of this trade and at worse very confused. What's more this is a very real issue that must be resolved for at least three practical reasons:

- 1) There are disputes between developer-publishers and players as to whether this trade is legitimate or not
- 2) Significant sums of real money are changing hands on a daily basis without any good legal framework to conduct trade
- 3) People are getting ripped off

In this essay I look at why laws such as copyright fail to apply to avatars. I will also examine the kind of changes that might be made to accommodate avatars and the potential consequences of these. Finally I will conclude that the commoditisation of avatars is an attractive short term fix that ignores very real social values and in the long term will be detrimental to the development of online communities; and moreover I show that we should look to adopt an alternative legal framework for avatars that reflect these values.

Copyright

There are a number of laws that seem applicable to avatars. The most commonly used of these is the Intellectual Property Right law of Copyright.

Copyright is a right (strictly speaking a limited monopoly) to, among other things, control the creation of copies of a work. If copyright applied to avatars it would provide a legal framework whereby trade in avatars could be understood in terms of being the property of a copyright holder who would be free to transfer this right to another.

But copyright, as currently defined, does not apply to avatars (at least as they are presently constructed). This is because, while software is covered by both EU and US copyright law, avatars fall outside the prevailing legal definitions. Specifically, both jurisdictions see software as a category of literary work. The relevant EU directive defines software in the following way:

"the term 'computer program' shall include programs in any form "

Similarly the US Code states:

"A "computer program" is a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result"

In practice, case law has established that copyright applies to object code. However, avatars are not object code. They are data. Or at least an essential part of them is held in the form of a database entry. Hence copyright does not extend to avatars.

Even if an avatar was instantiated in object code it is questionable whether copyright would apply to their trade. As Molly Stephens has outlined, copyright restricts the act of making copies, but when an in-game asset is transferred from one player to another a copy is not necessarily made. Moreover, as discussed in my recent paper on ownership in community based games one can also question whether avatars pass the necessary tests of originality or authorship required for copyright law to apply in the first place. It also seems clear that as database entries, avatars even fail to be covered by EU legislation on databases too.

We can play similar legal games with trademark law, moral rights (in the EU) and rights of publicity (in the US). The conclusion is the same each time – avatars just don't fit into the present legal framework provided by either system; the legal world in which avatars fail exist is every bit as strange as the virtual worlds in which they operate. Meanwhile let's not forget that right now on playerauctions.com someone will be paying real money for something that legally does not exist as an item of property - we need a solution to this.

Licensing

One way to bring some order to this chaos appears to be through licensing. Software is seldom sold to end users in the sense of a physical property transaction. Generally speaking, a user pays a fee to licence a piece of software and an End User Licence Agreement (or EULA) determines what can and cannot be done with that software. In this case licensing side-steps the issue of avatar ownership because the licence can apply to the client software alone and be neutral as to the ownership of an avatar itself.

So a EULA could state that the only avatar that can be used with an individual piece of client software is the avatar created with that software and furthermore, that the client software is not transferable. This would effectively make the trade in avatars a breach of the contract between player and developer/publisher without making any claims over who owns the avatar.

While such a clause could be written into a EULA it is highly questionable whether it would carry any legal weight, at least in the EU. Council Directive 93/13/EEC 'on unfair terms in consumer contracts' sets limits on the extent of contracts including software licences. It seems to me that it is unlikely that such a restriction to consumer action would be allowed under this directive, especially a granting the legitimacy of this clause would begin to implicitly define the status of an as yet undefined legal object – the avatar; which brings us back to square one again.

Players as owners

Another approach is to forget, for a moment, the technicalities of current copyright and other intellectual property laws and consider arguments that fall under the spirit of the legal traditions at hand. Taking this approach there are a number of arguments that suggest that avatars should be items of property, and that the owners should be the players. To me, the most compelling of these arguments is the simple fact that when a player gets their MMORPG client software there

are no characters 'in the box'. In other words, a player has to expend effort to create a character. Under the traditional labour theory of property rights derived from Locke this situation suggests that property rights should be granted to the player–creator as writ. Yet even this glimmer of clarity does not necessarily reduce the overall legal confusion.

Duty of care

If we grant that avatars are the property of players then the developer-publishers suddenly become the guardian of other people's property, which puts a significant burden of responsibility, a duty of care, on the developer-publisher. As Vincent Scheurer has pointed out, if players own their characters then a developer publisher might not have the legal right to sell or discontinue a game. What's more given the latent value of virtual items calculated by economists such as Edwards Castronova , developer-publishes would have a duty to protect their servers and software with banking level security – which comes at banking level costs. Thus granting property rights to players is likely to act as a disincentive to create avatar based games in the first place, which does not look like its in anyone's interest.

