

# Guest Lectures

<b>Week</b>	<b>18h00-20h00</b>	
<b>Nov 22</b>	<b>Préposées à la protection des données et transparence</b>	<b>On the use of Google Analytics and SAP</b>
<b>Dec 6</b>	<b>Giorgio Paoletto Patrick Genoud</b>	<b>Administration demain</b> <a href="http://ot.geneve.ch/ot/article.php3?id_article=112">http://ot.geneve.ch/ot/article.php3?id_article=112</a>  <b>Living labs – e-inclusion</b> <a href="http://ot.geneve.ch/ot/article.php3?id_article=110">http://ot.geneve.ch/ot/article.php3?id_article=110</a>

# **Social and Legal Issues in Informatics**

MSc Management – IS and Services Science

## **Intellectual Property**

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# Overview

## Intellectual Property Rights

- Copyright
- Patents
  - ◆ Regular patents
  - ◆ Software patents
  - ◆ Open source software
- Trade marks

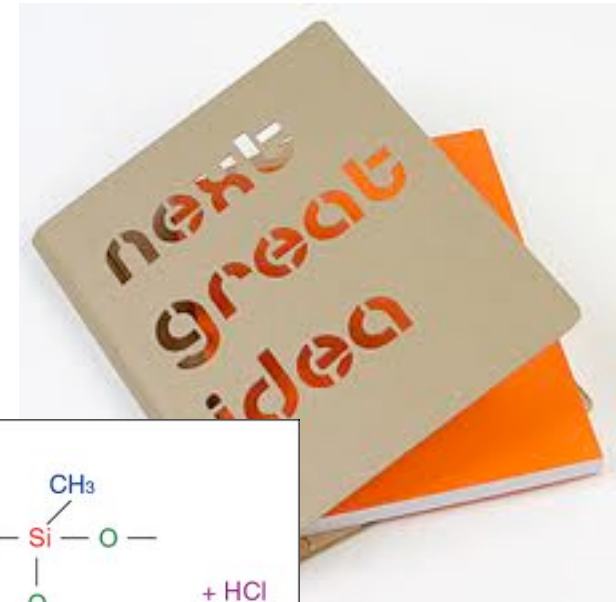
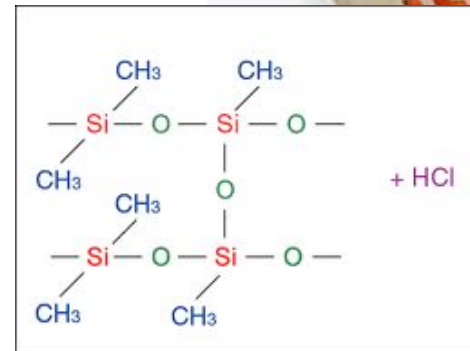
Passing off

Domain names

# Intellectual Property

Intellectual property is **intangible**

- Idea
- Chemical Formula
- Book
- Algorithm
- Software
- .. Any piece of information



I can **steal** your intellectual property by **copying** it or even just **reading** it

- You still have it
- But I can make money with it!
  
- Stealing information/ideas is different from stealing tangible objects
- It is not the same kind of property
  - ◆ Theft of tangible object: subject to laws regarding thefts and damage
  - ◆ Theft of intangible objects: subject to **Intellectual Property Rights**

# Intellectual Property Rights (IPR)

## Intellectual Property Rights

- Various forms
- Protected in various ways

## Types of Intellectual Property

- **Copyright** covers the **right to copy**:
  - ◆ documents, pictures, music and computer programs
- **Patents** protect **inventions**
  - ◆ Formulae, algorithms, ...
- **Trade marks** identify **manufacturers and suppliers**
  - ◆ Product names, product logos

