On the Feasibility of Opportunistic Ad Hoc Music Sharing

Barbara Keller, Philippe von Bergen, Roger Wattenhofer, Samuel Welten

Computer Engineering and Networks Laboratory

Information Technology and Electrical Engineering Department

ETH Zürich, Switzerland

Bob























→ Go back to share locally







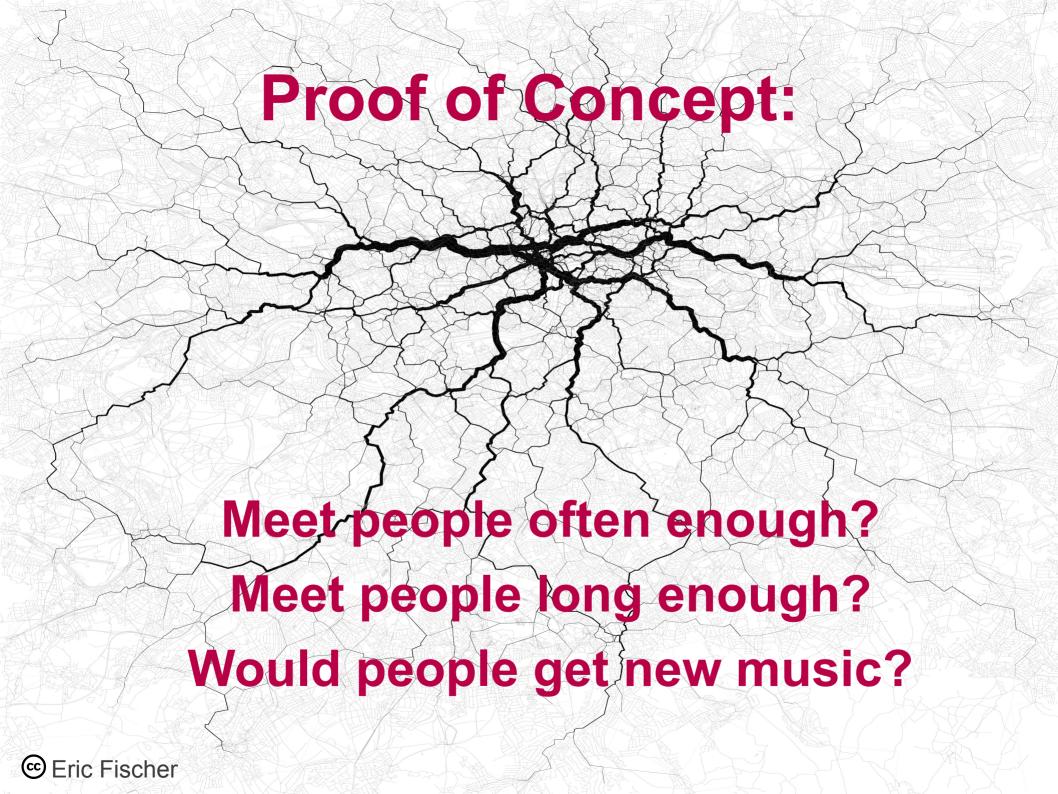






Nice Story, but...

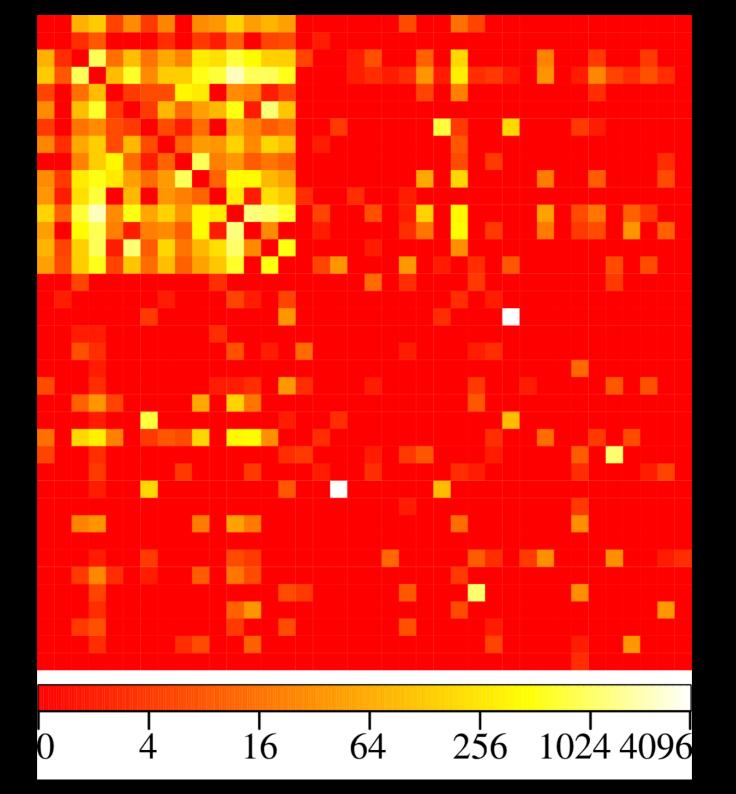
...what has this to do with the Nokia Mobile Data Challenge?