Philosophy & Pragmatism

I think that the analysis above demonstrates that there are no immediate legal options to bring clarity to the issues raised by avatar trading. I also believe that the analysis indicates that attempting to simply fit avatars into a pre- existing legal schema, especially one base on property rights, is fundamentally flawed.

The approach that I advocate is two pronged. First, we should dig deeper into the basic nature ie the ontology, of avatars and seek to understand them in terms of a reformulation of some traditional philosophical traditions, particularly the Hegelian personality theory of property and the post modern construction of self – I will not pursue this approach here. Second, we should look to see what kind of values are currently associated with avatars and which values are likely to be associated with them as virtual worlds develop; then combine this with the philosophical re-formulations to construct a homogeneous, socially supporting legal framework that also accords with technical, practical and economic limits of virtual worlds. In the final part of this essay I will explore some of these potential social values that we may wish to take into account.

Bonds of trust

Avatars are identified with players, and players identify with their avatars. The values associated with this interplay of identity seem to me to be central to any debate about the legal and social status of avatars.

What I mean by this is that acts in virtual worlds gradually construct identity within a group or set of groups, moreover these groups are not passive spectators. Through their interaction they form part of identity creation and are the very people who recognise that identity.

Relationships are formed

Bonds of trust and mistrust are established. All this is centered on and conducted through avatars. Hence the avatar becomes more than a simple instrument or object, it becomes a necessary part of the nexus that holds social groups in virtual environments together. Sure, someone can simply stop using an avatar or sell one to someone else, but in doing this they are not just making a transaction within an alienable commodity. They are breaking social bonds. In some cases they are betraying trust - and it is here among the very real values and emotions that are inseparable from virtual community interaction that we should begin to build our legal framework.

Conclusion

The law has almost nothing useful to say about avatars, yet we live in a time where some people spend more work and pleasure time operating in virtual worlds than they spend interacting in the physical world. Companies and players are in dispute over the sale of virtual goods and identity and there is a growing wave of virtual world related fraud.

The obvious answer seems to be to extend current laws to commoditise avatars and virtual objects. Such attempts towards solution appear to deny the very real social values that are being attributed to virtual communities and the instantiation of community members i.e. avatars. So while some avatars will remain simple instruments or play things, I believe that virtual communities mature, be them based in game worlds or other virtual spaces, we will increasingly associate avatars with personal identity, to the point that selling an avatar will seem as inconceivable as selling your very self.

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21. IP ownership: A new approach to Publisher-Developer Relationships

An Essay by Stéphane Ambrosini

Any business involved in creating, producing, publishing and distributing games is ultimately after revenue: games are a business, not a charity. As in any other industry, therefore, one would expect any of these businesses to be on the lookout for any possible source of permanent revenue, rather than concentrate on delivering a product after years of investment, which the specialist press and the end-customer may decide to make still-born on release.

Moreover, putting aside the common practice of publisher-driven, license-based game development, an evolving business model for original content development holds that developers bear an increasing portion of the up-front development cost, whilst publishers bear the final portion thereof (if any) and the ballooning publishing and marketing costs.

For an industry based near-entirely on the exploitation of intellectual property, it is therefore surprising to see developers willingly assigning original IP to publishers in order to secure a publishing deal, when retaining title to their IP rights can help them secure revenue at other times than just after the Christmas sales bonanza, and even if their latest title bombs at retail.

IP is not all about game characters, even if characters are the most recognisable facet of a game. IP in game characters is covered somewhere else in this Paper, but IP in games is a vast subject matter and comprises many different forms: patents, trademarks, designs and copyrights, all of which form the basis for commercial exploitation, in concert or singularly.

A new approach to relationships between developers and publishers is proposed, based upon the ownership and exploitation of original Intellectual Property, to be understood as technology and/or content created by the developer. The current IP flow will first be summarily explored, before detailing a preferable situation which some may call naive but enlightened others may usefully reflect upon.

The Current Paradigm

License-based games

A publisher secures a commercial license from the author(s) of original content, such as comics publishers, sports leagues, movie studios or car manufacturers. Usually, this license will mostly focus upon the exploitation of widely-recognised trademarks (the ex-World Wrestling Federation, being one such example) and/or the exploitation of widely-recognised copyrighted material (comics and movies characters and/or storylines) within a tie-in game.

