Music In The Digital Age
The Issues of Napster

Frank Field
Technology & Policy Program
Cambridge-MIT Institute

New Age of Distribution

- Introduction Through A "Messy" Case
- Napster/Peer-to-Peer Music Systems
- Formal Framework of the Conflict
  - Copyright Infringement
  - Theft of Intellectual Property
  - Violation of Statutory S tructures
- However, LOT'S More Is Going On

Music Industry Challenges

- Changes in distribution technology
  - Implicit in conversion to digital formats
  - Rise of the CD, other formats
  - Network for distribution
- Accessibility of technology means a loss of control
- Current business models based upon retaining this control
- How to think about responses?

Lessig's "New Chicago School" Model
Constraints On Individual Action

Modalities of control
Modalities of control in music

- Legal
  - Copyright – keystone
  - Formal monopoly
  - Some exceptions & weaknesses
- Market
  - Pricing policies, manufacturing costs, concentration & size
  - Access to distribution channels
- Architecture
  - Digital formats, copy protection, hardware locks
- Norms
  - Education programs, rhetorical positions

Copyright: General Principles

- Objective:
  - Wide distribution of diversity of creative expressions
- Difficulty: Cannot sustain economic incentives to do so
  - High up-front costs in creation & setup for distribution
  - Negligible marginal costs in copying for distribution
  - In competitive market, price equals marginal cost
- Solution: Award creators with monopoly powers
  - Marketable asset
  - Rents can be extracted
  - Back by power of the State at point of distribution

Exclusive Rights Associated With ©

- Right to Copy
- Right to Distribute
- Right to Make Derivative Works
- Right to Public Performance
- Right to Public Display
- Right to Attribution and Integrity
- Rights of Sound Recordings
- Rights of Phonograms
- Rights of Performers
- Rights of Authors
- Rights of Copyright Management
- Rights in Information

TP5, 2003, Michaelmas
Copyright:
A Technologically Sensitive Policy

- Routinely upset by new technologies
  - Reduced costs of copying
    > Photocopiers, tape recorders
  - Reduced costs of distribution
    > Player piano rolls, radio, CDs
- Maintenance of economic incentives as technological capabilities increase
- However, copyright also has the effect of protecting specific methods/industries of distribution
  - Limits access to instruments of distribution

The Views At Conflict

<table>
<thead>
<tr>
<th>Content drives the development of the internet</th>
<th>Content drives the development of the internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content providers need to retain classical forms of control to support the economies of creativity</td>
<td>The economies of internet distribution change the business of content distribution radically</td>
</tr>
<tr>
<td>The law should protect those controls</td>
<td>These economic benefits are a sufficient incentive to provide content</td>
</tr>
<tr>
<td>And technology should be managed to maintain these controls</td>
<td>Technology &amp; law need not change dramatically</td>
</tr>
<tr>
<td>Then, and only then, will content providers participate fully</td>
<td>Only those willing to adapt to these changing economies will survive</td>
</tr>
</tbody>
</table>

Napster Confronts Us With Some Key Questions

- What is it that record companies sell?
- What is it that consumers buy?
- What is the value proposition for both?
- What is the business model that underlies this industry?
- What is the proper role of technology in this area?
- How should the modalities of control be employed?

Music Licensing Structures - Current Non-Digital

- SIM like - focus on music delivery, & mechanical reproduction
Responses To Loss Of Control

- Legal Initiatives
  - Lawsuits, Legislative & Regulatory Changes
- Technological Initiatives
  - "Digital Bottles", Copy protections, New Formats (SACD, Audio DVD, etc.)
- Economic Initiatives
  - Price reductions, Distribution channels with control
- Behavior/Norm Initiatives
  - Education programs

Copyright Term - One Initiative
Corporate Influences, Lobbying and Negotiation

- "Steamboat Willie," Debut of Mickey Mouse, 1928
  - Note Importance of ~25 Years in These Trends
  - May Have Been Latent At Outset
  - Pattern became too obvious to miss
- 1998 Statute: "Sonny Bono Copyright Term Extension Act"
  - "Mickey Mouse Protection Act"

<table>
<thead>
<tr>
<th>Year</th>
<th>Term</th>
<th>Duration</th>
<th>Diff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1928</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1956</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1957</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1971</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A "Norms" Initiative

- Labeling File Sharing as " Piracy "
  - " File sharing is the same as shoplifting a CD "
  - !!!! " Copyright infringement " << " Theft "
  - Illegal, yes, but not theft
- P2P Networks As Evil
  - Bandwidth Consumers
  - Pathway to Virus/Worm Installation
  - Tied to Distribution of Child Pornography

