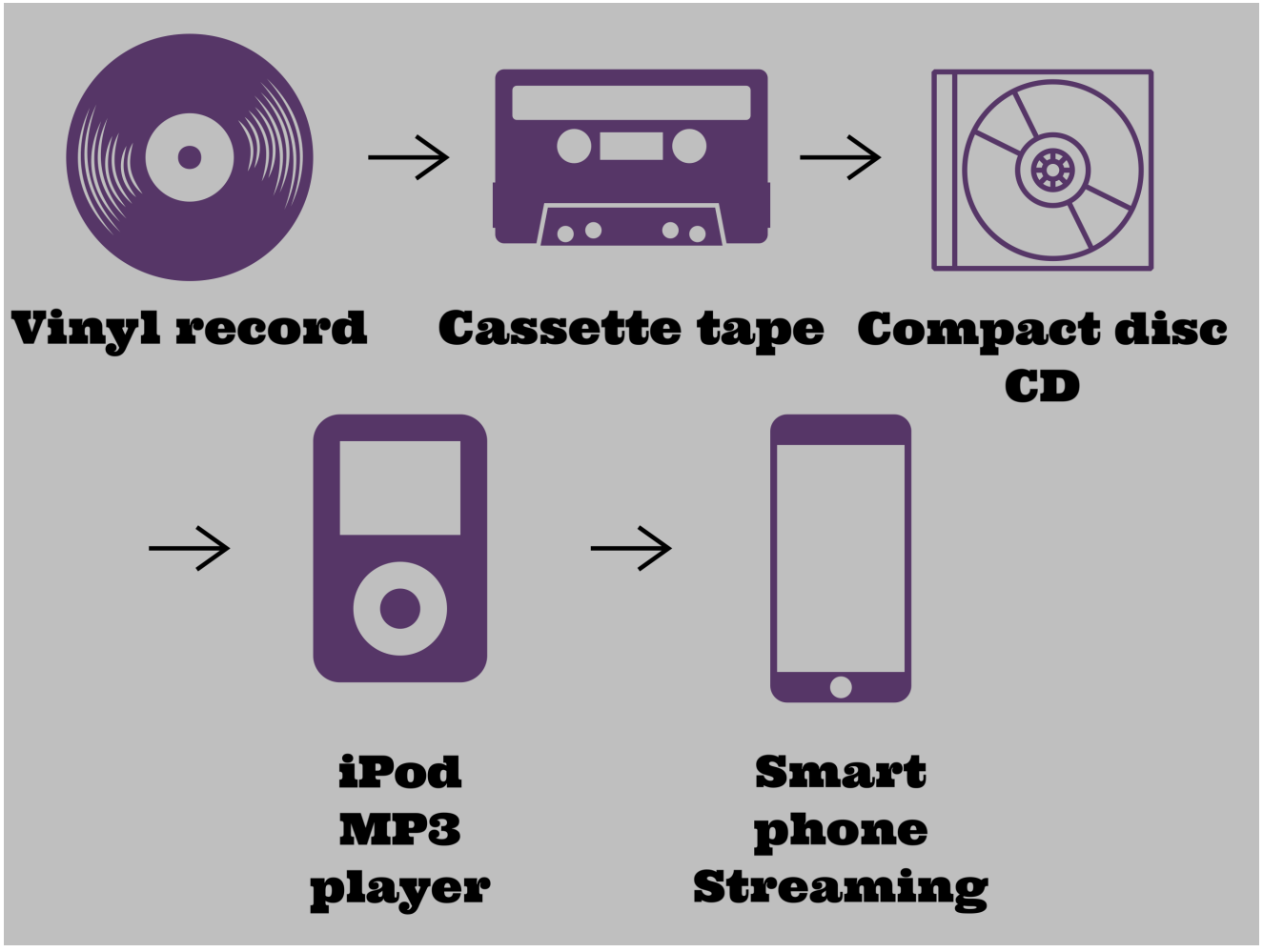
Technology and heavy metal

I. Overview

- Technology impacts the way we listen to music.



