Special Conference 2 on Shifting Power Dynamics in a Globalised World

Tackling digital piracy

MODEL UNITED NATIONS
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Introduction

Copyrighted software is shared without the consent of the copyright holders. This is done through what is called 'digital piracy'. In recent years this has become a larger issue for companies that provide their content digitally. Whether they provide music, videos, computer games, or even educational software, they are all susceptible to digital piracy. Every year 59 billion dollars worth of software is stolen universally, 59 billion dollars that are not being included in GDP reports and untaxed. Not only does that hurt the producer of the content, it affects the nation as a whole as those tax dollars could be used to better their life in the nation. Furthermore, the user could be introducing unregulated content onto their personal device and put their privacy at risk.

Combatting digital piracy is a difficult conversation because there are many different ways that vary from medium to medium, and country to country. Business are currently doing their best to prevent this from happening, but how much of that lies at the hand of the users. One shouldn't steal a car, one shouldn't steal from the store, one shouldn't steal from someone's house, because you know that it does not belong to you and that someone has worked hard for it. So why does it become a blurry line when it comes to stealing media digitally.

Almost 13 billion dollars is estimated to be lost each year due to piracy in the music industry. This is incredibly unfortunate because it deprives these hardworking musicians of their earnings. Consumers who claim to love an artist are causing more harm than good by stealing their content. This is applicable to all forms of digital media meant for entertainment.

Definition of Key Terms

Computer Virus

A computer virus is a program that is often accidentally downloaded, when executed this application reproduces itself and modifies other computer programs "infecting" them its own code.

Copyright

Copyright is a property that allows the owner, all exclusive rights to create copies of a piece of work. This could be a piece of music, a video game, a textbook, or even blueprints. Copyrights must be renewed at the end of the contract.

Copyright Infringement

Copyright infringement is the illegal use and/or production of a piece of work that has been copyright-protected. It is infringement only when the copyright owner has not given permission.

Cyberlockers

A cyberlocker is a file storage service where all types of media and applications can be stored and easily distributed anonymously. This content can be downloaded and streamed all while generating profits as they are usually subscription based. These lockers cannot be searched by government or other authorities so infringement is not possible. Dropbox, MegaVideo, and even google drive can be used as cyberlockers.

Illegal streaming

Illegal streaming is where a user consumes a copyrighted content without the approval of the copyright owner on the internet without downloading the illegal file. The act of hosting and providing links to the unauthorized content is considering digital piracy, which is illegal. Putlocker, Solarmovie, and 123 movies are all examples of illegal streaming websites.

P2P

Peer-to-peer, abrevieted to P2P, is a website that allows the distribution of digital media files among others. The network is programmed in a way where you allow files physically stored on your computer to be available to be copied by others on the same network. The exact copy will be transferred over to the other computer on the network, this is a legal way to share large files. However it is more common to find this used used to share

copyrighted material. Furthermore this type of file sharing puts your privacy at risk, as your files can easily be accessed by millions of people who are on the same P2P network. While downloading files, you are uploading files at the same time. In other words: if you download a song or movie, you will also be sharing that file illegally to others. Strangers can easily have access to your private files, even those you would rather not have publicly available.

Piracy

Digital piracy is the illegal action of copying, sharing, or duplicating digital media and work without the permission or in a manner not intended by the copyright holder. This also counts as a violation of copyright laws.

Torrenting

Torrenting websites are a variation of P2P sharing websites. Normally when you download something of the internet you get it from a single source. However with torrenting, the large file is chopped into smaller pieces and distributed among everyone else torrent. Each person gets a different part of the file, at that point everyone is downloading the content off each other, the more people involved the smoother it works. These websites are more often used for copyrighted content, as it is more difficult to trace them back to a single account.

Trojan Horse

A trojan horse is a virus that was designed to enter the system security unnoticed, it may seem as if it is harmless, however it is often collecting data, mining bitcoins, or other unnoticable tasks.