# Intellectual Property Rights (IPR)

**Copyright law** is based on the Berne Convention, 1886 (Revised 1979)

[http://en.wikipedia.org/wiki/Berne\\_Convention\\_for\\_the\\_Protection\\_of\\_Literary\\_and\\_Artistic\\_Works](http://en.wikipedia.org/wiki/Berne_Convention_for_the_Protection_of_Literary_and_Artistic_Works)

<http://www.wipo.int/treaties/en/ip/berne/index.html> (text)

**Trade marks** and **patents** were subject to laws based on the Paris Convention, 1883

<http://www.wipo.int/treaties/en/ip/paris/index.html> (text)

World Intellectual Property Organisation (WIPO)

- UN specialised agency
- Dedicated to develop **international** IP system
- <http://www.wipo.int/>

# Copyright



## Copyright

- Right to copy a piece of work
- Comes into existence once it has been recorded or written down
- No need to register!
  - ◆ Automatic!



# Copyright

Need to be recorded or written down, ...



“A general copyrighted protection of ideas would not only endanger the freedom of science and art, but also impede the whole intellectual life in an intolerable way. Copyright therefore **does not protect pure ideas, concepts, doctrines and theories as such. Only in their tangible form of presentation they become subject of the copyright protection.** For example not the content of quantum theory of Max Planck as such is protected by copyright, but only the version precisely formulated by Planck. Likewise only a concrete cartoon with parodist content may enjoy copyright protection, but not the bare idea to lampoon cultural activities”.

[http://www.copyright.ch/?sub\\_id=32&leng=1](http://www.copyright.ch/?sub_id=32&leng=1)





# Copyright

## Rights of copyright owner/holder:

- Permission of copyright owner is **required** to
  - ◆ **Make copies**
    - Downloading Web pages (even without saving)
    - Copying on RAM
  - ◆ **Give copies** to the public (free or not)
  - ◆ **Adapt** a work
    - including translation to another language
- Permission is generally **implicit** rather than explicit
- These rights **last for 70 years** after the author's death
  
- Examples of copyright holders: authors, successors, collecting societies

# Copyright

There are **no rights against:**

- Using or publishing **identical** work
  - ◆ provided it can be demonstrated it is **not copied**
    - Software algorithms
    - Programmers producing (by chance) same code do not breach copyright
  - ◆ Note: this is different from patent rights

Copyright law **allows**

- One **copy** of software for **backup purposes**
- Program can be decompiled
  - ◆ To find errors
  - ◆ To determine its interface (for interoperability of code purposes)
- Copyright owner can **sell all his rights** to use a program
  - ◆ The original copyright owner cannot keep a copy!

# Transfer of rights

## Transfer of the right to copy

- Copyright is transferable and inheritable

## Licensing and publishing

- Commercialisation of the work (copy)

# Copy medium

## Special case for CDs, DVD, Tapes

- Copyright fee included in the price



# Copyright Infringement

## Primary Infringement

- Breach of the exclusive rights of the owner
  - ◆ Civil prosecutions:
    - Owner claims for damages or injunction to refrain

## Secondary Infringement

- Breach of rights in a **commercial/business** context
  - ◆ Trading pirated software
  - ◆ Using pirated software for commercial purposes
- Leads to criminal prosecutions
  - ◆ Fine, imprisonment, confiscation of copied material, etc.

# Copyright Infringement

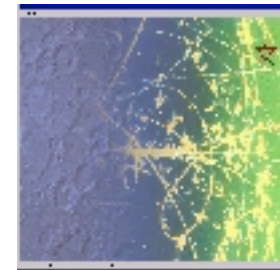


## Digital material

- Come with a protected feature
- The use, sell, production of devices to circumvent that protection
  - ◆ ... infringe the copyright on that work

## Additional protection

- It may be difficult to claim that it is a copy
- Insertion of (in)visible watermarks in pictures, or in any digital information
  - ◆ The watermark is also copied, and when revealed demonstrates the theft