The publisher then doles out this licensed IP to a developer for them to do something therewith within budget constraints. The developer has thus access to licensed material (logos, drawings, score, script, 3D models for CGI-heavy movies, etc.) for inclusion in the game as art, music, storyline, etc. Putting aside license clauses that at times hamper this access and artificially extend the development cycle to the detriment of the budget, end-customers eventually decide

whether the game is good or bad at retail. Such games usually perform well at retail on the strength of the license, irrespective of the quality of the game.

Nonetheless, the developer has had to impart technological solutions upon the licensed IP in order to create on-screen interactivity and gameplay, thus potentially creating their own IP in the process. Now, depending upon the particulars of the publishing contract existing between the publisher and developer in the above context, clauses may assign this original IP to the publisher. The developer may therefore not further exploit this original IP without first obtaining a license from the owner: the publisher. Note here that a distinction is made between assignment (ownership transfer) and license.

Original content games

A developer creates original content: an original game! This game will automatically include copyright, in its design documents at the very least and may also comprise designs (if applicable) that may be registered. It may further include a trademark, for instance for the title, if it is applied for and subsequently registered. Some or all of the underlying technology may yet also be patented. This developer has therefore full access to and ownership of in-house developed intellectual property.

A publisher eventually signs up this developer for marketing and releasing their original game. Again, depending upon the particulars of the publishing contract existing between the publisher and developer in the above context, clauses may assign the original IP to the publisher, for instance as a condition of the publishing deal. The developer may therefore not further exploit this original IP without first obtaining a license from the owner: the publisher.

Again, end-customers eventually decide whether the game is good or bad at retail. Such games usually perform poorly at retail, with the few exceptions elevated by relentless and favourable reviews in the specialist press, irrespective of the quality of the game. This odd exception matters, however, because if the original game performed well at retail, then the publisher may now license the developer's IP back to said developer or another to develop a sequel: whereby the original game has now become a license-based game.

Should the commercial balance be turned?

Considering the IP ownership and transfers outlined above by way of example, there is little surprise in publishers retaining the upper hand in business negotiations. Whilst this essay is not particularly partisan against publishers, and mindful that in any industry some business types will upstage others, the inherent problem with the above state of affair, is that it is publishers who eventually decide how much revenue they get (by specifying which games they want to publish: generic types that sell and, if successful and with a good dose of proselytism, sometimes risqué new concepts) and, ergo, how much revenue developers get (by way of royalties). Having regard to the well-established stakeholder business theory, publishers have as main stakeholders retailers and end-customers, who provide the revenue, but developers have one main stakeholder: publishers.

It is the belief of the author that the commercial balance should, at the very least, be somewhat evened out. Given the unavoidable increase in development costs, time and team size for next-generation content, the only alternative is for small-to-medium developers to gather in co-operative groups (along the "Devolution" or "Game Republic" models in the UK) or, if they are cash-rich, go on an acquisition frenzy *à la* Infogrames.

What New Paradigm should be sought

License-based games

As previously, a publisher secures a commercial license from the author(s) of original content and then doles out this licensed IP to a developer for them to do something therewith within budget constraints. The developer has again full or partial access to licensed material for inclusion in the game as art, music, storyline, etc.

Within the new IP ownership and exploitation paradigm, however, protection of one sort or another (Patents, Designs) should be sought by the developer for the technological solutions imparted upon the licensed IP in order to create on-screen interactivity and gameplay, wherein the various property rights derived from this protection preferably remain the property of the developer upon concluding its association with the developer on the particular licensed IP project.

It is important to note here that the author does not advocate for the establishment of an adversarial relationship, but merely outlines the opportunity for developers (who are technology builders) to further capitalise on their endeavour by appropriating the portion of the project that they rightfully created, independently of licensed IP brought in by the publisher. Thus, revenue is derived for all parties involved pretty much as before on the back of the crowd-pulling licensed IP, and in the same ratios, but the developer now has valuable IP of its own to exploit as an added benefit.

Original content games

Again, a developer creates original content: an original game! This game will automatically include copyright and, within the new IP ownership and exploitation paradigm, any designs included therein should be registered. The game title should be applied for as a trademark and subsequently registered and some or all of the underlying technology should also be patented. This developer has therefore full access to and ownership of in-house developed AND registered intellectual property.

A publisher eventually signs up this developer for marketing and releasing their original game. On the topic of the publishing contract existing between the publisher and developer, clauses purporting to assign the original IP to the publisher, for instance as a condition of the publishing deal, should be repelled and the IP in question should in fact be licensed by the developer to the publisher for the duration of the title(s) publishing deal. The publisher may therefore not further exploit this original IP outside the terms of the developer's license without first obtaining another license from the owner: the developer.

