

# songfeeds

decentralized music distribution  
with easy donations

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part i

overview of copyright

# copyright law

the right of an author to publish their work,  
exclusive of all other persons.

- includes control over derivative works, and the right to attribution
- authors usually sell their rights to a publisher
- copyright terms over the years:
  - 1790: 14 years (+ possible 14 year extension)
  - 1976: life + 50 years
  - 1998: life + 70 years (incl. existing works)

# arguments for strong copyright

- provides a business model for record companies
- "you wouldn't download a car"

# arguments for weaker copyright

- freedom of speech
- artists make most of their money through concert ticket sales
- tradeoffs have changed: in the digital age, the right to copy and share is worth something to ordinary people
- excesses!

## music copyright in action

- in 2006, the *On-line Guitar Archive*, a collection of user-contributed guitar tabs, was served at takedown notice by the National Music Publishers' Association
- in 2013 (after 6 years of trials), Jammie Thomas-Rasset was fined \$220,000 for downloading and distributing 24 songs

part ii

my project

# primary goal

new economic model for music

- allow sharing
- support artists through donations
- donations partly automated on the client side



## secondary goals

- open protocol
- free software implementation
- allow artists to host their own music, or select their own independent host (similar to email)
- minimize overhead of running a server

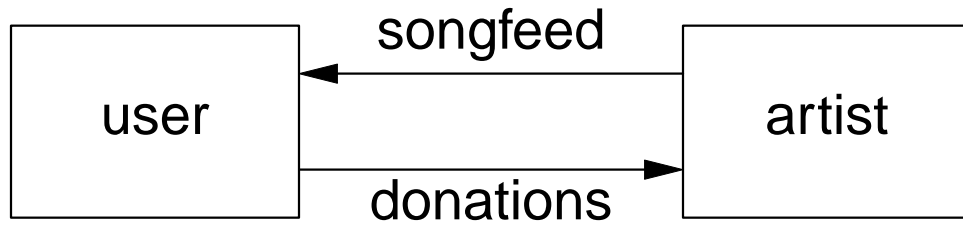
# songfeeds

- extension to RSS
- feeds include a bitcoin address for donations
- music is licensed under a Creative Commons license
- client integrates with music player and bitcoin wallet to suggest donations on a monthly basis

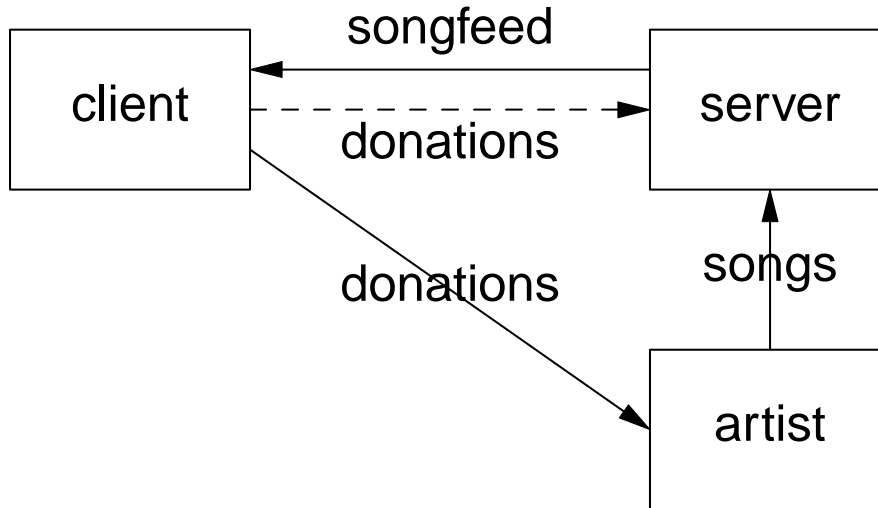
# example feed

```
<?xml version="1.0" encoding="UTF-8"?>
<rss version="2.0" xmlns:atom="http://www.w3.org/2005/Atom">
  <channel>
    <atom:link href="http://songfeeds.malchik.net/rss/feed.rss"
    <title>stoneface priest</title>
    <link>http://songfeeds.malchik.net/rss/feed.rss</link>
    <songfeed:donate type="btc:artist" addr="12edfiz5f4kZrc3T6y8
    <songfeed:donate type="btc:server" addr="1MPakbTUjKwgKHgpS4s
    <copyright>CC-BY</copyright>
    <item>
      <title>take control</title>
      <pubDate>Tue, 28 Mar 2017 00:00:00 +0000</pubDate>
      <guid isPermaLink="false">songfeeds.malchik.net/music/ston
      <songfeed:artist>stoneface priest</songfeed:artist>
      <enclosure type="audio/mpeg" url="http://songfeeds.malchik
    </item>
  </channel>
</rss>
```