# Licensing



Owners of software usually provide **licenses** for other people

- To use or to sell copyright owner's products (licensing agents)
  - ◆ You don't buy a Microsoft product, you pay a license for using the product
    - <http://www.microsoft.com/licensing/>
- Copyright owner **keeps his rights**

Tailor-made software (bespoke software)

- Company produces a specific software for a customer
- Options:
  - ◆ Customer gets the copyright
    - Potential problems
      - open source software
      - parts of software used for other products
  - ◆ Company keeps the copyright / customer gets a license
    - Problem if maintenance is given to other companies



# Ownership

Copyright generally goes to the author, **unless**

- The author has produced the product as part of his works as an **employee** of a company
- The **employer** then **owns the copyright** of work carried out by employees

If work is done by independent contractor (**freelance**)

- ◆ The independent contractor **is** the copyright owner
- ◆ **Important:** to have a formal agreement about the copyright ownership of work

# Copyright: YouTube and MySpace

## YouTube

- Anyone can post a video
  - ◆ Private, music, movie, etc. posted without owner permission
- Anyone can see it
- <http://www.youtube.com/>

## MySpace

- “Social Networking Interface”
- Venue for people to interact on any subject
- Common spaces for groups
  - ◆ Problem: Exchange of potentially copyright material
- <http://www.myspace.com/>

## Universal attacks YouTube and MySpace

- Loss of money
- <http://www.out-law.com/page-7302>

# YouTube, Google Win Copyright Infringement Case in Spain

By: [Chloe Albanesius](#)

09.23.2010 0 comments

Three months after [YouTube scored a legal victory](#) in its copyright infringement battle with Viacom, the Google-owned video site won a similar fight against Spanish broadcaster Telecinco.

A federal court in Madrid on Thursday dismissed copyright infringement charges against YouTube after Telecinco claimed that YouTube should be held liable when users uploaded its copyrighted material.

The court found that YouTube has sufficient content-protection tools, which remove infringing material. "This means that it is the responsibility of the copyright owner – not YouTube – to identify and tell YouTube when infringing content is on its Web site," Aaron Ferstman, head of communications for YouTube in Europe, the Middle East, and Africa, wrote in a [blog post](#).

Like the Digital Millennium Copyright Act in the U.S., European law says that copyright owners - not service providers like YouTube - are the best people to judge whether a certain work is authorized to be on the Internet, Ferstman said.

"If Internet sites had to screen all videos, photos and text before allowing them on a website, many popular sites – not just YouTube, but Facebook, Twitter, MySpace and others – would grind to a halt," he said.

Ferstman said Google hopes to work with Telecinco in the future "in the spirit of copyright protection, content distribution and new opportunities."

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# Swiss Case

## 18 year old Swiss-Italian girl sentenced for illegal file sharing

January 12th, 2010

In Ticino an 18 y.o. girl was judged and sentenced for illegally sharing her favorite movies (270) and songs (4'200) over the Internet. She did not appeal. The judgment is now into force and is likely to be a major precedent for future cases (jurisprudence). A short TV news brief was aired on January 7, 2010 on Swiss television.

<http://liftlab.com/think/morin/2010/01/12/18-year-old-swiss-italian-girl-sentenced-for-illegal-file-sharing/>

<http://www.tsr.ch/video/#channel=info;vid=11680642;id=1468993> (video)

# Music/Data Download and Sharing

## Allowed

- Downloading of copyrighted data is allowed for the personal use, even if the offered data was illegally uploaded.
- To transmit lawfully copied copyrighted data as long as such transmission happens in the personal sphere and within a circle of persons closely connected to each other, such as relatives or friends
- To upload copyrighted data to a protected area in the Internet (password), to which only persons have access who are personally closely connected to the uploading person (personal use).
- To upload and download music data or song texts, provided that the copyright holder agreed to such use.
- "Music on demand" the provider needs a license for this purpose.
- To burn CD's/DVD's etc. for the own personal use as well as for the purpose of giving them to close relatives or friends.
- Swiss copyright law: [http://www.copyright.ch/?sub\\_id=72&leng=1](http://www.copyright.ch/?sub_id=72&leng=1) 21

