

Blake White

Digital Hollywood
March 31, 2004

Digital Media Risk Management



Critical Industry Issues



The E&M Sector is Uncovering a Myriad of Issues:

1. Security of Digital Workflow within the Virtual Studio and among Outsourced Partners
2. Convergence of Digital Broadcast Infrastructure and IT Infrastructure
3. Privacy Assurances to Customers/Subscribers
4. Piracy is a Serious Problem for the Entertainment Industry
 - MPAA estimates \$3B in annual revenues were lost by the US motion picture industry
 - Music industry loses \$4.2B to piracy worldwide and \$300M a year domestically (RIAA)
 - CD copying has doubled in last 3 years (Jupiter)
 - 200 millionth download of Kazaa Media Desktop (KMD) on 3/11/2003

Balance Enablement and Protection

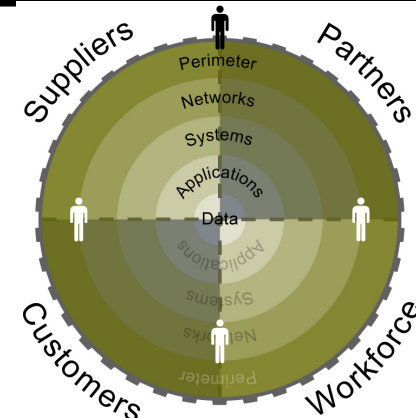


- **Enterprise (B2B)**

- Within the Studio Workflow
- Among Business Partners, Sub-contractors, and Service Providers

- **Media Commerce (B2C)**

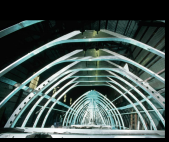
- Enable Customers who are Willing to Pay
- Protect Against Information “Anarchists” who Refuse to Pay
- Legal Remedies Against Commercial Pirates for Profit



Our goal is ... “protecting content against theft and illegal redistribution, while protecting the thrilling advances and digital abilities to which we are accustomed.”

-- Peter Chernin
President & COO, News Corporation
Chairman & CEO of Fox Group
Keynote address at 2003 COMDEX

Key Decisions Before a DRM is Implemented



- Gives us some sense of the scope and forces us to think about the parameters of the problem, such as:
 - (a) If 1% piracy isn't acceptable, what is acceptable?
 - Given that no DRM is foolproof over time, what level of comfort should content companies demand from the technology vendor community?
 - (b) What is the size and timing of the payback needed per digital song released?
 - How quickly must content owners make their money before songs are floating around the internet for free?
 - (c) How can we build DRM systems that are so invisible to customers that we can improve their willingness to look at a preview of the content in return for a simple, non-invasive, privacy-respecting registration mechanism?
 - (d) How can content owners make such compelling content that we improve the 'uptake' rate?

Humans, Still the Weakest Links in Security

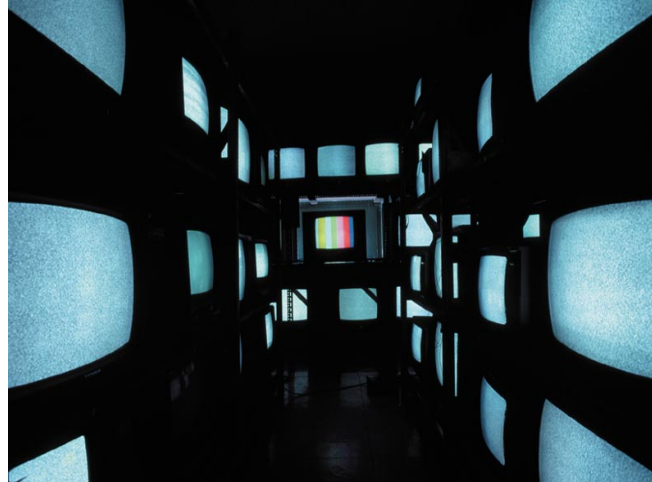


PRICEWATERHOUSECOOPERS 

Wall Street Journal
March 3, 2003 --

Hollywood Gives Pirates a Hand

The big Hollywood studios' decision to send out so-called screeners in DVD format to the people who vote on the Academy Awards was a case of the lust for Oscars winning out over the desire to stamp out piracy, resulting in a field day for bootleggers.



Nearly 80% of 300 copies of popular movies found by the AT&T Labs researchers on online file sharing networks "appeared to have been leaked by industry insiders," and nearly all showed up online before their official consumer DVD release date

Los Angeles Times
June 10, 2003 --

Universal Sees Red Over "Hulk" Bootleg

An unfinished version of Universal Pictures' upcoming movie "The Hulk" that was leaked onto Internet file-sharing services ... Universal told The Times the negative reviews on sites like Ain't It Cool News, which have criticized the look of the computer-generated Hulk, are unfair because the leaked version is unfinished.

Thank You

blake.white@us.pwc.com

(213) 217-3886

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Your worlds



Our people

Re-Think the Real Problem, cont.

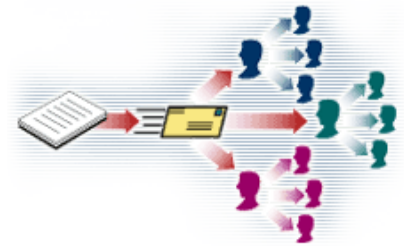


Image Courtesy of PublishOne
(InterTrust Technologies)

- **Peer-to-Peer File Sharing is Not Illegal, and can be Combined with DRM to Become an Enabler of New Business Models**
 - Hypothetical Scenario
 - P2P Superdistribution without DRM → **200% decrease** in sales + 0 new contacts
 - P2P Superdistribution with DRM → **115% increase** in sales + 1.5M new contacts

Scenario – 1M songs sold, P2P file sharing

<i>Upload Rate</i>	30%
<i>Download Multiple</i>	10
<i>Preview Rate w/o Condition</i>	100%
<i>Preview Rate w/ Condition</i>	50%
<i>Take Up Rate</i>	10%
<i>Unprotected Piracy Rate</i>	100%
<i>DRM Protected Piracy Rate</i>	1%

Re-Think the Real Problem, cont.



- **Peer-to-Peer File Sharing is Not Illegal, and can be Combined with DRM to Become an Enabler of New Business Models**
 - Hypothetical Scenarios Based on Pew Foundation Data (2003)
 - At least 1.58 billion files are being downloaded and/or swapped without payment a year (Pew)
 - At \$0.99 a song = \$1.56B is being lost due to unprotected content*
 - if DRM could be broadly and successfully implemented: **
 - **\$1.56B** in losses be prevented
 - **\$71M** in new sales of DRM-protected songs
 - **790M** songs could be tracked to their respective owners for future customer relations activities.
 - Net Benefit of DRM to the Music Industry***
 - **\$1.63B**
 - 4% improvement in new marketing capability

– * This calculation is based on ---> If we conservatively assume that, (a) the 4% of daily downloaders only download 1 song a day, (b) if the remaining 25% of admitted downloaders only take 1 song a year, and (c) if the 21% of file sharers (less the 12% who both share and download) only do so once a year. Clearly they are downloading more than that.

– ** This calculation is based on --> If it were (a) possible to implement a standardized DRM system in PCs, as well as CE devices, and if (b) a 1% piracy rate was an acceptable business risk, and clever use of DRM's preview/sampling capability were in force such that (c) 50% of the downloaders/sharers would put up with the hassle of a DRM protection system and its subsequent request to register a name and an email address, and (d) assuming 10% of that subset then bought an electronic song at \$0.99.

– ***Where benefit = new sales + prevention of lost sales + identification of new potential customers.