I. Overview

- Technological advancements made music portable.
  - Ford factory-installed 8-track tape players into their vehicles in 1965, paving the way for cassette decks, CD players, and now Bluetooth to be standard in every car.
  - Portable tape and CD players as well as the iPod made it possible to listen to music anywhere.

I. Overview

- Music in physical form involves maintaining the integrity of the media.

- The clunkiness of carrying around a music catalog and the expense of buying physical albums shifted consumer preferences toward digital music.

II. File sharing and intellectual property

- The magic of listening to music in the 1990s and early 2000s included
  - Calling a radio station to request a specific song and subsequently recording it with a cassette tape recorder when the DJ played it.
  - Infecting the family computer with multiple viruses by downloading linkin_park_numb.mp3 on Limewire.
  - Illegally downloading a single album, which took at least 3 days, and then "burning it to a CD."
- These examples involve violating copyright law to obtain "free music," even though it required significant *time* and *effort*.

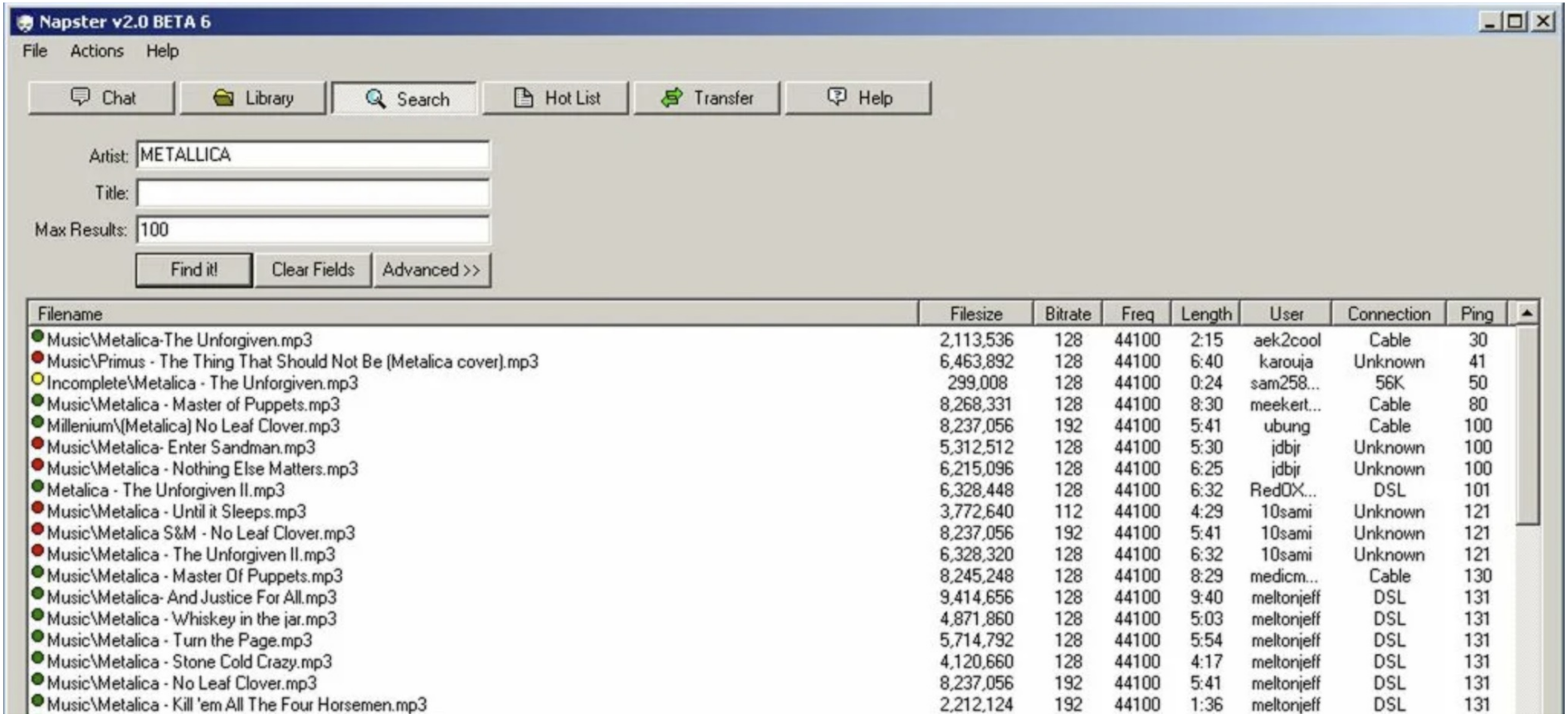
II. File sharing and intellectual property