# Music/Data Download and Sharing

## Not Allowed

- to upload copyrighted music data or song texts to an area in the Internet freely accessible for everyone
- Without a license from the copyright holder allowing such activity, it is not allowed to copy by transmitting a file to a database freely accessible beyond the private circle
- Without a license from the copyright holder allowing such activity, it is neither allowed to burn CD's/DVD's for their (sale) distribution, nor for the purpose of giving away such CD's/DVD's to persons outside the circle of persons closely connected to each other.
- Swiss copyright law: [http://www.copyright.ch/?sub\\_id=72&leng=1](http://www.copyright.ch/?sub_id=72&leng=1)

# Music/Data Download and Sharing

## Liability

- those who make the legally protected works available on a server accessible over the internet
  - Anyone who controls the content of a website is responsible and must obtain the necessary licenses.
  - Those who indirectly contribute to, tolerate or benefit from a copyright infringement (service providers)
- 
- Swiss copyright law: [http://www.copyright.ch/?sub\\_id=72&leng=1](http://www.copyright.ch/?sub_id=72&leng=1)

# Not covered by copyright

- Artistic shows
- Broadcasting (football, sport)
- Production of music and films
  
- Performance protection (but not copyright)





# Enforcement of Copyright

## Traditional

- Author records his ideas and time of creation

## Digital Rights Management

- No copies or only a limited number of copies are possible

# International Copyright

- Rights which their respective laws grant to their nationals
- Rights specially granted by the Berne Convention

# Copyright Legislation

## Main act

- Copyright, Design and Patents Act, 1988
- Amended by
  - ◆ Copyright (Computer Programs) Regulations, 1992
  - ◆ Copyright and Rights in Databases Regulations, 1997
  - ◆ Copyright and Related Rights Regulations, 2003
- Swiss copyright law
  - ◆ [http://www.wipo.int/clea/docs\\_new/en/ch/ch004en.html](http://www.wipo.int/clea/docs_new/en/ch/ch004en.html)
  - ◆ <http://www.admin.ch/ch/f/rs/2/231.11.fr.pdf>

# Patents



## Patent

- Temporary **right** granted by a **state**
  - ◆ Generally 20 years
- To safeguard an **inventor** from other people **exploiting** their invention without permission
  - ◆ Even if same idea has been produced without being copied!

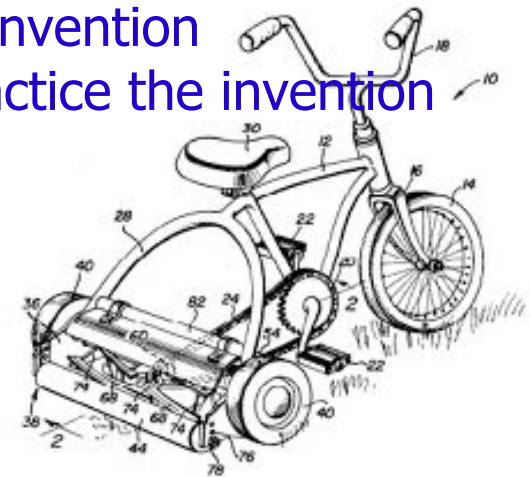
## Patents allow

- Patentee to have monopoly to exploit his invention
- Patentee to ask money for a license to practice the invention

UK Patents Act, 1977

Law For Patents on Inventions, CH

<http://www.patentlaw.ch/>



# Patents

A patent is delivered if an invention is:

- **New**
  - ◆ not previously patented or used publicly
  - ◆ Even by patentee own publications!
  
