



# Electronic Commerce and Copyright.



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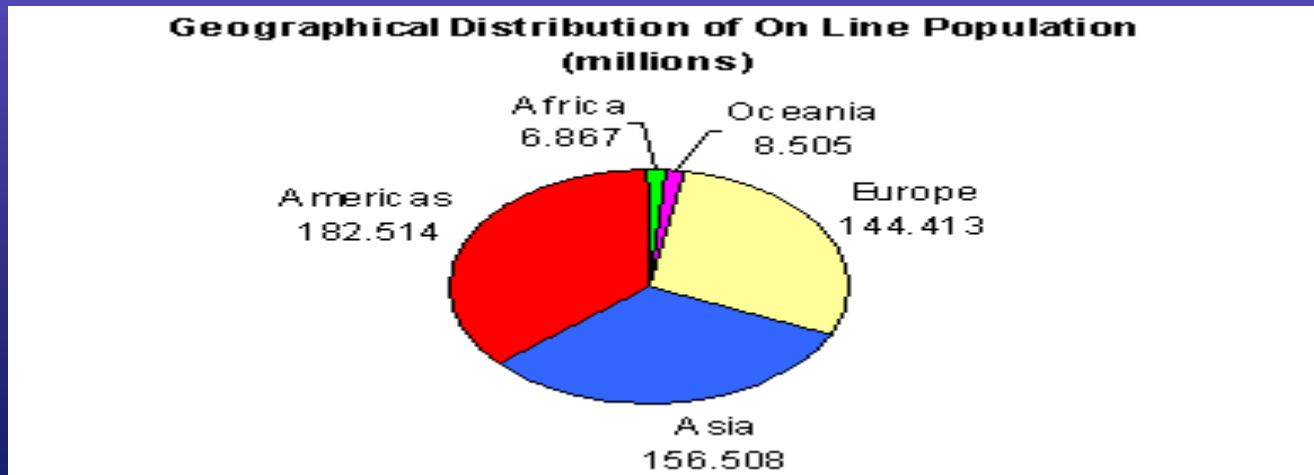