General Overview

Ethics

Content that is shared digitally such as music, software, and movies require a large amount of time and effort to produce. The talented artists, programmers, directors, actors, book writers, graphic designers, and all others involved in the creation of such mediums are being disrespected by the choice of an individual to steal their content. It is to be known that digital piracy is no different than theft.

Counterpoint

It could be argued that some form of digital piracy can be justified, such is the case when companies charge absurd prices for content, or when certain content is not available in their region. Even then, it is not recommended to pirate content, and to look for alternatives instead. Many also argue that since everyone does it, its harmless.This is called the bandwagon fallacy, if a large group of people are currently pirating and getting away with it, why should you continue to pay for content. This is a dangerous mindset that sets back content creators and the economy

The numbers

The numbers economically cannot be directly pinpointed, however it can be assumed that that hundred of millions of people pirate content internationally. It has been estimated that within the Film and Tv industry, digital piracy has cost producers, artists, record labels, and everyone involved in the production between 29.2 billion dollars and 71 billion dollars annually. This is equivalent to a revenue reduction of 11% to 24%. Between 230,000 and 560,000 jobs have been lost as a result of piracy. This cost the United States GDP 115.3 billion dollars in 2017. Within the US alone there is a 12.5 billion dollars lost as a result of music pirating, and another 71,000 jobs lost.
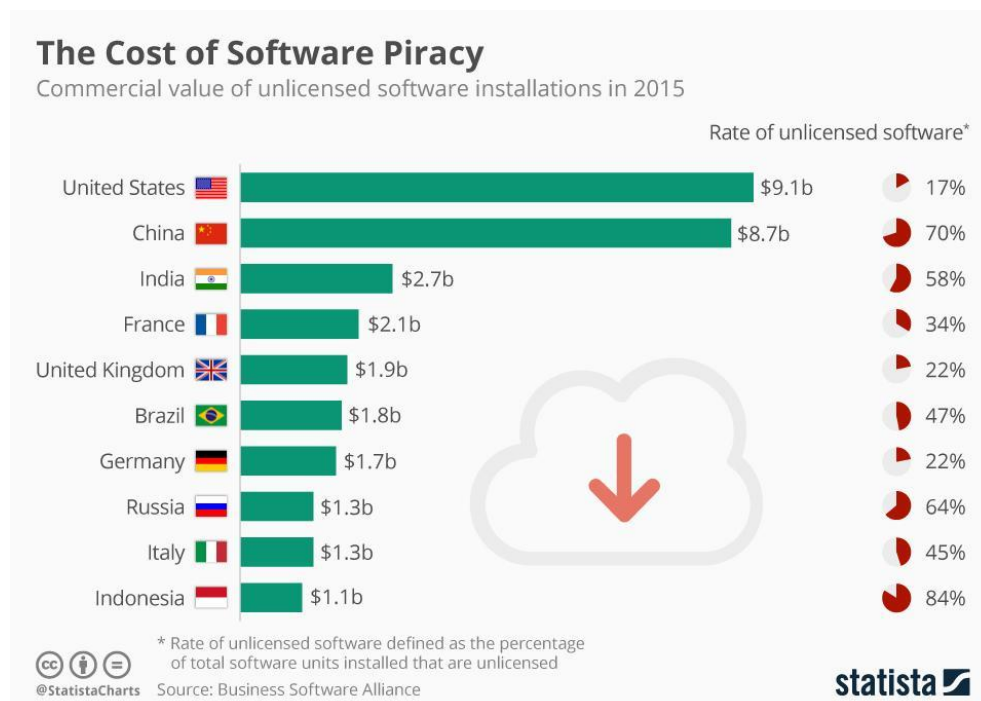
The Cost of Software Piracy
Commercial value of unlicensed software installations in 2015

Rate of unlicensed software*

Country	Commercial value	Rate of unlicensed software*
United States	$9.1b	17%
China	$8.7b	70%
India	$2.7b	58%
France	$2.1b	34%
United Kingdom	$1.9b	22%
Brazil	$1.8b	47%
Germany	$1.7b	22%
Russia	$1.3b	64%
Italy	$1.3b	45%
Indonesia	$1.1b	84%

