# Digital Music Technology & Law

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#### 33<sup>rd</sup> Annual National Conference on Law & Higher Education



#### **DISCLAIMER....**



#### Overview

- MP3 Technology
- Copyrights
- Fair Use
- Digital Rights Management
- RIAA and DMCA
- P2P Sharing
- Parody
- Ringtones

The MP3 File

#### <sup>°</sup> MPEG-I AUDIO LAYER 3

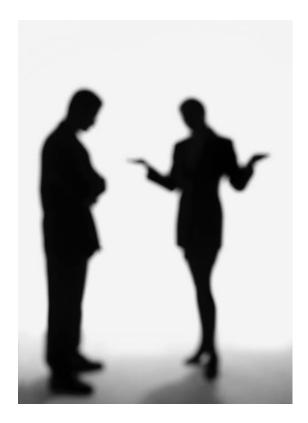


# MP3 Development



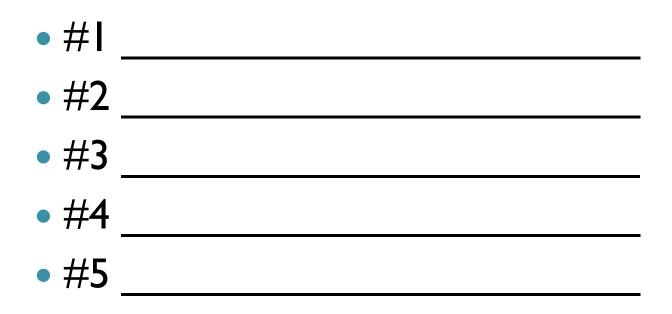


#### Patents Rights to MP3?



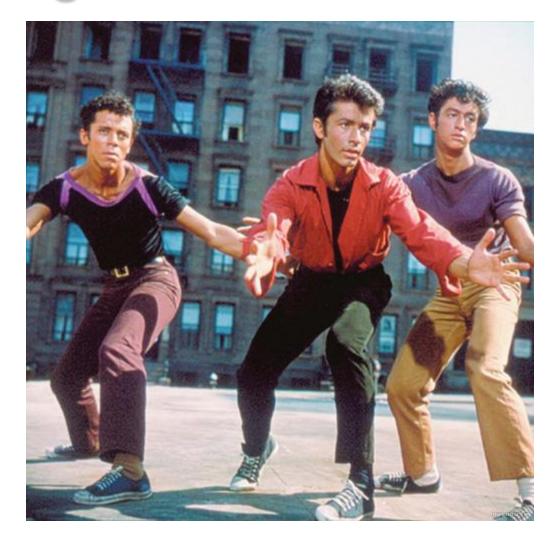
#### ° COPYRIGHTS TO DIGITAL AUDIO

# Five (5) Exclusive Rights Given to Copyright Owners?



#### #I: Right to Reproduce the Work

#### #2: Right to Create Derivatives



## **#3: Distribute Copies to Public**



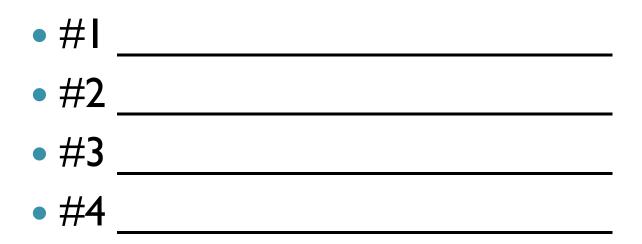
## #4: Perform Work Publicly



# **#5: Display Work Publicly**

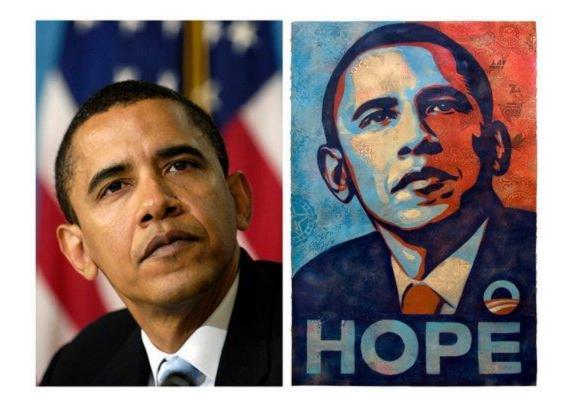


# Four (4) Factors of Fair Use



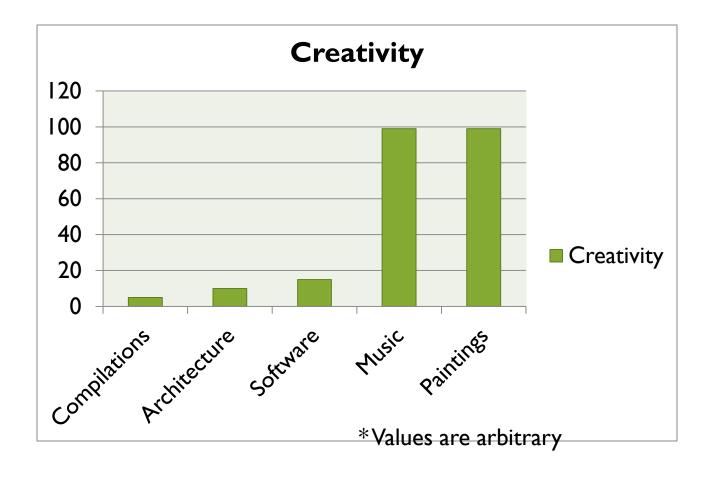


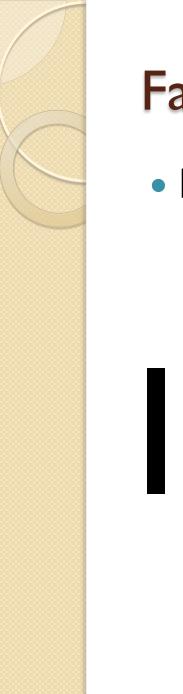
#### • Purpose and Character of Use





Nature of the Use





Portion Used