Meetings

Distance < 30 meter (50 meter) time < 10 min

Maximal	Minimal		Mean meetings per
distance	duration	of meetings	user
50 meters	s 1 secon	d 30556	804
50 meters	s 90 second	s 25925	682
50 meters	s 300 second	s 18618	3 490
30 meters	s 1 second	28804	758
30 meters	s 90 second	s 24390	642
30 meters	s 300 second	s 17562	462



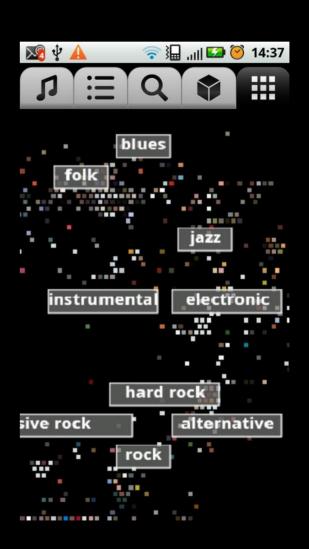
Meetings √ Sharing?

How to formulate requests?

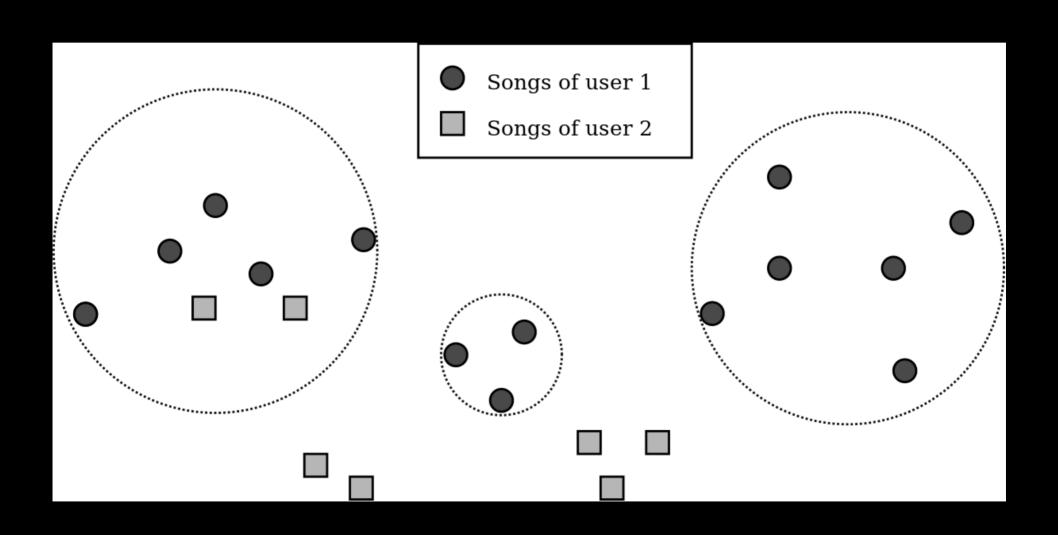
- People may do not precisely know what they are looking for
- If request is too specific the probability of finding a match is small
- → define music taste

Jukefox





Music Taste



Confession

Used music of Jukefox user profiles instead of the actual logged music.

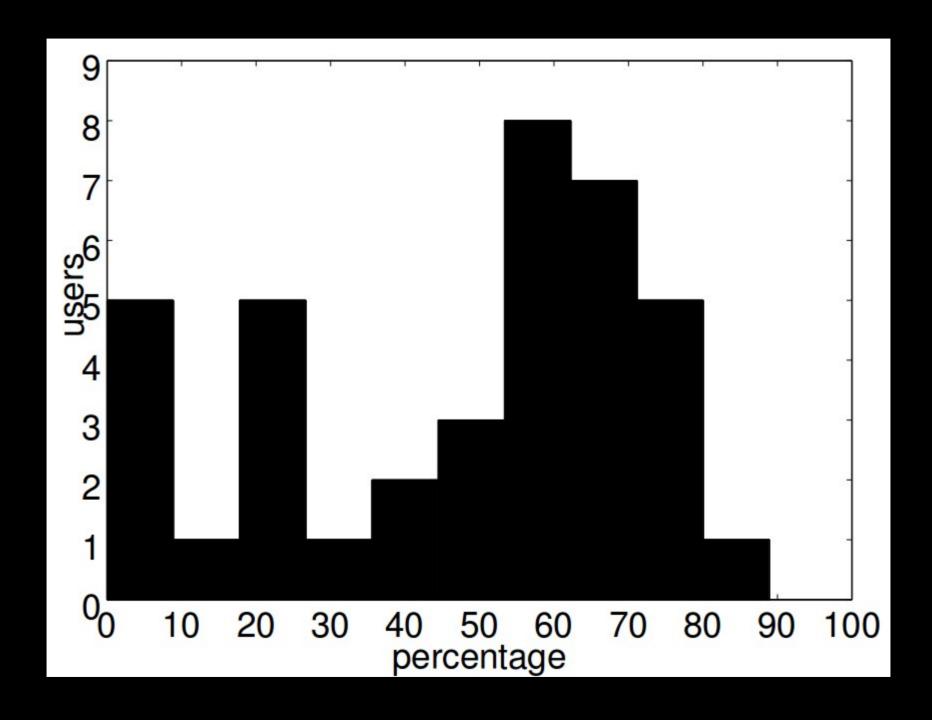
38 collections with 9 to 827 songs (mean: 264)

instead of 15 collections with 1 to 964 (mean: 108)

Target Set

Music which matches my taste and is in the network of 9025 songs.

→ On average 480 songs per user



Sharing Summary

Overall 7828 songs would have been shared Some songs shared up to 11 times
On average a user received 206 new songs

It works!











Thank you!

Questions and Comments?