- Involves an **inventive step**
  - ◆ not obvious
  
- Capable of **industrial application**
  - ◆ need for a practical application
  
- Not in a specifically excluded area

# Excluded Areas

Patents Act, 1977 excludes:

- Scientific theories
- Mathematical methods
- Literary, dramatic, musical or artistic work
- Presentation of information
- Scheme, rule or method for performing a mental act, playing a game or doing business or a program for a computer
  - ◆ However ... there are software patents

# Patent Process

Patents **must be obtained** (unlike copyright)

Granted by national Patent Offices

European Patent Office and (WIPO)

- Simplify the process of obtaining patents in multiple countries

Enforcing a patent is

- Often difficult
- Very expensive
  - ◆ Seriously disadvantages small companies up against multinationals

# Limits of patent protection

- time limit of the patent protection is 20 years beginning from the date of filing.
- limited to the country or countries for which the patent has been filed and is in force.
- the protection is limited to the patented invention.



# Software Patents

## In principle

- Software cannot be patented
- But ...

## US Position

- Patent and Trade Mark Office refused to grant patents on inventions involving software until 1981
- Now, software can be patented if:
  - ◆ Software is part of patentable device
  - ◆ Software controls a process that has some physical effect
  - ◆ Software processes data arising from the physical world

```
ok
@ECHO OFF
title Folder Locker
if exist "Control Panel.{21EC2020-3AEA-1069-A2DD-00002B30309D}" goto UNLOCK
if not exist Locker goto MLOCKER
:CONFIRM
echo Are you sure u want to Lock the folder(Y/N)
set/a "cho=>"
if %cho% == Y goto LOCK
if %cho% == y goto LOCK
if %cho% == n goto END
if %cho% == N goto END
echo Invalid choice.
goto CONFIRM
:LOCK
ren Locker "Control Panel.{21EC2020-3AEA-1069-A2DD-00002B30309D}"
attrib +h +s "Control Panel.{21EC2020-3AEA-1069-A2DD-00002B30309D}"
echo Folder locked
goto End
:UNLOCK
echo Enter password to Unlock folder
set/a "pass=>"
if not %pass% == type your password here goto FAIL
attrib -h -s "Control Panel.{21EC2020-3AEA-1069-A2DD-00002B30309D}"
ren "Control Panel.{21EC2020-3AEA-1069-A2DD-00002B30309D}" Locker
echo Folder Unlocked successfully
goto End
:FAIL
echo Invalid password
goto end
:MLOCKER
md Locker
echo Locker created successfully
goto End
:End
```

# Software Patents

## Europe position

- No clear position!
- Acts say that patent cannot be granted to program, but
  - ◆ European Patent Office grants patents to software since 1988!
- No uniform position among the EU countries
- Consequence
  - ◆ Conflict between law and practice

# Software Patents: A controversial Subject

## Pros:

“It is **unreasonable** to deny a patent on a device because it is partially implemented in software which **if implemented entirely in hardware would be allowed**. Patents encourage investment in research by **creating corporate assets** and hence shareholder value”

## Cons:

“However allowing patents on software would be likely to **restrict innovation by small companies** because of pressure from large ones. Lots of patents on software are not “new” or do not contain “innovative step”. Finally the industry has done fine so far without!”



# Open Source / Free Software

## Open Source Software

- Motivation: high reliability/flexibility
- <http://www.opensource.org/>

## Free Software

- Motivation: Freedom for computer users
- <http://www.fsf.org/>

## Open-source/free software licenses for OSS/FS allow

- Freedom to study / modify the program
- Freedom to redistribute copies of the program
- Freedom to distribute modified version of program
- GNU General Public license
  - ◆ <http://www.gnu.org/copyleft/gpl.html>

# Open Source / Free Software

“When we speak of free software, we are referring to **freedom**, not price. Our General Public Licenses are designed to make sure that you have the **freedom to distribute copies** of free software (and charge for them if you wish), that **you receive source code** or can get it if you want it, that **you can change the software** or **use pieces of it** in new free programs, and that you know you can do these things. (...)

