There are several types of intellectual property:

- **Copyrights** protect material such as books, art, films, TV and music. For example, in a film, copyright includes its sound track, screenplay, set designs and the film itself. If that film is shown on TV, copyright will also protect the broadcast of the film.
- **Patents** protect new inventions and cover how inventions work. A patent allows exclusive rights to manufacture, use or sell an invention.
- **Trademarks** protect brand identities. You can trademark any name, symbol, logo or word which will distinguish your products or services from those sold by another trader.

Protecting ideas & innovation

Imagine an author who spends two years researching and writing a screenplay for a movie. Her work is protected by copyright, which entitles her to find a producer and negotiate for royalties. Royalties are money paid to a copyright owner for use of the copyrighted material. Royalties are usually a percentage of the retail price of each copy sold.

Piracy robs the author of her rightful due: the money and respect she's earned for her work, the payment for the two years of effort she invested. Moreover, if intellectual property rights were not respected, the book may never have existed in the first place. The author has taken a risk by spending two years of her life on the screenplay and may not have wanted to do so or might not have been able to afford to do so, if she knew that she would get less money for her efforts.

Freedom of speech

The fact that the Internet is not controlled or owned by any government or company is one of its greatest features. Freedom of expression is an important principle for democracy. To be exercised responsibly, it has to be balanced against other equally important rights including intellectual property rights. These enable creators and the businesses which promote them to enjoy the rewards of their creativity.

The Internet is very difficult to police, primarily because the Internet crosses borders and police do not. This means international criminals driven from one jurisdiction can set up shop in countries with weaker intellectual property laws.

Piracy is not anonymous

However, that does not mean that activity on the Internet is anonymous. In particular, P2P activity by its very nature is highly-visible. Owners of creative material have successfully sued providers of illegal downloads, including Napster, Limewire and Pirate Bay. In addition, individual downloaders have also been successfully sued in many countries including Ireland.

An Garda Siochana operate a Computer Crime Investigation Unit which cooperates with UK and European cyber-crime units to bring fraudsters to justice.

Conclusion

Online piracy is a real and growing problem that threatens many creative industries, especially film and music. Theft of intellectual property did not begin with the Internet, but the Internet has made it easy and widespread. People who download illegal materials do not always realise the consequences to the artists responsible for the material they are enjoying or the businesses that support them.

Glossary

Bricks-and-mortar business: A business with a physical retail location, e.g. a shop.
Internet Service Provider (ISP): An Internet service provider is a company that offers its customers access to the Internet.
IP: Internet Protocol, the standard method of transporting data across the Internet.
Overheads: The general, fixed costs of running a business, as rent, lighting and heating expenses, which cannot be charged or attributed to a specific product or part of the work operation.
WAP: Wireless Application Protocol, the standard way of sending information instantly to handheld wireless devices such as mobile phones and smartphones.

Student activity

1. Outline the impact of piracy on business.
2. Draft a letter to the MD of a music company outlining the benefits to the business of examining its virus protection procedures.
3. In groups of 3-to-4 students conduct a mini-courtroom drama entitled the *'People versus the Pirates'*. Each group writes a convincing argument for or against piracy. In particular they could focus on piracy in the music and film industry.
4. Discuss the opportunities and threats facing companies when they do business online.
5. Discuss ways in which businesses in creative industries can meet the threat of piracy. Consider the following possibilities and the risks they pose for the business:
   a. giving away free content
   b. suing online pirates.

the industry trust
For the promotion and protection of copyright and creativity

INFACT

Online Piracy

Learning outcomes

- Technology in business
- The structure of the Internet
- Online fraud
- The impact of piracy on business

Introduction

In a short time the Internet has become an everyday part of modern life. It has had an enormous impact on society, government and business and is continuing to evolve. People now have instant access to information, products and services from all around the world via the Internet.

Along with its many benefits, the Internet has a darker side: the ability to move instantaneously enormous amounts of data around the world has enabled fraud and piracy. Copyright theft is now at a scale never seen before in history. This case study will examine how unlawful activity on the Internet affects businesses, consumers, government and society.

Global online market

An online global market has grown rapidly in the last 12 years. More and more people and businesses are taking advantage of its potential.