# 10% Rule





• Effect of Use on Market

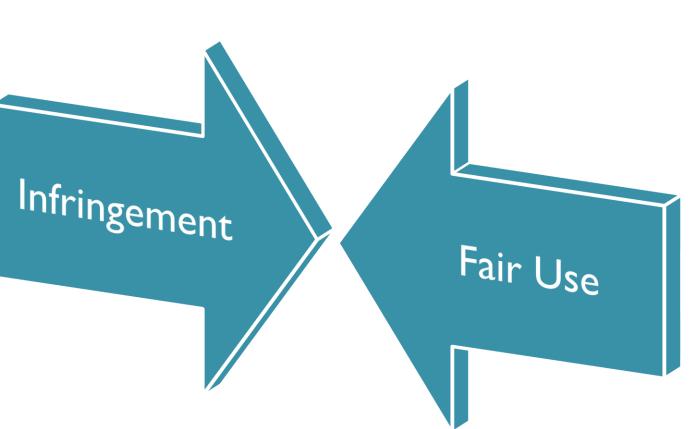


Music CD Sales

#### DIGITAL RIGHTS MANAGEMENT

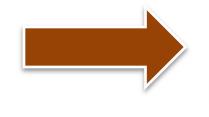
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# How is digital media different from analog media?









### **DRM** in device licensing



# **Does HDMI have DRM?**







#### **Advanced Access Content System**

- Disney
- Intel
- Microsoft
- Panasonic
- Warner Bros.
- IBM
- Toshiba
- Sony

#### **DRM – Content Scrambling System**



Jon Lech Johansen

## DRM – Contest Scrambling System

```
void CSSdescramble(unsigned char *sec,unsigned char *key) {
 unsigned int t1,t2,t3,t4,t5,t6;
 unsigned char *end=sec+0x800;
 t1=key[0]^sec[0x54]|0x100;
 t2=key[1]^sec[0x55];
 t3=(*((unsigned int *)(key+2)))^(*((unsigned int *)(sec+0x56)));
 t4=t3&7:
 t3=t3*2+8-t4;
 sec+=0x80;
 t5=0:
 while(sec!=end) {
   t4=CSSt2[t2]^CSSt3[t1];
   t2=t1>>1:
   t1=((t1\&1)<<8)^{t4};
   t4=CSSt5[t4];
   t6=(((((((t3>>3)^t3)>>1)^t3)>>8)^t3)>>5)&0xff;
   t3=(t3<<8)|t6;
   t6=CSSt4[t6];
   t5+=t6+t4:
   *sec++=CSSt1[*sec]^(t5&0xff);
   t5>>=8:
```

