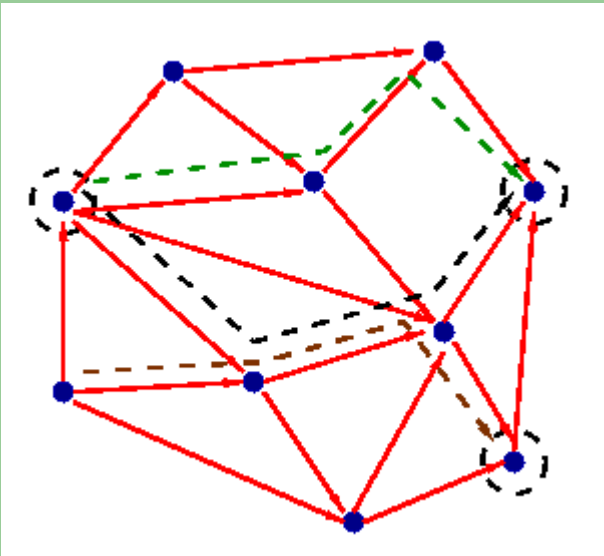


# Legal aspects in access to the Internet



**E. Altman**

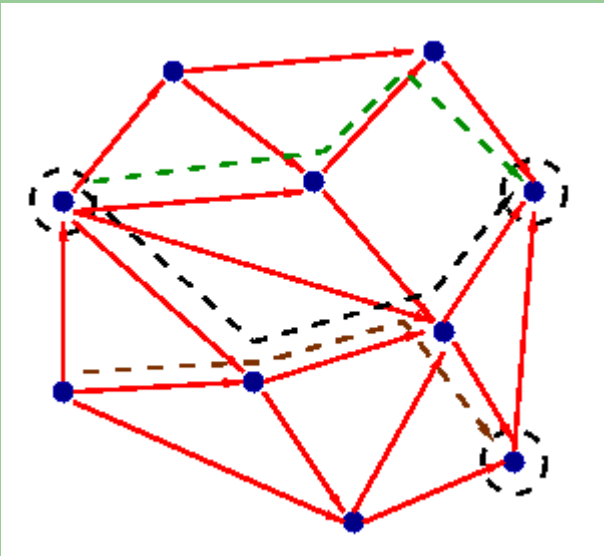
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# P2P Ntks: Interplay between Law and Technology



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# Motivation of our work

## The role of researchers in society

- We are involved in a huge research effort on designing and improving P2P networks
- These protocols include incentives for sharing our contents with others
- From a legal point of view this is the worst behavior (worse than downloading illegally)

**Should we continue designing P2P networks?  
Or should we start developing filters for  
detecting illegal downloads?**

# Legal Background

Conflict between two legislation approaches to copyright infringement, both aiming at protecting copyright holders:

- **Confrontation Approach:**

Actions to decrease the offer of and demand for unauthorized content

- **Cooperative Approach:**

Install a tax for the right to access unauthorized music or films. Revenues would go to copyright holders

# Confrontation Approach

## Three Strikes Law: Graduated Response:

Adopted in France on summer 2009 [Hadopi] consists of warning mechanism prior to the establishment of sanctions.

- An email is first sent to the infringer reminding the subscriber of his monitoring duty
- If the behavior does not change, a second warning is sent via registered mail for purposes of legal evidence.
- If the warnings are ignored, sanctions, that may include fines and suspension of the Internet service are applied.

Initial version of the law: an administrative authority decides on the sanctions.

# Hadopi 3 strikes Law in France

- Hadopi restricted various types of access to the Internet:
  - Content limitations
  - Disconnecting Subscribers
  - Global connectivity to the Internet when roaming

Ethic behind confrontation approach: unauthorized download music should be regarded as stealing a CD in a shop

# Confrontation approach: Historical background

- On 1984, US Supreme Court rejected the movie industry's attempt to bar Sony from manufacturing video recorders, siding in favor of the development of technologies that are capable of substantial non-infringement uses
- In 1999, the DVD Copy Control Association (DVD CCA) took action to prevent the distribution of software [MP3] which, if used, would enable individuals to play digital video disks (DVDs) without technological restrictions such as practical limitation codes imposed by their owners - movie proprietors
- The Court of Appeal for the ruled that the defendants are not required to refrain from the Internet publication of such software.