# *Challenges for Electronic Commerce*

- ❑ Global development and the Digital Divide (political challenges)
  - ❑ The impact of digital technologies on the exploitation of copyright content: new business models (economic challenges)
  - ❑ Legal challenges: Internet Treaties, DRM, etc
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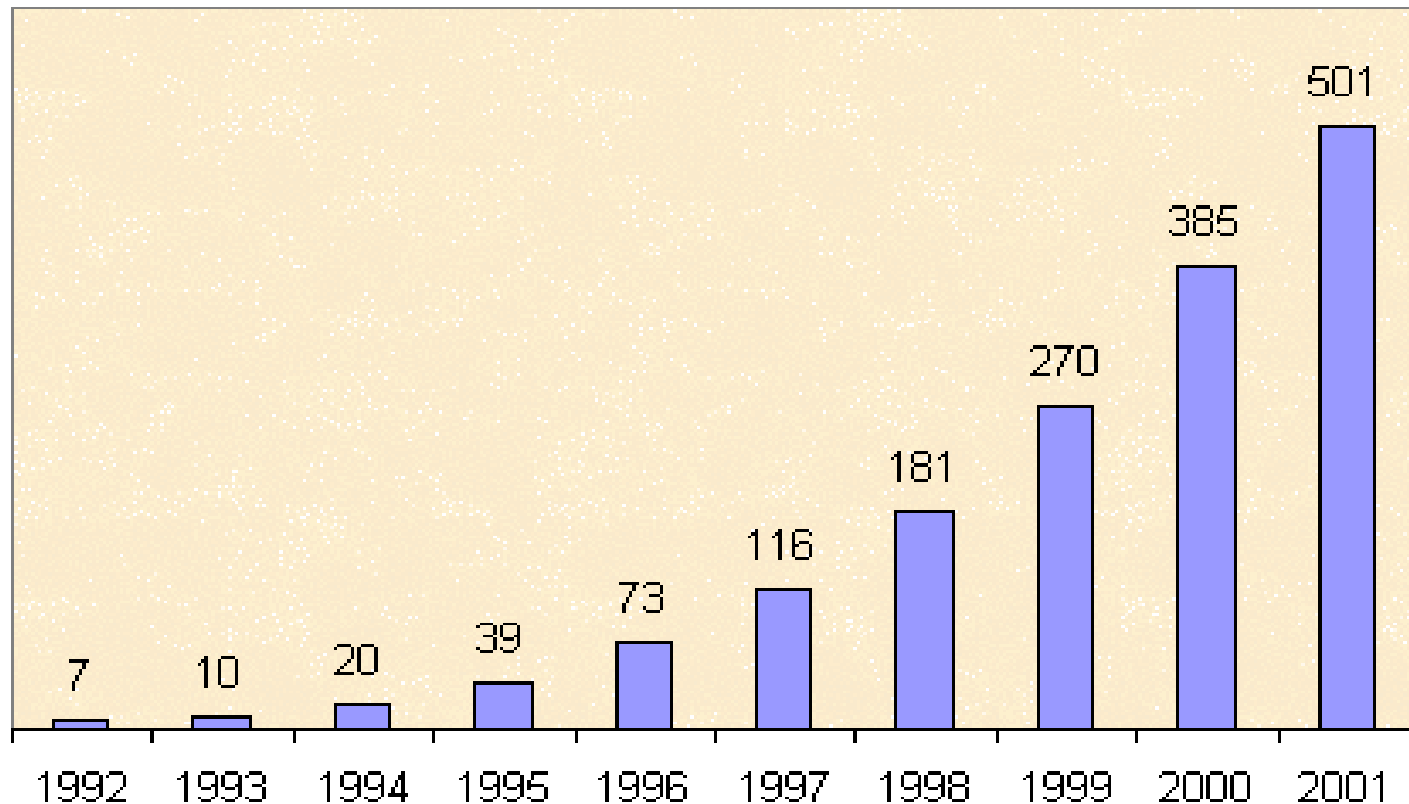
# Political Challenges

- ❑ Global development
  - Digital Divide:
    - Out of a global population of 6 billion people, only 6% are connected
    - Least Developed Countries (LDC ) 10.6% of the world population. 0.3% of Internet Users.
  - Challenges: Infrastructure, education, legal framework.



# *Global Development*

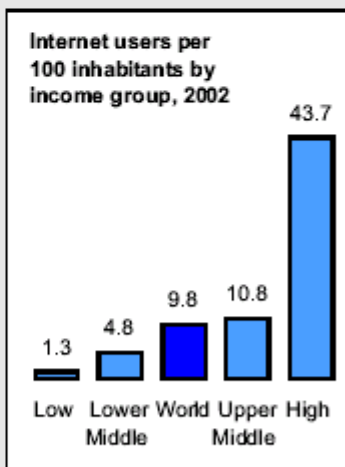
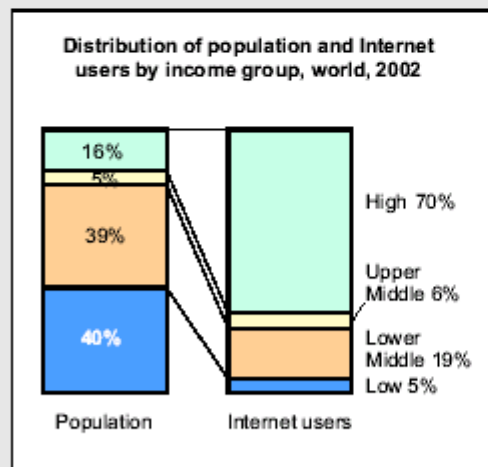
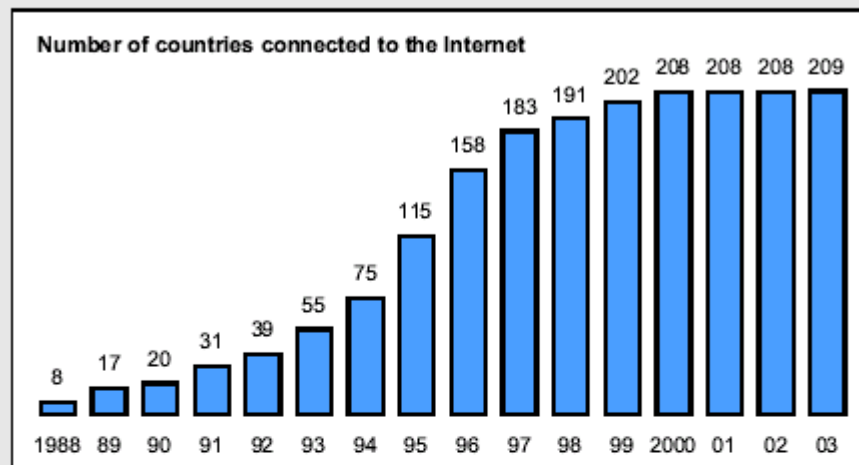
**Internet Users in the world (millions)**