**DeCSS** Code Fragment

# Sony BMG CD DRM (2005)

- Extended Copy Protection (XCP)
- MediaMax CD-3

# Current DRM Approach

- ~\$.99 downloads non-DRM
- Unlimited subscriptions DRM enabled

May 14, 1998

#### <sup>o</sup> DIGITAL MILLENNIUM COPYRIGHT ACT

# **DMCA - Reverse Engineering**

For Interoperability Purposes

17 U.S.C. 1201(f)

For Violating or Encouraging Violation of Copyrights

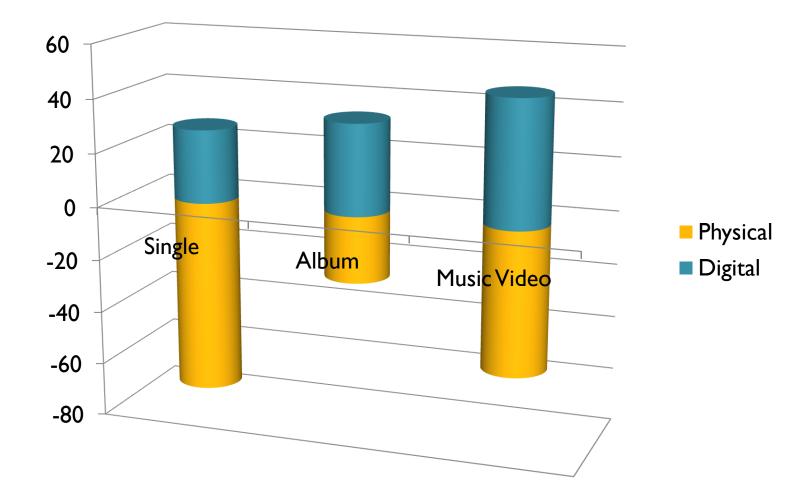
#### eBook's Security - Theory and Practice