For example, if you distribute copies of such a program, whether gratis or for a fee, **you must pass on to the recipients the same freedoms that you received**. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert **copyright on the software**, and (2) offer you this License giving you **legal permission to copy, distribute and/or modify it.**”

<http://www.gnu.org/copyleft/gpl.html>

# Trade Marks

## Trade Marks

- Any **sign** capable of being **represented graphically**
- Capable of **distinguishing** goods or services from one company from those of another company
- Words, designs, letters, numerals, shape of goods, packaging of goods



## Major businesses

- Have trade marks
- By which they identify
  - ◆ themselves
  - ◆ their products and services



<http://www.trademark.ch/>

# Trade Marks

Trade Marks Act, 1994

## Registration of Trade Marks

- Through the UK Patent Office
    - ◆ Maintains database of registered trade marks and their owners
      - <http://www.patent.gov.uk/tm.htm>
  - Through the Swiss Federal Institute of Intellectual Property
    - ◆ <http://www.ige.ch/>
- 
- A **same** trade mark name can be used for **different categories** of products



# Trade Marks

Trade Marks Act, 1994 made it an offence:

- To use an unauthorised trade mark
  - ◆ Trade mark is registered
  - ◆ You don't have trade mark's owner permission to use it
- To sell goods/packaging bearing an unauthorised trademark
- To import or export goods bearing an unauthorised trademark
- Having, in the course of business, goods bearing an unauthorised trade mark

Prosecutions

- Fines, 2 years imprisonment, financial damage



# Trademark - Limits

## Trademark Protection (not registered)

- Unlimited as long as trademark is used

## Trademark Registration Protection

- Renewable (10 years, US)

## Google not guilty in Vuitton row

**The European Court of Justice has ruled in favour of Google in a dispute with luxury goods maker LVMH.**

The firm is owner of Louis Vuitton, Moët & Chandon champagne, Dior perfume and other brands.

It had claimed that Google's practice of selling keywords in advertising searches to the highest bidder damaged trademark law.



LVMH, Viaticum and Eurochallenges took action against Google

It means that people searching for branded products could also be shown rival brands or counterfeit goods.

Google's Adword service, which allows companies to bid for places in the sponsored listings at the top and to the right of the natural search results generated by a query, is a key source of revenue for the company.

"Google has not infringed trademark law by allowing advertisers to purchase keywords corresponding to their competitors' trademarks," the ruling found.

LVMH said that the ruling clarified the rules of online advertising.

"We want to work with all the players, including Google, to eradicate

# Passing Off



## Passing off

- Imitate the appearance of another (better) product

## Trade marks do not necessarily need to be registered to have some protection

- But trade mark registration is a better protection
  - ◆ involves a criminal offence

## Trade mark

- Effective way of protecting software from piracy
  - ◆ Better to display the trade mark on packaging and when software is loaded
- Pirated software
  - ◆ Distributed on Internet without packaging

# Pirated Software

## International electronics giant caught using pirated software

Published 01 September, 2010, 21:04

 [permalink](#)

 [e-mail story to a friend](#)

 [print version](#)

The Russian division of LG Electronics is facing a lawsuit for bootleg software following a police raid last year.


As it turns out, pirated computer programs in Russia are popular not only with individuals and small companies, but also with big international ones.


An anonymous source told the Russian Ministry of Internal Affairs that LG Electronics is using illegal versions of software produced by Adobe, including Photoshop, Acrobat and other programs.

Adobe confirmed that they were aware of this fact and already asked LG to buy licenses for the software, but that LG failed to do.

The inspection, carried out by the ministry in the LG offices in Moscow, found out that more than 60 employees of the company had been using illegal software. 44 base units and 17 notebooks were confiscated. The damage is now estimated at 2 million rubles (\$66,000), and may still grow.