Source: World Telecommunication Development Report, ITU, March 2002

**Figure 1.1: All online, but a big divide**

Number of countries with a direct connection to the Internet 1988-2003, and distribution and penetration of world population and Internet users by income group, 2002

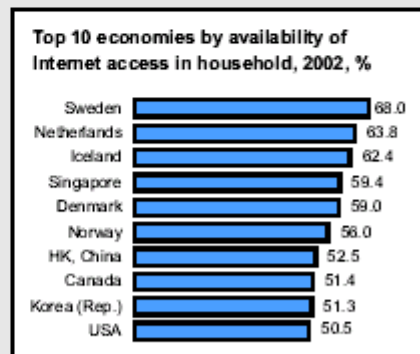
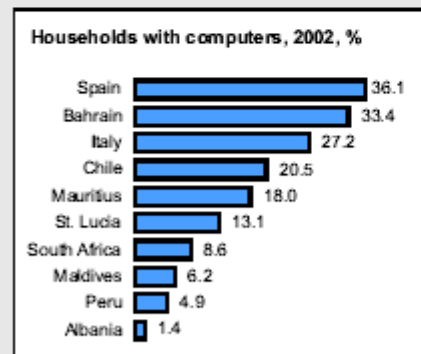
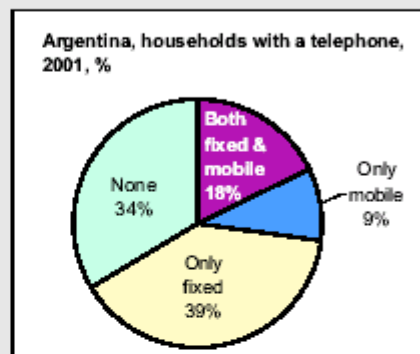
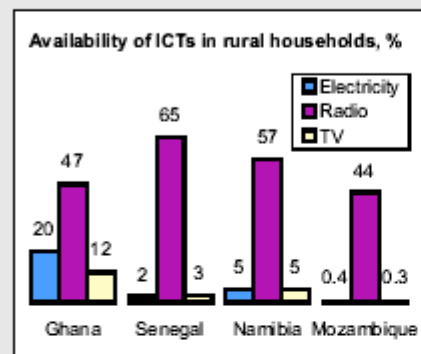


*Note:* The US National Science Foundation Network (NSFNet), the Internet's first backbone, began accepting connections from overseas in 1998. Between 2000 and 2002, no new economies connected to the Internet. In September 2003, the Pacific island of Tokelau became the latest to connect to the global Internet.

*Source:* ITU World Telecommunication Indicators Database.

