
Music Industry & MP3

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Agenda

- Introduction mp3
 - Comparison of CD file & mp3
 - Mp3 and music industry
 - Mp3 and other music-related industry
 - Suggestion
-

Introduction – MP3

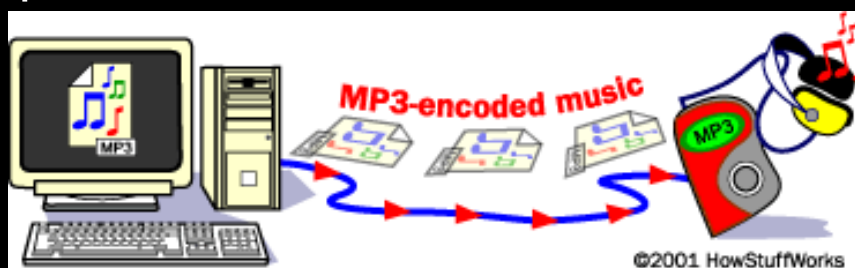
WHAT IS MP3?

- MPEG-1 Audio Layer 3
- The most common & popular file format today
- Extension ".mp3"
- Compressing audio files
- Can be played in music software like window media player or iTunes

Introduction – MP3

MP3 & MUSIC

- easy to distribute music at nearly no cost
- easy to find music and access it instantly
- taught people about manipulating sound on a computer



Introduction – MP3

CHARACTERISTIC OF MP3

- *Lossy compression algorithm*
→ reduce the size, but retain the quality
- Quality depend on encoder & encoder parameter
- Enable widespread P-to-P file sharing

Comparison of CD file & mp3

- **COST**
→ no cost for mp3
- **CONVENIENT**
→ small size easier to move from your around & stored on your home PC or portable music player

Comparison of CD file & mp3

■ QUALITY

→ near CD-quality (lossy format, not exactly the same, sometimes producing artifacts)

→ **perceptual noise shaping**

1. Certain sounds that the human ear cannot hear.
2. Certain sounds that the human ear hears much better than others.
3. If there are two sounds playing simultaneously, we hear the louder one but cannot hear the softer one

Comparison of CD file & mp3

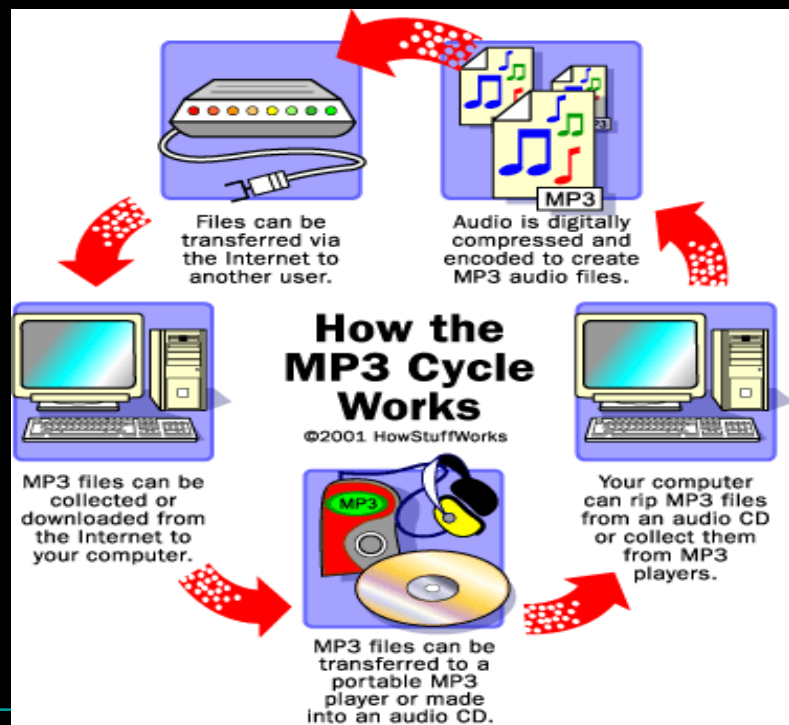
■ SIZE

→ small size of mp3
e.g. a 3-minutes song

1. CD: about 32 MB
(need 2 hrs to download)
2. mp3 file: about 3 MB
(only a few mintues)

Mp3 Cycle

- Ripper (copies) & encoder (compresses) convert CDs → mp3



Mp3 & Music Industry

- **PROS:** new selling method
 - online music retailer
 - corporate between music company & music software (e.g. iTunes)
- **CONS:** indirectly decrease the sales of CD
 - illegal download of songs
 - e.g. P-to-P network

Mp3 & music-related product

- **Benefit products:**
Portable Mp3 player
→ e.g. iPod
Music mobile phone
- **Affected products:**
CD player
Cassette player
CD retail shop



Suggestion to illegal download

- **“Serial number” Method Procedure**
 1. add private serial code at each CD
 2. corporate with popular music software (e.g. Window Media Player or iTunes)
 3. Users connect PC to internet
 4. Users play music using the music software
 5. Software check the serial code
 6. Prohibit playing 2 mp3 file with same serial code song at the same time

Suggestion to illegal download

- “Serial number” Main Idea

1. Using the power of network

→ the more people sharing the file, the possibility of successfully playing the file is low

2. Not stopping the illegal download, but making difficulties for people uploading

→ trouble for the one upload the music

The End

Do you have any question?