The Digital Dilemma

- On one hand, technology has made copying easier
  - Anyone can be a " publisher "
  - With the same rights, opportunities, exposure, obligations
- On the other hand, technology has given copyright holders the instruments for perfect control
  - Versus the historically " weak " construction
  - Fair use, First sale, Idea/Expression dichotomy

Still " promot[ing] the Progress of Science and useful Arts?"
Evolution of the Governing Principle

- Early Copyright
  - Protection of Distribution
  - Assurance of Dissemination of Ideas
  - Enrichment of the "Intellectual Commons"
- Today’s Copyright
  - Provide Economic Incentives For Innovation & Innovative Works
  - Subtle Change in the Nature Of The Debate
  - At The Margin, A More Protective Scheme Will Always Add A New Innovator
  - Loss Of "Intellectual Commons"

Lurking Problems

- "Digital Bottles" – formats for distribution of creative content are now legally protected
  - Cannot be "opened" without permission of copyright holder – "freedom to tinker"
- Legislation proposed to legislate hardware locks to back up protection of "digital bottles"
- Related: Term of copyright continues to lengthen
- Implication: "The enclosure movement" Ownership of culture moving to private hands

It’s Not Just About P2P/Music

- Digital technology has led to many new opportunities
- But certain constructions of the law are turning those opportunities into a stranglehold on freedom & culture
- How far do we want to go to protect this construct?
- What do we get out of it?

The (not-so) "Academic" Objections

- Privacy critics of the DMCA subpoena power (the so-called "Verizon case")
- One (so far) out of 261 lawsuits filed in error
  - A second complaint filed Oct 14, 2003
“Architecture” Changes in the Internet

- Proprietary Client/Server & Formats
  - Real Networks
  - Windows Media
- Encryption Concerns
  - E-book
  - CSS for DVDs
  - SDMI/MDM/IBM's InfoScale/MDM bar for CDs
- Trusted Server/Identification Systems
  - Hash server/Passport/Pollution
- Hardware Initiatives
  - CPRM
  - TCFA
  - SDMI
  - Blocking Digital Output
- The "Other" Constraint Formats
  - Legal Ties
    - Copyright/Digital Rights Management
  - Anti-Circumvention
  - SCCEA/BBTPA - Philippines (DTSC)
  - Bertram Cable
- Economic Tie Ins
  - Market Power/Dominance
- Formica Concerns
- Culture
  - "Information" Campaigns

Disputes - Extant and Emerging

- Music Sharing Systems
  - Napster
  - For Pay Services
  - Pure Peer-to-Peer
  - Illegal
  - Software
  - OLGA/Tabletac
- Anti-Circumvention Tests
  - Sylvania & e-Books
  - Felsen & SDMI
  - DeCSS/Johannes Bruchmann
  - Halderman & SunConnect
- Open Source/"Shared Source"
  - Operating System Standards
  - Licensing Concerns
- Databases
  - End Run On "Fair Use" Exception For Copyright
  - Webcasting
  - Compulsory Licensing?
  - Other Methods
  - Raids On File Sharers
  - National Cheng Kung Univ. (Taiwan)
  - Oklahoma State
  - Soniah/Korea
  - VeriSign Subpoenas
- Anti-Trust Questions
  - Big 5 and their Online Music Plans
  - Record Promotion/Payola

A Few Issues

Music Questions

- Defend the Current Distribution Model?
  - Or Develop A New Business Plan?
- Has Napster "Poisoned" The Digital Music Distribution Well?
- Digital Delivery A Perfect CD Substitute?
  - Whose Fault Is That?
- Is Digital Delivery Sufficiently Different To Sacrifice Other Goals?
  - Fair Use?
  - The Public Domain?
  - Functionality In Digital Machines?
  - Functionality In Software & O/S?

A Few Issues

Deer Questions

- "Copy-Duty" - Lessig/Litman
  - A "Right to Read?"
- "First Sale" Doctrine
- Limits on Consumer Technology?
- Barlow's "Digital Bottles"
- Is "Digital" -- "Better?"
- Is Ice-T Right? Are We "Robbers?"

TP5, 2003; Michaelmas
How To Answer These Questions?

- Study of the Interplay of The Modalities of Control and Their Surrounding Context
  - Market Structure & Power
  - Political Choices
  - Legislative Initiatives
  - Judicial Interpretation
  - Technical Advances/Developments