**Figure 2.2: ICTs in the home**

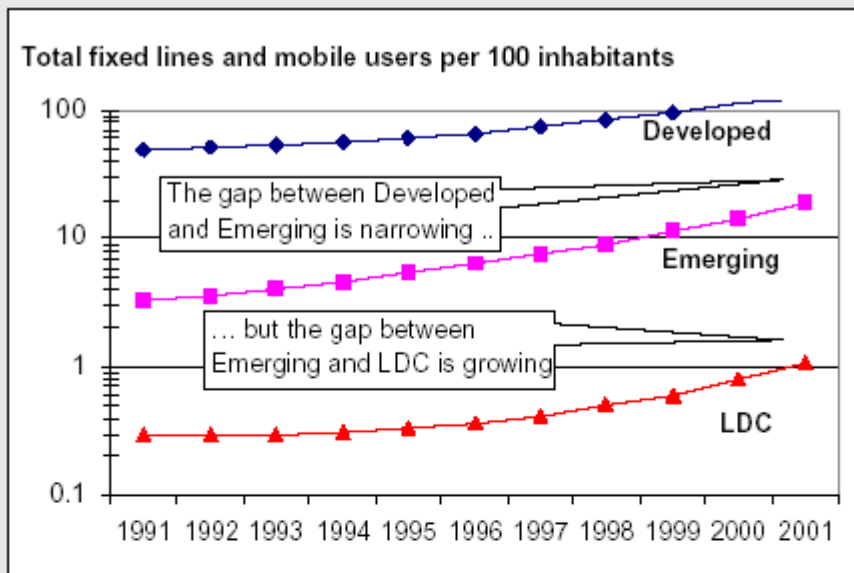
Rural households with electricity, radio and television, per cent, various years, selected African countries (top left); households with mobile and fixed telephones, per cent, Argentina, 2001 (top right); households with computers, selected countries, 2002 (bottom left); and top ten countries by households with Internet access from the home, 2002, per cent (bottom right)



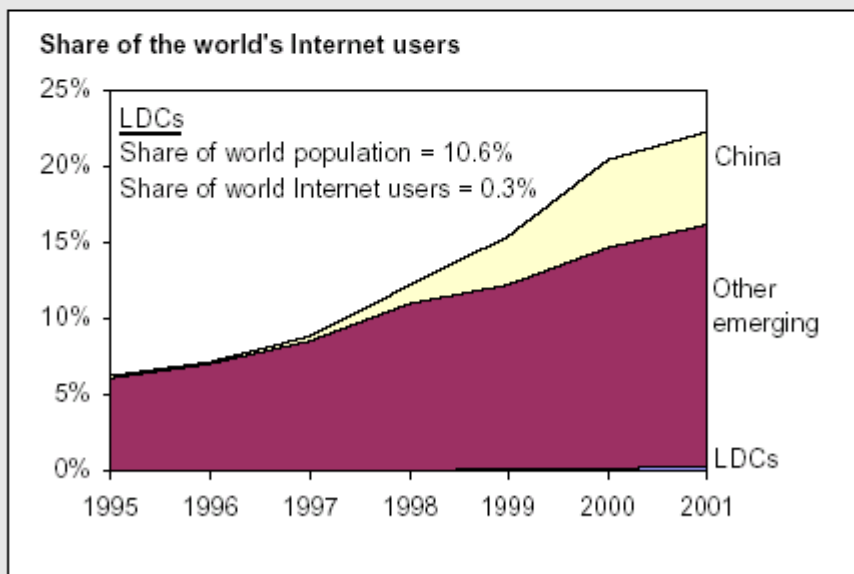
*Note:* Data for Iceland and USA refer to 2001. Data for Sweden and Norway derived from population with access to Internet in the home.

*Source:* ITU adapted from national statistical offices.