Online businesses are easier and cheaper to set up than **bricks-and-mortar businesses**, with very low **overheads**. Having a simple website or virtual store on eBay, for example, gives a retailer access to a far greater market than a corner shop. Even retailers with traditional shops have realised the potential of operating online. According to one survey, over 80% of Irish retailers today have online stores allowing consumers to buy products from their websites. This figure has grown from 50% since 2006.

Online shopping and online payments have grown enormously over the last decade. Even in the depths of the recent credit crunch, online spending continues to grow, with consumers spending 10% more over Christmas 2008 than Christmas 2007. Consumer confidence with online shopping is growing year on year.

Fraud is moving online

However, online fraud is also growing, with around €700m stolen by fraudsters in 2008. In the same year, online banking fraud rose by 132%. One in eight businesses operating online loses over 5% of its revenue to fraud. For a business whose profits are 10% of revenue, this would mean that fraud would take away half of its profits.

Online piracy

Copyright theft is an illegal and criminal activity. A business that makes materials available illegally for download (that is without the permission of the rights-holder) would be open to litigation (lawsuits) from the owner of the creative work.

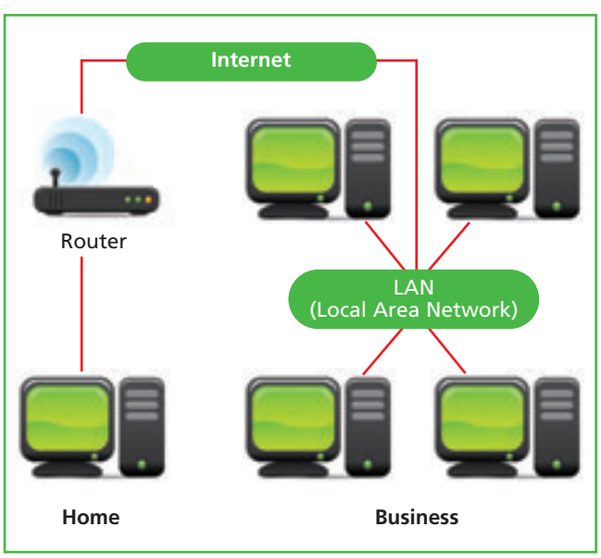
Copyright theft is the unauthorised distribution, duplication or download of an original creative work without the consent of the rights owner (who may be the original creator or someone they have licensed, who will be the rights-holder).

A recent survey showed that movie piracy cost the film industry $6.1bn and nearly 150,000 jobs. Recent research has indicated over 100,000 movies per week are illegally downloaded in Ireland alone.

To protect themselves, Internet users need to have turned on anti-virus software and a secure firewall. But this in itself will not always be enough: Internet users need a better understanding of how the Internet works, so they can take steps to limit risky behaviour. One place to learn about important topics such as viruses, spyware, browser settings, and phishing is Surf Safely (*surfthenetsafely.com*).

The Internet

The Internet is a 'network of networks'. When you go online, you connect to an **Internet Service Provider (ISP)**, such as Eircom, Irish Broadband, or NTL, your computer becomes a part of their network. These ISPs connect to each other through an even higher-level network. There are hundreds of thousands of such networks in the world, all communicating by joining together into one gigantic network that we call the Internet. There is no centralised control or ownership of the Internet.

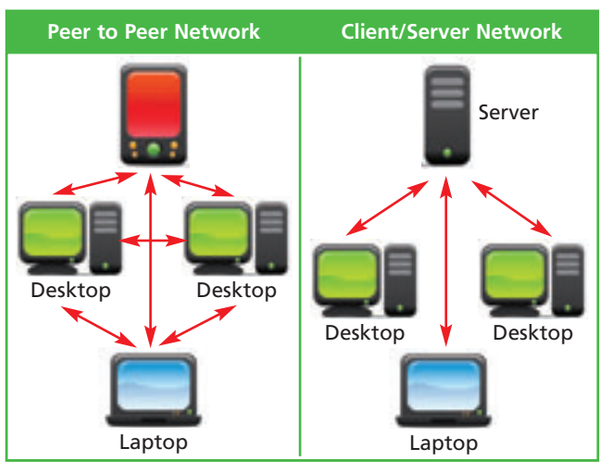


Data exchange

How does the Internet move data around the world? Think of how the postal service works. Each parcel is marked with an address that tells the postman where to deliver it and that address identifies one and only one house. In the same way, each device connected to the Internet is assigned a number called an **IP** address. Consequently the concept of online anonymity is a myth.