## Why study alternative strategies

- Around half of Internet traffic is due to P2P – that's a great economic factor for ISPs. Allows them to sell expensive subscriptions with fast access.
- Challenge: can we find a way to benefit from this huge demand rather than spend resources to destroy it?
- Recent Dutch report: Illegal downloads do not decrease expenditure on music. Positive externality as an opportunity for sampling



# Cooperative Approach

## Generalized Liscence

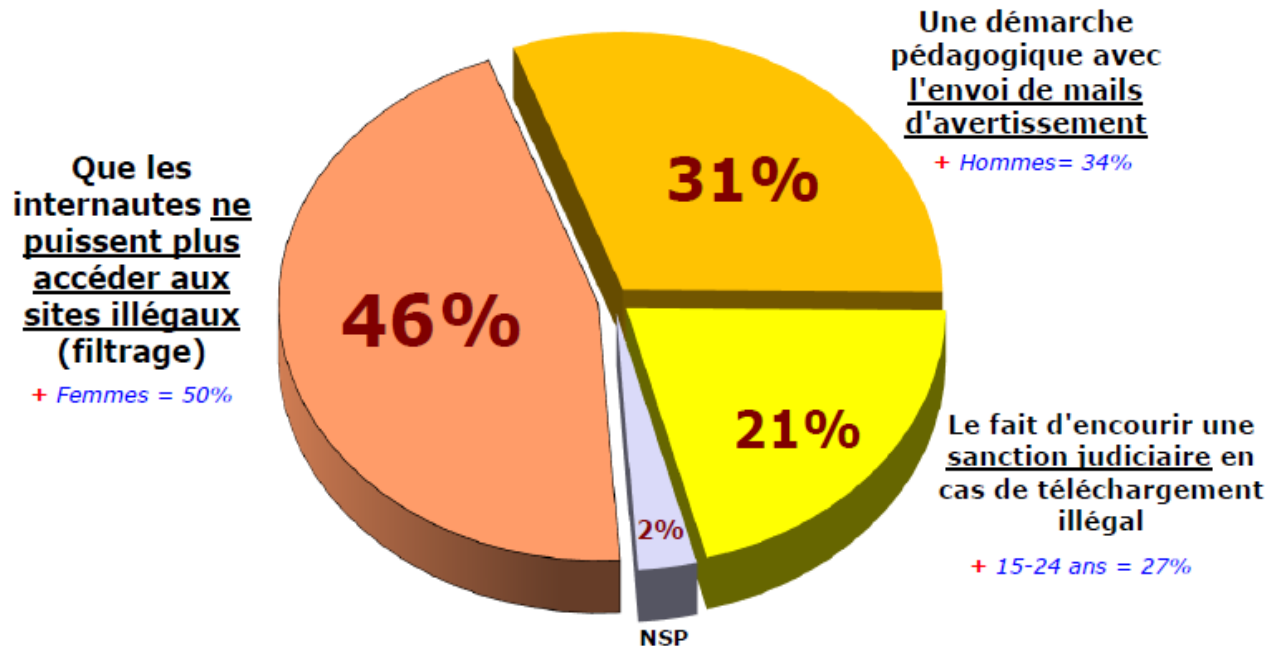
Official reasons that the French government provides to reject the last alternative are

- (i) it would increase subscription fees substantially which would reduce the access to the Internet,
- (ii) it endangers the existence of French creation, it would not be able to compete against American producers
- (iii) it would require surveillance measures,
- (iv) it is not clear how to redistribute the tax.

# Moyen le plus efficace pour lutter contre le téléchargement illégal de contenus sur Internet

*Question: Parmi les 3 moyens suivants, quel est selon vous le plus efficace pour lutter contre le téléchargement illégal de contenus sur Internet ?*

*(Base : Ensemble = 1058 ind.)*



+ Ecarts significatifs positifs à 95% par rapport à l'ensemble



# Internet: more than a network?

- The Constitutional Council rejected part of the HADOPI Act citing the Declaration of the Rights of Man and the Citizen 1789
- There was no Internet in 1789.
- What is the role of Internet in today's society?
- Why is it associated with the Human Rights Declaration?

# Internet and Freedom of Speech

The Constitutional Court states the relation to the Declaration of Human Rights:

- the “free communication of ideas and opinions is one of the most precious of the rights of man”.

The court states that Internet is a **powerful tool in the exercise of the freedom of speech** and only a court can restrict a fundamental right.

## Other References for the role of the Internet

Several Basic Human Rights Documents with similar content:

- the Virginia Declaration of Rights 1776,
- the US Declaration of Independence 1776
- Declaration of the Rights of Man and of the Citizen 1789.

French and American constitutional texts insert the principles considered in the declarations

- Universal Declaration of Human Rights 1948

# References to the documents

Art. 10. 1 of the Charter of Fundamental Rights of the European Union:

- The freedom that Internet allows should not be subject to "interference by public authority", neither by the application of **limits to access** nor by **content control**.

The Spanish Senate [9 Dec 1999] recognized that all people have a fundamental right to **access the Internet**, without any discrimination. As freedom is an inherent condition to the Internet, it admitted the principle that no power can restrict this freedom and that its limits can only come from the Declaration of Human Rights.