**Box Figure 1: The telephone gap shrinks ...**



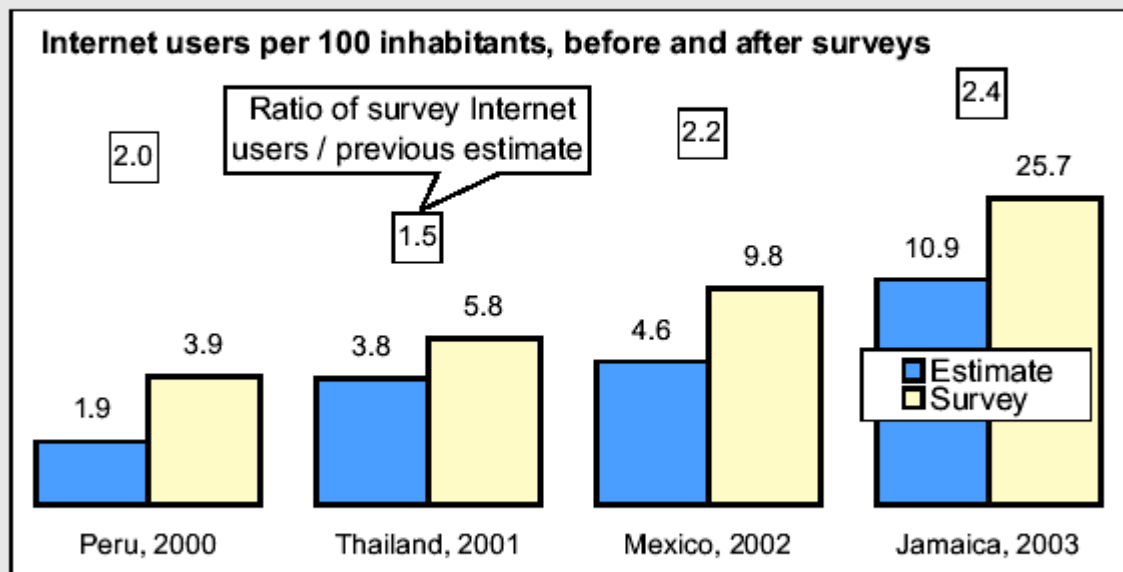
**But the Internet gap grows ...**



*Note:* Top chart is logarithmic. Developed refers to the European Union, Iceland, Norway, Switzerland, Canada, United States, Japan, Australia, New Zealand, Hong Kong SAR, the Republic of Korea, Singapore and Taiwan-China. LDC refers to the 49 least developed

**Figure 2.3: The shrinking Digital Divide?**

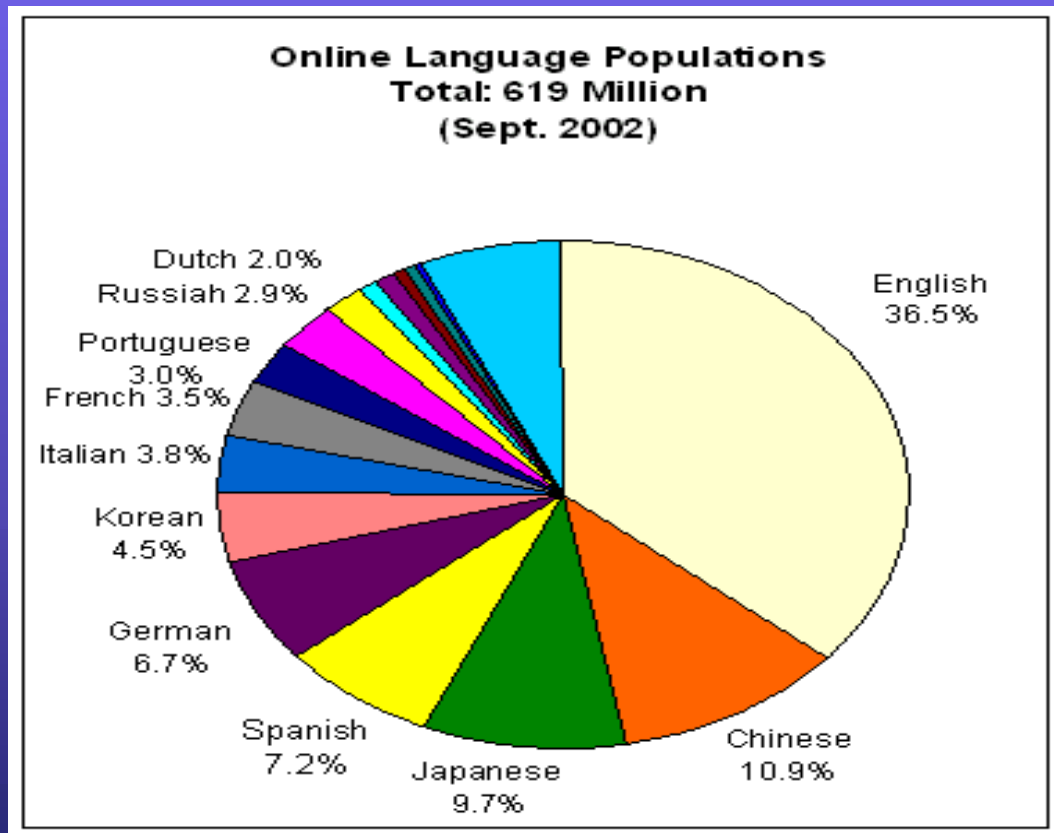
*Internet users per 100 inhabitants in Peru, Thailand, Mexico and Jamaica*