An IP address is unique to each computer. Data (such as an email or a webpage) is broken into small 'packets'. Each packet is marked with the IP address of its destination. The job of the postman is performed by a hardware device known as a 'router,' which delivers the packet to the correct destination. Once all the packets arrive at the destination, the recipient re-assembles them in order. Your web browser, email application or your **WAP**-enabled mobile phone then displays that data.

In order to make it easier for people, IP addresses are usually given a corresponding name, like *www.facebook.com* or *www.google.ie*. These names are called URLs.



Peer to Peer

Most networks are set up so that all data flows through powerful central computers called *servers*. People using personal computers or clients, will request data (such as a webpage) that is stored on a server and the server will deliver the requested data. If a client wants to send data to another client, the data will have to go through a server on the way. As new clients join, these networks need to add new servers or upgrade existing servers in order to meet the new demand for computational resources.

Peer to Peer (P2P) networks are networks in which there is no distinction between clients and servers. In other words, every computer talks directly to every other computer. This type of network has one major advantage over traditional client-server networks. As new computers join the network, they add as much as they take away: the average computer will add as many computational resources as it consumes.

Security risks

P2P has transformed the exchange of large amounts of data online. However, great advancements often come with a cost. Although there are legal and legitimate reasons to use P2P software, a major driver for its growth has been illegal sharing of copyrighted material. Because each computer in a P2P network is connected to every other computer, this also significantly increases the security risks.

Computers joining P2P networks such as Gnutella, KaZaA, and Napster typically expose part of their hard-drive to other users. Usually this is a single folder and its subfolders specifically intended to hold files for sharing.

However, things can go wrong. For example, the folder can be configured incorrectly, so that the user is sharing personal files that they have not intended to (such as emails or financial information).

In other cases the P2P software could have a security hole that allows hackers to access personal files.

Viruses

Another danger from P2P software comes from malicious software or *malware*. Since there is no centralised server, there is no way to control what content is available for sharing. This means that an irresponsible or malevolent user could introduce viruses, Trojan horses, spyware and other malware and spread it through the network disguised as a popular movie, song or application.

In order to join a P2P network, users must download some software and install it on their PC. In many cases, malware is hidden inside this software. This is often downloaded automatically at registration stage in seconds or less.

Thereafter this software has permission to bypass firewalls and PC defense systems.

Internet piracy

Piracy, the theft of copyrighted materials, denies the copyright owner of credit and royalties for his or her work and reduces the incentive to take risks in producing creative material. Creative works often require significant investments and if the project does not generate a return, future funding will be hard to secure and opportunities to create further works will diminish.

This is why piracy is bad for consumers, business and the economy. Piracy has a significant impact on manufacturers, distributors and retailers who sell or rent DVDs, music, and software. These companies, in turn, lose revenue that could have been re-invested in new artists, start-up businesses, or young entrepreneurs.

Piracy can also undermine sales of legitimate products, deprive a company of its valuable intellectual property and tarnish its brand. It can reduce the quality of creative material available to consumers.

Copyright & intellectual property

How can it be illegal for people to share information or data? The answer goes back to the idea of intellectual property.

The idea of intellectual property rights has been around for at least 200 years. The idea is simple: people who have original and creative ideas deserve credit for those ideas. If the ideas have commercial value, then the creator has the right to sell them, just as he has a right to sell any other kind of property. These property rights are protected by law.

Legitimate vs. Pirate Movie Release Timeline

The Legitimate Movie Business ***A major motion picture takes an average of two years to go from green light to home video release***

Production
Filming

Post Production
Editing • Special Effects
Dubbing

Theatrical Release
Movie Theatres

Non Theatrical Release
Hotels • Airlines
Press Screeners

Home Video
DVD

The Pirate Movie Business ***Within 14 days of theatrical release a good quality pirated copy of the movie is available in all major markets***

Production
Camcording in a Theatre

Post Production
Editing • Dubbing
• Conversion to
Internet Formats

1st Generation Camcorder Release
Earliest Public Showing
Camcord

2nd Generation Camcorder Release
High Quality Camcord

Stolen DVD
Rip of a Screener
Manufacturing Plant
Retail Distribution Chain

Home Video Rip
Rip of a Retail DVD