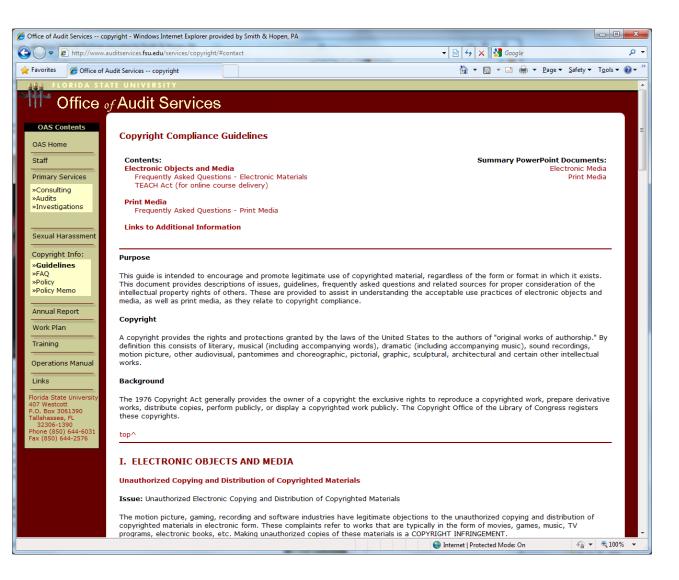
Dmitry Sklyarov

#### RECORDING INDUSTRY ASSOCIATION OF AMERICA (RIAA)

#### RIAA Shipment Statistics % increase/decrease in sales 2007/2008



#### **DMCA** Safe Harbor

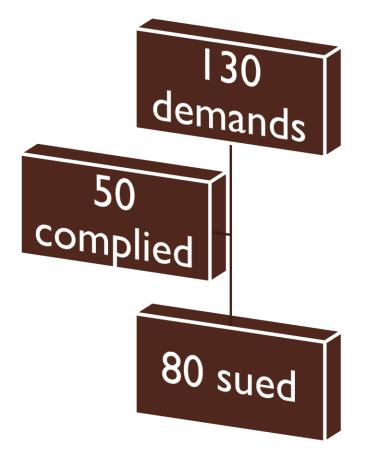




#### DMCA Safe Harbor

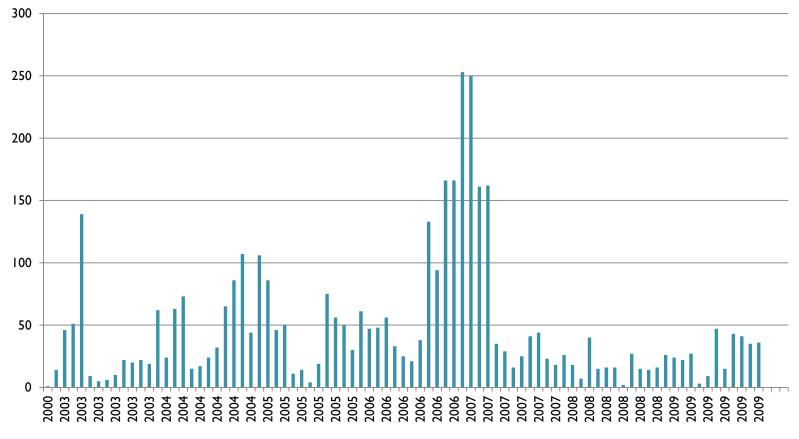
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ernative Name(s) of Service Provider (including all names under w	Full Legal Name of Service Provider: The Florida State University	
Alternative Name(s) of Service Provider (including all names under which the service provider is doing business):		
dress of Service Provider; 222 South Copeland Street; Tatlahassee, Florida 32306		
ne of Agent Designated to Receive ification of Claimed Infringement: Joseph A. Lazor		
I Address of Designated Agent to which Notification Should be Sem milar designation is not acceptable except where it is the only address that can be used in t ion:: and of information Technology Services; C8107 University Center C: Tatlahassee, Florida 32308-2	k (a P.O. Box he geographic	
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#### RIAA 2007 demands letters to USF



#### Claims of © Infringement to USF

#### **Number of DMCA Notices**



Source: USF General Counsel's Office



#### Lenz v. Universal Music Corp.







#### Lenz v. Universal Music Corp.





#### Capitol v. Thomas



Napster, Grokster, et al.

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#### PEER-TO-PEER FILE SHARING