* Rate of unlicensed software defined as the percentage of total software units installed that are unlicensed

@StatistaCharts   Source: Business Software Alliance

statista

Figure 1. Business Software Allience. "The Cost Of Software Piracy." Manufacturing.net, 5 July 2016, www.manufacturing.net/software/article/13225464/the-cost-of-software-piracy. Accessed 1 July. 2020

The Risk

As a consumer digital piracy can put you at risk. It is possible to end up in serious legal consequences that could result in hefty fines and jail time. Legal issues aside, downloading unregulated content places one at risk of malware and viruses that could compromise the security of their device. When you download something from a website, that owners of that website could intentionally embed viruses onto the file. It is also possible that since that website is not secure, a hacker could code a virus into the files. That virus could range anywhere from damaging your computer to stealing your data.

The infamous case of Napster

Napster was founded in 1999, it was a platform where music could be shared online using P2P networking. Within a year of its creation, it had become a hit, having over 20 million users sharing music for free. The creators of napsters and all those who used the software believed what they were doing no wrong. The music industry, however, did not see the same side as them, as it was a clear form of software infringement and had the software shut down within a year of it existing.

Major Parties Involved

China

Internationally, software developers work hard, but the chinese software developers work harder. China is the perfect example: showing that intellectual property rights are not respected and the effects on the economy are not measured. As a result, there are hundreds of knock-off softwares in China alone. However, the Chinese government has banned the pirate bay (the biggest pirating website easily available online), unlike the United States. The chinese government need to create stricter policies and regulations to lower the high rates of piracy.

The Business Software Alliance (BSA)

The Business Software Alliance (BSA) was founded in 1988 by Microsoft, representing commercial software developers. Like other organizations listed, its goal is to prevent and stop the copyright infringement of all software produced by its member companies. They have been successful in raising awareness of intellectual property, and enforcing policies in MEDCs

United States of America

The United States of America, land of the free, and land of the largest number of piracy culprits as a percentage of its population. Although it flies under the radar, they have been the biggest fighter of digital piracy as they are always trying to alter laws and regulations to regulate the effects of piracy.

World Intellectual Property Organization (WIPO)

The World Intellectual Property Organization (WIPO) was founded in 1967 and currently has 171 nations signed. The goal of this UN task force is to "lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all", as stated on their website. They have been successful in raising awareness of intellectual property, and enforcing policies in LEDCs.

Timeline of Key Events

Date	Event
1982	The use of the term "internet" is first publicly documented. This could be seen as the start of the internet.
1999	Napster was created by Shawn Fanning, Sean Parker, and John Fanning. The first case of free P2P content sharing.
May, 3rd 2000:	Limewire was founded. Similar to Napster, Limewire used P2P content sharing to all types of media for free
February 12, 2001	Napster was shut down after multiple legal battles with the RIAA
September 22, 2004	Bittorrent was created, it used a different form of media that would later evade most future copyright infringement policies.
February 14, 2005	Youtube was launched, the first type of online media streaming
October, 26th 2010	Limewire is forced to shut down due to newer stricter copyright infringement policies
On January 18, 2012	A number of well-coordinated protests occurred against two newly proposed laws in the United States Congress, Stop Online Piracy Act, and the Protect Intellectual Property Act. During these protests, hundred of websites went black or altered themselves in protest with these new laws that would have negatively impacted them

UN involvement, Relevant Resolutions, Treaties and Events

- Combating the Criminal Misuse of Information Technologies, 22 January 2001, (A/55/593)

Current and Possible Solutions

There are a number of ways to address the issue of digital piracy. The first would be to inform and educate consumers on what digital piracy. It is common for people to commit crimes by accident, simply because they were not aware that the act was illegal. This is usually the case for digital piracy. It is illegal to share your online content subscription credentials with another person, and yet 42% of users between ages 10 and 25 share these details with their friends, and did not realize it was a crime. If there were constant attempts by companies or government that bring awareness to this fact, these numbers would be reduced. A simple online campaign that defines and explains digital piracy, including the dangers of piracy, which are: risk of exposure to inappropriate contents, damaging viruses and malware and negative effects towards the content creators.

