

Why bother?

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

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

What did Napster deal with?

Allowed people to share mp3 files.

MP3 is format to encode music in computer files, developed by the Fraunhofer Institute of Erlangen in the early 90s.

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

What did Napster do?

It was an intermediated peer-to-peer network.

- User logs in with a user name and password
- Napster looks for files in the "share" area of the user's computer, if there are files, it will index them
- User can search index for the music that others have contributed.

Whole software proprietary, i.e. no source code. Clone software was written...

Trouble

Much of the material shared has been produced on a for profit basis. Copyright holders want to have revenue.

- consumer purchasing a copy of the item for private, repeat-able performance.
- consumer may share this with a limited number of people.

If data can be shared "freely" with an unlimited number of people, then the copyright holders are in trouble.

But sharing is not new

When libraries were invented, some thought this was the end of the book industry.

The difference with the Internet is that the cost of sharing, both for sharer and recipient, is virtually zero.

But Internet sharing is not new

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

- cost of running a server

- visibility causes problem with copyright holders

Other file sharing systems: gnutella

Gnutella is a completely peer-to-peer network. A machine on the network is both a client and a server.

Once a machine knows the address of another machine, it can talk to the whole network.

Each machine builds connections with a number other machines. A question from one machines is routed through the network of connections. Questions are anonymous.

Answers have the address of the supplier of the file, they are therefore not anonymous.

Other file sharing systems: freenet

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

- decentralized

- redundant

- uses cryptography

- dynamic routing

But searching is non-existent or difficult.

Other file sharing systems: wiki

Not strictly a file share system.

WWW servers that allow people to edit pages. Anyone can change any page.

Application: the wikipedia, <http://www.wikipedia.com>