Music from CDs can be converted to MP3 and played on a computer.

The Fraunhofer Institute of Erlangen in the early 90s developed the MP3 format to encode music in computer files, allowing people to share MP3 files.

What did Napster deal with?

...able, because there are successors to Napster. There is likely to be an increasing amount of shared data available.

Napster has shown that file sharing is a popular activity on the Internet.

Why bother?

2000-12-02

Thomas Kitchel

Sharing resources over the Internet

Lecture 8

L15966
For Spanish and recipients, is virtually zero. The difference with the Internet is that the cost of sharing, both
the book industry. When libraries were invented, some thought this was the end of

But sharing is not new

If data can be shared, "freely" with an unlimited number of peers, consumer may share this with a limited number of people.

Trible

Who stole software "proprietary", i.e. no source code, clone software?

User can search Index for the music that others have con-
put: if there are files, it will Index them Napster looks for files in the "share" area of the users com-
user logs in with a user name and password It was an Intermediated peer-to-peer network.

What did Napster do?
But Internet sharing is not new. It involves:

- Dynamic routing
- Resilient to outages
- Decentralized
- No central administrator

Four principles to set up an anonymous network for the exchange of files.

Other file-sharing systems: Gnutella

Therefore not anonymous.

Because they do not have the address of the supplier of the file, they are

connections. Questions are anonymous.

A question from one machine is routed through the network of

Each machine builds connections with a number of other machines.

Talk to the whole network.

Once a machine knows the address of another machine, it can

the network is both a client and a server.

Gnutella is a completely peer-to-peer network. A machine on

other file-sharing systems: Gnutella

Visibility causes problem with copyright holders

Cost of running a server

Both WWW and Usenet allow to share files over the Internet.

Change any page.

WWW servers that allow people to edit pages. Anyone can

Not strictly a file share system.

Other file sharing systems: WikI