# The Internet as a tool for freedom of speech

Article 19 of the **Universal Declaration of Human Rights** reminds all states [1948] that

freedom of speech “includes freedom

- to hold opinions without interference and
- to seek, receive and impart information and ideas through **any media and regardless of frontiers.**”

In the same line, Art. 19.2 of the International Covenant on Civil and Political Rights expresses that

“Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through **any other media of his choice.**”

# Child protection and Internet access

- The first amendment of the US Constitution prohibits Congress to pass laws that abridge the freedom of speech or press. Nonetheless, in 1996 the USA Congress approved the *Communications Decency Act* (CDA) to protect minors through restriction on the Internet
- The *American Civil Rights Union* (ACLU) filed a civil action against the CDA.
- The decision of the Special Three-Judge Panel in *ACLU, et al v. Reno* (3/22/1996) declared the CDA unconstitutional, as “the Internet deserves the highest protection from governmental intrusion.”  
“Parents can supervise their children’s use of the Internet or deny their children the opportunity to participate in the medium until they reach an appropriate age”

The Supreme Court upheld the lower court judgement

- “The interest in encouraging freedom of expression in a democratic society outweighs any theoretical but unproven benefit of censorship”

A more restrictive version was later accepted.



# What do we work on

1. Mathematical Analysis of the impact of measures against illegal downloads [R1]
2. Economic analysis of alternative approaches [R2]

Example for an alternative approach:

Virgin announced, in collaboration with Universal and Vivendi, the establishment of a free access to music (2009) for its clients.  
Then abandoned the project.

# Sampling

- Experience goods [Nelson:1970] identify assets that need to be consumed before knowing their satisfaction level.
- Consumers make an initial selection based on information from indirect sources and will continue testing until the cost of a new trial exceeds the expected growth in satisfaction.
- Peitz and Waelbroeck [2004], assuming that music is an experience good, argue that P2P networks offer the possibility of sampling in music. In their basic model the benefits obtained by the CPI can be increased due to a more informed consumer which would be willing to pay more for albums he really wants to buy.
- In an extended model, profits will grow even with lower prices of the albums, thanks to savings the CPI would have in costs of marketing and promotion.

## Ex of an alternative approach:

# Pricing the Internet using Shapely value

- Shapley's value is an approach for sharing profits. An agent receives according to the contribution of his presence to the additional profits of other agents..

Ken Binmore, game theorist specialist, writes: *"I was once summoned urgently to London to explain what the French government was talking about when it suggested that the costs of a proposed tunnel under the English Channel be allocated to countries in the European Union using the Shapley value"*

# Splitting profits in legal P2Ps

Virgin Music  
Illimited, June 2009  
Legal P2P

V Misra et al proposed to use Shapley value for pricing the Internet [R3]

- In a legal P2P the content producer (CP) creates and supplies the contents and hence the revenues for the ISPs.
- The ISPs should share their benefits with the CPs
- When the content is stocked in illegal P2P networks, the peers rather than the CPs supply the content. The content originates from the subscribers of the ISPs.
- Shapley's value approach thus encourages CPs to offer open access to music.

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# Net Neutrality

## **Economic model: 4 major actors**

- Service providers
- Content providers
- Internauts
- Advertisement

## Network Neutrality (NN)

- Network neutrality is an approach to providing network access without unfair discrimination among applications, content, nor the specific source of traffic.
- What is discrimination and what is fair discrimination?
- If there are two applications or two services or two providers that require the same network resources and one is offered better quality of service (shorter delays, higher transmission capacity, etc.) then there is a discrimination.
- When is a discrimination “fair”? A preferential treatment of traffic is considered fair as long as the preference is left for the user

# NN in Europe

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- Directive 2002/22/EC of the European Union established the access to the Internet as a universal service,
- Universal service: a global service guaranteed to all end users, regardless of their geographical location, at reasonable quality and reliability and at affordable price.
- The Ministry of Transport and Communication of Finland has passed a Decree in October 2009 that goes beyond the recognition of the right for Internet access: it guarantees the right for broadband Internet connection as an universal service.



# NN, Universal services and QoS

In [1], ARCEP (the French regulation body of Electronic Communications Markets) proposes six general policy directions for the network neutrality policy. The third one concerns quality of service and it is summarized by: "3rd direction: A connection to the Internet must be provided with a sufficient and transparent quality of service. To guarantee this, the Authority is launching sector-specific efforts to qualify the minimum quality of service parameters for Internet access, and is working to implement specific indicators."

....

"End users must be contractually informed of the technical properties of their Internet access, so that they can know the resources that have been assigned to them and the performance they can expect under "normal conditions" (i.e. "best effort" operations)... Work also needs to be done on the contribution of other players in the equation (ISPs<sup>1</sup>, equipment manufacturers, software providers, etc.)".

# Incentives for the infrastructure

This problem has been resolved in the European Union when Internet access was declared as a universal service. Indeed, there are several possible ways to finance the cost of Providing communications services to all end-users

The Universal Service Directive **allows providers to be compensated either from public funds or through a cost-sharing arrangement between providers** if it is demonstrated that by complying with the universal service obligations they incur a loss or suffer net costs that exceed normal commercial standards [3]. The latter reference further says: "Member States are free to go beyond the minimum requirements laid down in the Directive, the only stipulation being that any **additional obligation cannot be funded by a levy on telecom providers.**"