*Source:* ITU adapted from OSIPTEL, INEI, NECTEC, COFETEL and JAMPRO.




# Language Distribution





# *The Challenges of Digitization*

- ❑ Copyright is perfectly adapted to the Digital realm
  - ❑ Works IP - Immaterial Goods
    - Perfect copies in unlimited number, instantly made. Easy and inexpensive making of copies
    - Global distribution. Ability for further dissemination of copies in large numbers instantaneously
    - Risks: world scale piracy: music, films
- 



## *Two Types of E-Commerce*

A) Payment and Transfer of goods and services through the net (iTunes)

B) Transfer of goods and services outside the net.

( [www.amazon.com](http://www.amazon.com)).




# *Contribution of copyright industries to the national economy*

- ❑ Argentina: **6.6%** of the GDP in 1993
- ❑ Brazil: **6.7%** of the GDP in 1998
- ❑ European Communities Member States: between **5 and 7%** of the GNP (estimated in 1996)
- ❑ Japan: **2.3%** of the GDP in terms of value added in fiscal 1998
- ❑ US: **5.24%** of the GDP in 200 (core copyright industries)



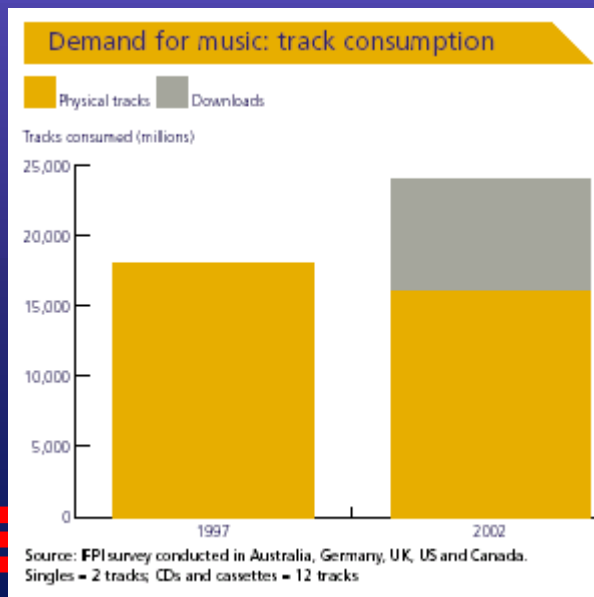
## *Employment*

- ❑ US: 3.5% of the workforce in 2001
  - ❑ Finland: 3.98% of the workforce in 1997
  - ❑ Australia: 3.8% of the workforce in 2000
  - ❑ The Netherlands: one out of eighteen employees (5.5%) working in the copyright industry
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# Music on Line.