- **Napster** was as a peer-to-peer file sharing application launched on June 1, 1999 by Shawn Fanning, Sean Parker, and Hugo Sáez Contreras.

- The expansion of high-speed internet, particularly on college campuses, made the program popular to search for and download MP3s.

    - An MP3 is a digital music file that is compressed to allow for easy storage and transfer.

II. File sharing and intellectual property



II. File sharing and intellectual property

- In early December 1999, the Recording Industry Association of America sued **Napster**.
- **Metallica** launched their suit in April of 2000, after discovering an incomplete version of "I Disappear" was leaked to **Napster** and was getting radio airplay as a result.
- A separate lawsuit was filed by **Dr. Dre** weeks later.

II. File sharing and intellectual property

- On July 11, 2001 **Napster** shut down to comply with court injunctions. The company eventually settled with **Metallica** and **Dr. Dre** and filed bankruptcy in 2002.

- **Napster** never turned a profit. The brand and logos were acquired at a bankruptcy auction.

- The service was quickly replaced by other file sharing programs such as BearShare, Kazaa, Morpheus, and Limewire.

II. File sharing and intellectual property

- **Metallica's** drummer **Lars Ulrich** insisted that the lawsuit was about creative control, rather than money, but many metal fans viewed it as another way of "selling out."
    - Tape trading networks were an important part of the Bay Area thrash metal scene in the 1980s and **Metallica** participated in them.
- Is piracy good or bad for underground music like heavy metal?
    - File sharing helped diffuse metal globally, especially when there was no way to purchase the music.

II. File sharing and intellectual property

- Revenue from recorded music fell by more than half from 1999 to 2015, from $14.6 billion to $6.7 billion in the United States.
- From 2015 to 2017, revenue increased by $2 billion, erasing the previous ten years of declines.
- *"Technology always wins. But what if you can make a better product than piracy?"* -Daniel Ek. co-founder and CEO of Spotify
  - The cost of piracy > The cost of purchasing music
  - Streaming is possible thanks to improvements in internet speeds.

