Cathedral vs. Bazaar
The Big Question
Do OSS communities look like this
The Big Question
Or like this

[Diagram with interconnected nodes labeled with names like joe, john, sal, will, rich, tom, jeff, jenn, fred, bob, and more.]

2
Research Questions
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2. Is the organizational structure related to the type of discussion?
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3. Are the communities reflective of collaboration patterns?
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4. Are the communities focused on particular tasks or subsystems within the code?
Data Gathering & Analysis

- **email**
  - parse, filter, de-alias

- **CVS**
  - parse logs, download files

- **Db**
  - email queries
  - commit queries

- **email queries**
  - social networks
  - cs alg

- **social networks**
  - collab networks

- **collab networks**
  - groups

- **Compare**

- **Results**
RQ1 - communities do form

Distributions of modularity from 3 months social network snapshots
Pretty Pictures Please...
Is this real?

- Compare to the null hypothesis: people associate at random with whoever they meet, not in some structured way.
- Similar to what we expect to see in the Bazaar model.
- Random graphs with the same degree distribution.
- ...so, in these random graphs, do we still see clustering?
Graph Rewiring
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Do this $m^2$ times
Yes, it’s something!

- Do this a BUNCH of times and look at the distribution.
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RQ2 - Org. is different

More modular structure when discussing the software directly

![Modularity of PostgreSQL over time](image-url)