2003 was the break-through year for online music services:

- the number of Americans who have paid for downloads doubled from 8% to 16% over the first half of 2003.
- The total catalogue of different songs available to US consumers across the various services was between 400,000 and 500,000 tracks.
- online services in Europe reached over half a million people across all services.



**Aggregated online indicators for Europe**

	End Q3 2003	End Q4 2003
Registered users	380,000	450,000
Tracks available (flexible use)	210,000	275,000
Tracks downloaded (monthly average)	220,000	300,000

Source: OD2

# The reasons for expansion.

- Increasing broad band penetration, specially in Europe.

- Business models offering both subscription and à-la carte options with a range of single track downloads, album downloads, track streaming and customized streaming services, are thriving in the US and now growing in Europe. There has been a clear trend so far from the predominant subscription model to the à-la-carte model - the simple format pioneered by iTunes. Portability as opposed to PC based and downloading as opposed to streaming are also part of that trend.

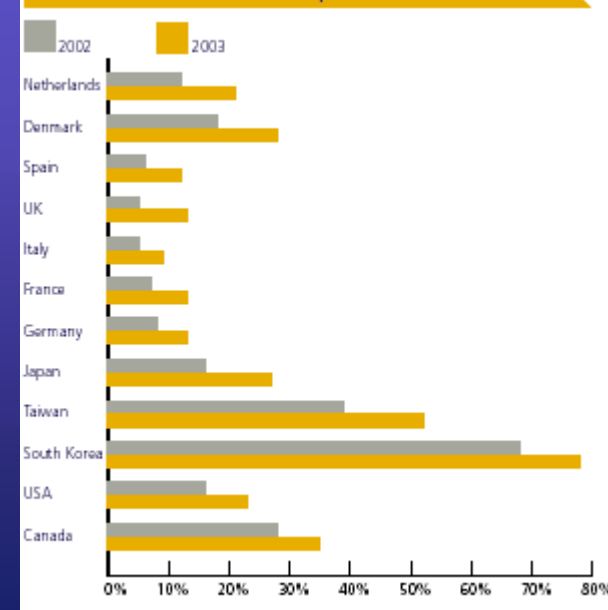
- The industry is simplifying substantially the licensing of internet music

- More and more consumers are ready to pay for Internet music

Major services' business models

Service	Core Offer	Payment Method	Unique Offering
iTunes	à-la-carte downloads	pay per song, music allowance accounts, gift certificates sold at iTunes and Apple Stores	audiobooks, share music samples via email, exclusive tracks and on-demand videos, customised playlists, transfer to portable player (iPod)
Napster 2.0	track streaming, customised streaming, à-la-carte downloads	monthly subscription for Napster Premium, pay per song, Napster Card sold at over 14,000 retailers	playlist recommendations and sharing, exclusive material (on-demand videos, free online music magazine, exclusive tracks, in-studio performances), transfer to portable player
Rhapsody	track streaming, customised streaming	monthly subscription, with additional charge for CD burning	access music from any PC
MusicMatch	track streaming, customised streaming, à-la-carte downloads	one-off fee for MusicMatch Jukebox Plus, pay per song thereafter	transfer to portable players, personalise CD package, new music recommendations based on customer playlist
OD2 (branded by HMV, Fnac, MSN, etc.)	track streaming, à-la-carte downloads	pre-payment credits (activities such as downloads and streams have different credit value), pay per song, subscription	discounts for products paid with credits, transfer to portable player, news and special features with artists

Household broadband penetration



Source: Understanding & Solutions

# Changing music consumption: Options Available

- > À-la-carte download - most services allow users to pay a single fee for one song, which they download to their PC hard drive or to a portable music player.
- > Tethered download - these allow consumers to 'rent' tracks for a given period of time. These tracks are non-transferable to portable music players, but sit on the consumers' PC hard drive until they 'time-out' or the subscription ends. A good way for consumers to preview songs before they decide to buy.
- > Download an album - enables consumers to pay a single fee for one album.
- > Download a bundle - some services enable consumers to download a 'playlist' that has been suggested by other consumers, or perhaps the artist. Such 'bundles' may also include video content or artwork/photography.
- > Streaming - allows the consumer to listen to a song once and is very low cost. Streaming is ideal for listening to exactly what you want without having to pay to own a copy of the song.
- > Customized streaming - these services offer subscribers the ability to compile their own program of tracks based on their favorite genre, artist, or choose an already compiled program.