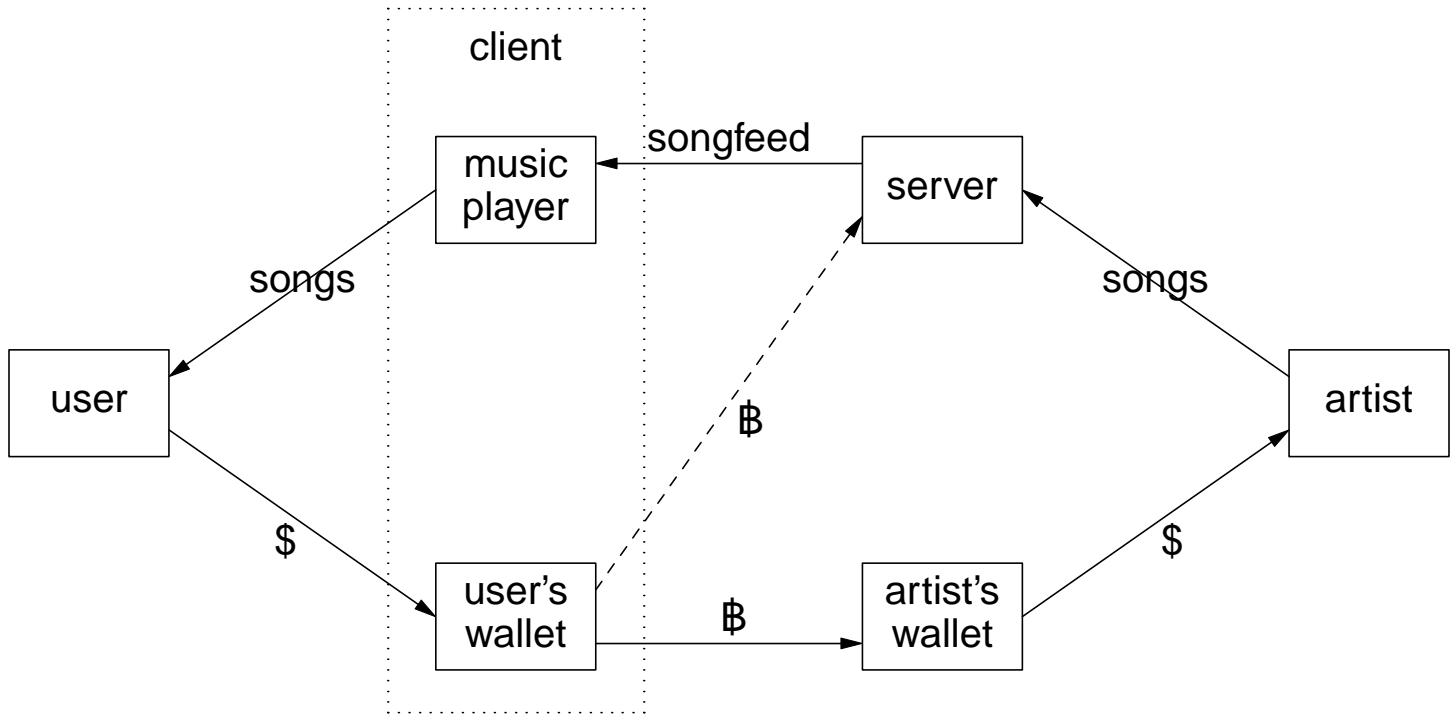
# architecture



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# architecture



# client implementation

- will run on Linux
- implement plugin for MPD or Quod Libet
  - fetch songfeeds and add music to library
  - keep track of donation addresses and listening data
  - suggest donations to the user (bi)monthly
- use Blockchain.info API
- allow configuration of donation suggestion algorithm

## future work

- use BitTorrent for downloads
- factor recent income into donation algorithm
  - weigh donations in favor of artists with lower recent income
  - requires a unique mapping between artists and donation addresses
- clients for other platforms
- user-friendly web interface for artists



# bibliography

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- [http://news.bbc.co.uk/2/hi/uk\\_news/magazine/5305520.stm](http://news.bbc.co.uk/2/hi/uk_news/magazine/5305520.stm)
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THE END