Companies should also be ensuring that they are making it as difficult as possible for consumers to illegally access their content. They could require you to log onto their servers each time you would like to use their software, and track for multiple devices that are already logged in. This would prevent the ability for consumers to share accounts with their friends.

Spotify and Netflix became aware that people would share their accounts with their friends, so instead of creating measures to prevent this, they embraced the change. They adapted their softwares to accompany how people would use it by allowing multiple viewers on the same account and having the price of the streaming account dependent on the number of viewers the cardholder would like to have at the same time.

Using Digital Rights Management (DRM) is a common piracy prevention method used by software companies. This technology firstly prevents the ability for unauthorized duplication of the content and allows the copyright holders to force the use of a licensing requirement for all its users. If it is difficult to share this content with others without the proper permissions, it is also difficult for user to obtain content. The same software makes it so that users are not able to use third-party software to record and redistribute the content by blacking out the screen. This can all be done by using some source simple code that is available online for all to use

Adding watermarks to content can lower digital piracy and distribution. There are 2 types of watermarks, visible and invisible. Visible watermarks are unattractive, large logos plastered all over the content, that can only be removed after paying for the content. Even with all the modern software, it is incredibly difficult to remove the watermark. Invisible watermarks are even harder to remove, because they are difficult to spot. The watermark itself is embedded into the data of the content file. There are special softwares created to

read this data. One piece of software can have unique watermarks on different devices. Content owners are able to identify which personnel had been distributing software under their noses.

Similar to watermarks, there is "fingerprinting". A digital fingerprint allows copyright owners to see if their content had been redistributed online somewhere without their permission. When an individual tries to upload a copyrighted piece of content to a website such as YouTube, Youtube has a fingerprint identification system which then analyses the content to check in the database for that particular fingerprint for authentication. Where placing watermarks requires physically inserting items into the content, the use of fingerprinting simply requires a single fingerprint unique to video and audio to be authenticated.

Making websites unavailable is a simple yet effective method to combat digital piracy. Copyright holders work hand in hand with internet service providers to block the access to large-scale illegal streaming websites. There are 3 different methods for blocking websites: Internet protocol address blocking, Domain Name Server blocking, and Uniform Resource Locator Blocking.

Software distributors can issue take down notices which are piracy countermeasures that interrupt and remove content that has been pirated. This method has changed alot in recent years, from the oldschool take down notice that would appear every few minutes, to real-time messages. It is often utilized by TV service providers as they are able to identify which users are consuming their content illegally, and provide them with incentives to try the legal alternatives.

This matter can also be dealt with legally, through anti-piracy investigations that end with the prosecution of individuals and/or companies that have uploaded or downloaded pirated content. The penalty for copyright violations is 150,000$ per infringement. This can easily rack up as piracy is often not a one-off event. Governments could make this fine even higher if they believe that it is necessary.. In fact, a change in law would probably draw enough attention for people to realize how large of a crime digital piracy is.

Evaluation of Current Measures

Each of the current measures that are implemented by their companies must have a reasonable success rate, seeing as it is becoming more and more difficult for people to pirate. However, all these measures are wasted to the fact that many individuals are not aware that they are committing a crime by pirating content. Simply educating people on the effects of digital piracy to the economy, their favorite content creators, and the risks it poses themselves, could work greater wonders than spending hours on creating new softwares. Furthermore, making more and more content subscription-based reduces the costs to the users, because they would not have to pay a large amount of money to use certain software. Basic economic principles state that "as the price of a good decreases, quantity demanded increases". The more people who pay for their content, the less people are pirating. This helps everyone involved as creators get paid, and consumers get their high quality content free of risks.

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