#### P2P – Entrepreneurs







## Napster

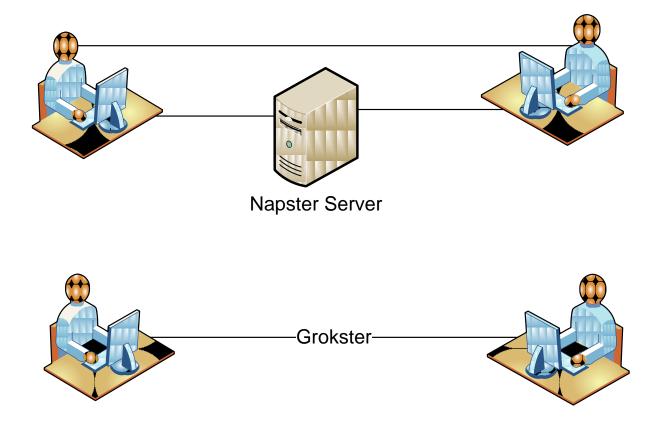
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White Album\be11b - 12 - revolution 9.mp3	12,053,653 192 44100 8:16 therealh DSL 50				
White Album/be11b - 08 - revolution 1.mp3 White Album/be11b - 08 - revolution 1.mp3	6,138,531 192 44100 4:15 therealh DSL 50				
Past Masters Volume Two\be15 - 08 - revolution.mp3	4,912,821 192 44100 3:25 therealh DSL 50				
Beatles - Revolution 1.mp3	3.068.032 96 44100 4:15 ryanm1c T3 90				
The Beatles 1 Revolution 9 master version, RS1(mono).mp3	7,489,536 128 44100 7:42 ryanm1c T3 90				
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Napster\Talkin' Bout A Revolution.mp3	3,196,928 160 44100 2:41 wakflakes T1 110				
Music/Revolution 1993.mp3	24,672,131 320 44100 10:08 voshizumi DSL 120				
Music\Purple Rain - Prince And The Revolution - The Beautiful Ones[1].mp3	3,772,105 96 44100 5:12 miking46 T1 131				
Music\The Beatles - Revolution.mp3	3,282,624 128 44100 3:26 donnie2 T3 131				
Music \[Queensryche]Operation Mindcrime=Revolution Calling.mp3	2.473.200 128 44100 2:36 frankief DSL 140				
Prince and the Revolution - Raspberry Beret.mp3	3.402.470 128 44100 3:33 xmurdoc DSL 141				
Sway and King Tech feat. Rza, Eminem, KRS-One, Ezibit and DJ Revolution - The Anthem.mp3	5,439,488 160 44100 4:31 JtheLover T1 160				
Coalesce 012 Revolution in Just Listening\09-They Always Come In Fall.mp3	2,118,272 128 44100 2:15 youasth T1 160				
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Coalesce 012 Revolution in Just Listening VorVesus in the Hell Is Rick Thome These Days.mp3	1,852,523 128 44100 1:59 youasth T1 160				
Coalesce 012 Revolution in Just Listening 00-where the Heiris Rick Thome These Days.mp3	3.219.249 128 44100 3:22 vouasth T1 160				
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<ul> <li>Coalesce 012 Revolution in Just Listening V04-while the Jackass operation spins its wheels inp Coalesce 012 Revolution in Just Listening V03-Burn Everything That Bears Our Name.mp3</li> </ul>	2,300,575 128 44100 2:26 youasth T1 160				
Coalesce 012 Revolution in Just Listening V03-built Everything That bears our Wahlerings Coalesce 012 Revolution in Just Listening V02-cowards.com.mp3	2,330,575 126 44100 2.28 youasth T1 160				
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Beatles \Beatles - Revolution.mp3	4,874,385 192 44100 3:24 geenlir T1 180				
World-Wide-Message-Tribe-Revolution.mp3	3.377.663 128 44100 3.32 sh8463 DSL 190				
Bad Religion/victims of the revolution.mp3	3,154,337 128 44100 3:18 robertie T1 240				
Chance Dance Revolution) Get Up 'n Move.mp3	1,272,740 128 44100 1:23 pmckni DSL 240				
Music\Pantera- Revolution is my name.mp3	5.103.616 128 44100 5.17 POD4Bi DSL 240				
Music V antera- Revolution is my name.mp3	5,103,616 128 44100 5:17 P0D4Bi DSL 261				
Music Variation revolution is my name.mp3 Music Variation revolution is my name.mp3	5,103,616 128 44100 5:17 P0D48i DSL 261				
Music/Pantera-Revolution is my name.mp3	5,103,616 128 44100 5.17 POD48i DSL 261				
Returned 8					
Get Selected Songs Add Selected User to Hot List					
Online (dwiner): Sharing 368 files. Currently 871,800 files (3,524 gigabytes) available in 7,119 libraries.					



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#### **Functional Differences**





#### Napster Defenses





#### **Grokster Defenses**





#### Sony Defense



# Grokster's Sins (according to U.S. Supreme Court)



#### Dec. 2008 RIAA Shifts Policy



#### Campbell v. Acuff-Rose Music





## Four (4) Factors of Fair Use

- #I Purpose and Character of Use
- #2 Nature of Copyrighted Work
- #3 Amount Used
- #4 Effect Upon Potential Market

AT&T and ASCAP

#### <sup>°</sup> RINGTONES & RINGBACKS



## Four (4) Factors of Fair Use

- #I Purpose and Character of Use
- #2 Nature of Copyrighted Work
- #3 Amount Used
- #4 Effect Upon Potential Market

#### Conclusions

- Copyright a powerful tool for owners
- Digital medium has spawned a number of new legal issues.
- Fair use analysis an issue in almost all contested © cases.



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