# *Legal Challenges*

- ❑ Implementation of the International Legal Framework : WIPO “Internet Treaties” : WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT).
  - ❑ DRM
  - ❑ Pending Issues: International Private Law, Liability of ISPs
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# *Internet Treaties.*

- ❑ Adopted in December 1996.
  - ❑ WCT and WPPT : entered into force on March 6, 2002, and May 20, 2002, respectively
  - ❑ 43 parties to the WCT and 42 to the WPPT
  - ❑ Adaptation of copyright to the digital environment regarding rights, limitations to copyright and technologies
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# *Main Elements*

## *1. Rights*

### ➤ **Reproduction Right**

- The reproduction right fully applies in the digital environment, in particular to the use of works in digital form.
- ❑ It is understood that the storage of a protected work in digital form in an electronic medium constitutes a reproduction
  - exception to allow certain acts of temporary reproduction, which are transient or incidental reproductions, forming an integral and essential part of a technological process and carried out for the sole purpose of enabling either efficient transmission in a network between third parties by an intermediary, or a lawful use of a work or other subject-matter to be made( browsing, caching)


➤ **Right of Making available to the public** (Interactive on-demand transmissions.)





## 2. *Digital Balance*

### Limitations and Exceptions


- ❑ The Internet Treaties permit to carry forward and appropriately extend into the digital environment limitations and exceptions in national laws which have been considered acceptable,
  - ❑ and to devise new exceptions and limitations that are appropriate in the digital network environment
  - ❑ Conditions: Any limitations of or exceptions to rights should be 1) limited to certain special cases 2) that do not conflict with a normal exploitation of the work and 3) do not unreasonably prejudice the legitimate interests of the author (Example: communication to the public in libraries)
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# *Technological adjuncts to copyright: Digital Rights Management.*

1 **Technological Protection Measures:** adequate legal protection against the circumvention of effective technological measures that restrict acts which are not authorized by the authors concerned or permitted by law


2. **Protection of Rights Management Information:** information which identifies the work, the author of the work, the owner of any right in the work, or information about the terms and conditions of use of the work, and any numbers or codes that represent such information, when any of these items of information is attached to a copy of a work or appears in connection with the communication of a work to the public.





# *Digital Rights Management (DRM)*

## *Main Issues:*

- ❑ 1-Compatibility between DRM and limitations.
  - ❑ - DRM enabling authorized uses
  - ❑ -Dispute Management
  - ❑ 2- Private Copying and DRM. Need to take into account copy- protection measures.
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# *DRM (Suite)*

- ❑ 3- Role for Public Authorities:
  - ❑ - To regulate application of a DRM in a given case. E.g. Distance Learning in the US ( US Teach Act 2002)
  - ❑ - Dispute management Resolution
  - ❑ Promoting standardization and interoperability
  - ❑ Promoting open negotiations with all different interested parties (copyright owners, hardware and software manufacturers, telecom industry, etc E.g. EU DRM Workshops)
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# Pending Issues

- ❑ 1- Applicable Law and Jurisdiction.
- ❑ 2-DRM enhancing “public interest” access to content.
- ❑ 3-Liability of Internet service providers.
  - The mere provision of physical facilities for enabling or making a communication does not in itself amount to communication.
  - Exemptions include, under a number of conditions:
    - mere conduit
    - caching
    - web hosting
    - Hyperlinks (DMCA, not in the Copyright Directive)

*Thanks*

