

# Competitive Services for the Delivery of Digital Content

Leonardo Chiariglione – CEDEO.net  
*Competitive Platforms  
for the Delivery of Digital Content*  
Genève, CH – 2007/06/14



# Everything changes – nothing is stable

- In the *old* content business **delivering content** is the bottleneck
  - Scarcity dictates the rules of business because getting content to end users is costly
- Digital technologies change everything
  - More capacity in existing delivery systems
  - New delivery systems pop up every other day
- In the *new* business of content **making content** is the bottleneck
  - Abundance dictates the rules of business because people can get everything from everywhere

# Coping with the new

- If the present is hostile turn the clock back
  - Artificial scarcity via DRM – use of content by rules
  - Flow restriction via proprietary DRM – use of content by device
  - Legal framework to criminalise non-conforming behaviour
- Users
  - Consumers: cope by becoming P2P adepts
  - Creators: cope by flooding the world with UGC
- Unfortunate because we are
  - Suppressing drive to create
  - Forfeiting opportunities offered by digital technologies

# Hard choices

- Trying to turn the clock back is futile
  - People are accustomed to abundance
  - A “visible” DRM is rejected by users
  - Treating customers as criminals does not pay
- What remains if content has no intrinsic value
  - Society driven by Menthos in Coca Cola?
  - Worth of content = ability to carry ads?
  - Intermediary the only one profiting from creations?
- The three “respect”
  - Respect creators and their creations
  - Respect intermediaries and their roles
  - Respect end users and their privacy

# Digital Rights Management

- DRM is good words turned into a curse, but
  - Digital: it's the digital age, right?
  - Rights: there are rights in the Information Society, or not?
  - Management: would you let me manage my rights?
- DRM is about providing the means for people to manage their rights using digital technologies
- The problem: by managing my rights I can affect your rights
  - Especially when all these "rights" are far from being unambiguously defined

# “Good” and “bad” examples of DRM

- I send my credit card data over SSL
- I send my daughter’s pictures to a group of friends
- I distribute my novel with the digital version of a Creative Commons licence
- I sell my DVD with zero region code
- I sell my DVD with a non-zero region code
- I broadcast my content as pay TV on DTT in Italy
- I sell my songs on the web in encrypted form
- ...

# The demand for interoperability

- Two opposing views
  - Because it's digital it should let people do less
  - Because it's digital it should let people do more
- The new discovery: once they have got the music consumers want to play it where they want :-)
- Two modern ways to solve an old problem
  - A legal approach: punish success
    - A successful proprietary DRM is forced to open up
  - A technical approach
    - Make a conversion system between any proprietary DRMs
- The old way: the KISS principle (Keep It Simple, Stupid)
  - User behaviour innovation is not easy because technology innovation is easy
  - Technology is complex but humans are much more complex
  - Systems should be simple (or appear to be simple)

# DRM is a good vehicle to do business with content, but it should...

- Be simple
- Not be intrusive
- Enhance, not upset the user experience
- Allow third parties to plug in their services
- Be standards-based
- Be flexible to design, build and operate value chains
- Be implemented as Open Source Software
- Be available as a technology platform
- Be inexpensive



# A Dream?

- Actually no, all the above exists ☺
  - The standards are provided by MPEG-21
  - The platform is provided by the Interoperable DRM Platform of the Digital Media Project (DMP)
    - A toolkit!
  - The OSS is provided by Chillout of the DMP
    - Released under Mozilla Public Licence v.1.1
    - Catered for by an international community
- We must win heart and mind of end users because they
  - Have been abused for a decade
  - Have to feel like being part of the system

# An implementation: Digital Media in Italia (dmin.it)

- **dmin.it proposes** actions designed to maximise the flow of digital media, bearing in mind that
  - Creators and end users seek freedom of access
  - Intermediaries seek freedom of technology choices
- The general recipe
  - An operator may utilise both interoperable and proprietary technologies
  - Creators and end-users may access proprietary *or* interoperable services at their discretion
- For three different areas:
  - Digital rights management
  - Network access
  - Payment systems

# Interoperable DRM (iDRM)

1. A national iDRM specification is adopted that is
  1. Public
  2. Implemented as Open Source Software (OSS)
  3. Not prescriptive of particular business models
2. A service provider releasing content using a proprietary DRM technology (pDRM) must
  1. Release it also using the iDRM technology
  2. At conditions that are not discriminatory wrt pDRM
3. Anybody may
  1. Realise devices and services
  2. Request and obtain conformance certification
  3. Offer devices and services to interested parties
4. The iDRM ecosystem governance is managed by representatives of the affected parties

# Open network

1. Two-way broadband operators offer bundled and/or unbundled access to their networks with technical features of their choice
2. Any network user may request and obtain from a two-way broadband operator
  1. The raw two-way service-agnostic access to the "big Internet"
  2. With technical features already offered by the operator
  3. At conditions that are not discriminatory wrt the operator's offer
3. Two-way broadband operators
  1. Guarantee network service interoperability
  2. Agree and provide specific QoS levels at peering points so as to provide users end to end QoS levels

# Open payment system

- An operator may offer non-monetary “account” services
- “Account” services interoperate with those offered by other operators
  - For inter-account transactions related to digital media
- Anybody can open an “account” based on a guaranteed “real” payment system, e.g.
  - Bank account, credit card, prepaid card, utility bill (gas, phone etc.)
- Synchronisation between virtual and real circuits is performed at regular times or on demand
  - Lower transaction costs

# Conclusions

- The way they want it
  - Content providers want to keep control of the use of their content, but
    - End users want freedom to select, get and use content
    - They have grown accustomed to do exactly that
  - Service providers want to tie their services to delivery, but
    - End users could not care less of delivery dependence
    - They have grown accustomed to delivery-agnostic services
- Fighting against end users' wishes is like fighting against windmills
- The way they may want it
  - Providing what end-users want the way they want
    - Broad access to content
    - Respect of rights that respect end users
    - Unspoilt user experience
  - Competing in making the end user happy – not unhappy