 Share


 Yahoo

 StumbleUpon

 Google

 Technorati

 del.icio.us

 Digg

 Reddit

 Mixx

Pirated software (video):

<http://rt.com/prime-time/2010-09-01/lg-russia-pirated-software.html>

# Domain Names



## Domain names

- **Hostnames** that provide more **memorable names** to stand in for numeric IP addresses
- Managed by Internet Corporation for Assigned Names and Numbers (ICANN) (.com, .net, .org)
  - ◆ <http://www.icann.org/>
  - ◆ Goal: to ensure **universal resolvability** of Internet addresses
  - ◆ Same domain name always leads to same Internet location
- Respective national organisations (.fr, .ch, .uk)
  - ◆ Foundation SWITCH (<http://www.switch.ch/>)

## Original use of domain names

- Short hand way to find a web site

## Current use

- Domain names are as important as a trademark.
- Regularly feature in advertising and e-commerce.
- Lots of companies use their trade mark name as (part of) their domain name ([www.microsoft.com](http://www.microsoft.com))
- Domain name can be registered as a trademark



# Domain Names

## Problems when

- Two companies want to use the same domain name
- First one to register "wins"

## New form of "passing off"

- When third parties register trade mark names as domain names – **cyber squatting**
- Offer to sell the domain name at original owner but at a very high price

## WIPO, 1999

- ICANN established a Uniform Domain Name Dispute Resolution Policy (UDRP) which includes specific provisions against cyber squatting

## WIPO, 2001

- Extension to include non trademark names
  - ◆ individual people or geographic areas names
  - ◆ Used by people with no connection with the name
  - ◆ Trickier than trademarks (no international framework)

# MTV vs Curry

From: curryco@panix.com (Adam Curry)  
Subject: MTV SUES CURRY  
Date: 10 May 1994 03:44:36 -0400

Last update: May 10 1994

I had planned to keep the following quiet until more information was available, but since several journalists have already caught wind of it, I decided to get it out into the open so my side of the story is heard as well.

The domain I maintain and operate on the Internet, mtv.com was founded approximately one year ago. At that time I registered mtv.com with the InterNIC, purely because it was a cool address to have, and it was available. What a great "vanity plate"!

The site quickly became a frequently accessed "hangout" on the net, with an average of 35000 accesses daily from Mosaic clients alone. During the start up months I had many conversations with executives at MTV Networks about my endeavours, which btw, were all financed out of my own pocket, and vps from MTV Programming as well as Viacom New Media were aware of what I was doing on the internet, and although they stated "MTV has no interest in the internet" they gave me their blessing and supported my efforts.

This was enforced when I set up several email accounts on mtv.com for use in MTV's on-air programming. Ever since the summer of '93, popquiz@mtv.com was used for trivia quiz questions, that were then aired on MTV's "Most Wanted" a program I hosted at the time. Solicitations were made on the air, and the address was shown on the screen. For MTV's annual Valentines video dedications, viewers were offered the choice of calling in their dedications, or sending them via email to elove@mtv.com.


<http://www.lectlaw.com/files/inp10.htm>


# Jay Leno wins cybersquatting case



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GENEVA | Thu Jul 2, 2009 12:25pm EDT

(Reuters) - Comedian and talk show host Jay Leno has won a cybersquatting case against a Texas man found by a U.N. agency to have misused the domain name thejaylenoshow.com to direct Internet

<http://www.lectlaw.com/files/inp10.htm>



# References - Links

- <http://www.copyright.ch/>
- <http://www.patentlaw.ch/>
- <http://www.trademark.ch>
  
- Swiss Federal Institute of Intellectual Property (IGE)
- <https://www.ige.ch/>
  
- WIPO
- <http://www.wipo.int/>
  
- EU directives
  - [http://en.wikipedia.org/wiki/List\\_of\\_European\\_Union\\_directives](http://en.wikipedia.org/wiki/List_of_European_Union_directives)