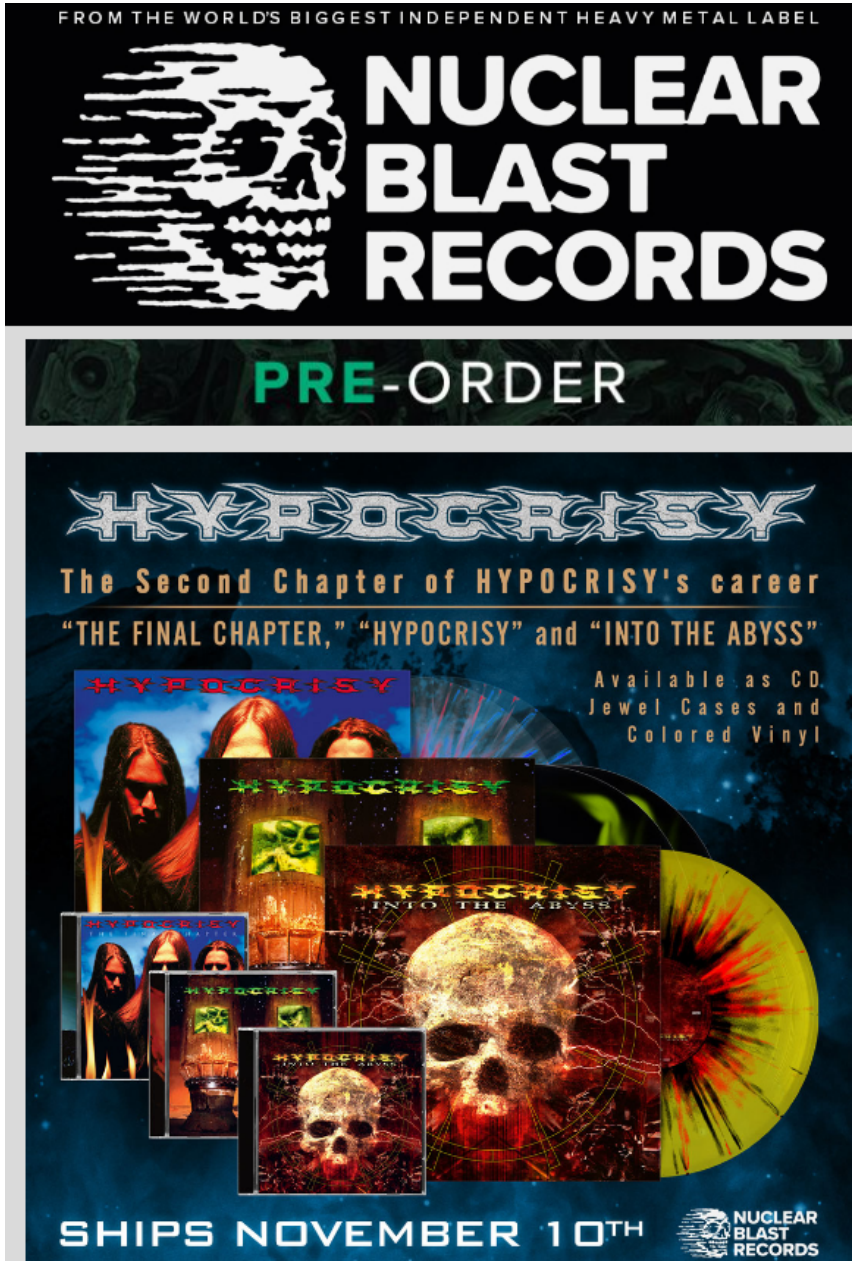
II. File sharing and intellectual property

- Is streaming good for heavy metal artists?
  - Streaming gives a second wind to older songs (back catalog).
  - Metal songs are longer on average, and therefore generate fewer streams in a given time frame.
  - Metal receives 15% to 25% less royalties under the **pro rata model** (Meyn et al., 2023).
    - **Pro rata model:** The revenue from all subscriptions is pooled together and the percentage that artists are paid is proportional to their number of streams across the entire platform. It favors the right holders of the most listened to tracks.
    - **User-centric model**: The revenue from each single user is divided by the total number of streams generated by that user. The monthly payout per stream is based on its market share of each individual user and may vary across users. It favors smaller artists.

III. Album art

- Technology allows for DIY recording and social media provides new revenue opportunities. How will technology impact the music industry in the future?
- What is lost when music becomes digital?
  - Listening to music is a less tangible experience and there is less emphasis on album art.
  - Album art serves as a visual representation of the band's message and aesthetic. It is also open to interpretation, just like lyrics.
  - Many fans of metal prefer listening to and collecting physical media.

III. Album art



III. Album art

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References

- Krueger, A. B. (2019). Rockonomics: A backstage tour of what the music industry can teach us about economics and life. Penguin Random House. 177-204.

- Meyn, J., Kandziora, M., Albers, S., & Clement, M. (2023). Consequences of platforms' remuneration models for digital content: Initial evidence and a research agenda for streaming services. *Journal of the Academy of Marketing Science*, 51(1), 114-131.