Again, the author here merely outlines the opportunity for developers (who are content creators) to further capitalise on their endeavour by appropriating the portion of the project that they rightfully created, all the more so if they created most of it out of their own personal or corporate pocket. Thus, revenue is derived for all parties involved pretty much as before, and in the same ratios, but the developer now again has valuable IP of its own to exploit as an added benefit. This time, however, the developer decides whether the original game becomes a sequel-spawning title or if any of the IP thereof may be re-used at will in other, different games.

The rationale

The games industry is big business and maturing fast and, much like any other industry, there should be room enough for big, medium and small players. One of the possible reasons why this segmentation has yet to take place is because middleware, which was supposed to conceptually replace the bedroom coder ethos (allowing developing teams to go back to human sizes again, facilitating game content experimentation with fast prototyping, etc.) remains too expensive for small independents. Yet middleware is desirable, because end-customers do expect content to reflect the respective price tags of both their hardware and software, and to be plentiful.

The new approach to IP development and retention by developers as outlined above should accelerate the suggested segmentation, wherein revenue is derived by all big, medium and small developers (not forgetting publishers!) from their respective IP licensed out as middleware.

By way of example, consider artistic cross-licensing (I'll lend you Sonic for your next game if you lend me Mario), based upon registered design right. Developer A would like to make a game similar to an original game created by B, say an FPS or a racing game, incorporating a goodly portion of the design created by B, because B has come with an innovative FPS GUI (which is registrable as a design in some countries) or a likeable character series that have met with high market approval. Alternatively, developer A would like to make a game reminding potential customers of an original game created by B, say a space trading game, incorporating a trademark created by B, because B's game title embodies a concept or gameplay in the mind of customers that has again met with high market approval.

Similarly, consider technological cross-licensing (I'll lend you my networking engine if you lend me your AI engine), based upon patents or, again, registered design right and/or copyright if you license the code itself: if you have had to build a new AI engine for the latest movie tie-in game you're creating, why not protect it then license it *à la* Unreal to other small-to-medium developers, for a license fee commensurate with the parties and the project involved.

It is important to note here that the author does not wish ill to specialist middleware developers and vendors, but merely outlines the opportunity for multiple tiers of turnkey technologies to co-exist within the production market. Using here an analogy, not everybody drives hundreds of thousands of dollars worth of sportscar to go from A to B, but anybody who has a car can go from A to B. The point here is that developers who manage to capitalise on their endeavour by creating, retaining and then licensing IP to other developers have opened themselves a new source of revenue other than game sales-based royalties, without having to turn themselves into middleware companies, whilst with games still needing publishing eventually, publishers needn't starve.

"Patent-licensing revenues are expected to quintuple by 2005 – increasing up to \$500 billions from \$100 billions in 1998." (AON.com)

22. About the IGDA

The International Game Developers Association is the independent, non-profit association established by game developers to foster the creation of a worldwide game development community. The IGDA's mission is to build a community of game developers that leverages the expertise of our members for the betterment of the industry and the development of the art form. Do the right thing and join the thousands of members, studios and partners that help make this mission a reality.

Personal Membership

The IGDA membership is made up of programmers, designers, artists, producers and many other development professionals who see the importance of working together to advance games and game development as a craft. Your involvement is critical to the success of your career, the IGDA and our industry.

By joining the IGDA, you join a worldwide community of game developers that shares knowledge, insight, and connections. From local chapter meetings, to online discussions, to committee output, the IGDA provides invaluable information and resources.

Studio Affiliation

Your team is your most valuable asset. As a Studio manager, you can reward and inspire your development team by affiliating with the IGDA. By joining the Studio Affiliation Program, a studio provides all of its employees with personal IGDA memberships, allowing them to connect with their peers and grow professionally and personally. In addition, Studios receive their own unique benefits and discounts, all while showing support for the community. Refer to the back cover of this report to see all the great Studios that are part of the IGDA.

Industry Partner

Your organization is essential to game development. Make a difference in the community you've helped to create by becoming an IGDA Partner. Send the message to game developers that your organization supports the growth and development of games as an art form, and backs the community at its roots. Gain exposure with IGDA members for whom game development is a way of life. The IGDA upholds the common agenda of game developers and the game industry. Be a part of that agenda by becoming an IGDA Partner.

Make a difference:

www.igda.org/join