

Free Riding on BitTorrent is Cheap

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How Easy Is It To Cheat?

- Typical p2p system (decentralized, resources are shared between peers)
- Seeders upload to all peers, leechers upload only to those peers from which they also get some pieces in return
- Each leecher periodically transferring some data to neighboring peers for free
- This is done in order to allow newly joined peers without any pieces of the torrent to bootstrap
- We have a weakness!

BitThief

- Custom client that never contributes any real data
- A remote peer always assume that it interact with a newly arrived peer that has just started downloading
- Try to get many remote peer addresses as quickly as possible and open connections
- Do not apply *rarest-first* policy, fetch whatever they can get

Results

- Free riding is possible!
- This client was not banned by any tracker
- Based on tests, it is sometimes faster than the original implementations

Summary

- We can cheat easily, but we won't, because as more and more users decide to free ride, the usefulness of a p2p system will naturally decline
- It is a good paper, if you are interested about the topic, you should read that
- It is a great summary