Research Challenges

- What is the Web culture?
  - Design/use/analysis are connected to "cultural stereotypes" (Think HSBC ads)
    - What are the cultural stereotypes in the emerging online community?

- What level of "knowledge" is needed by Web users?
  - Is this dependent on application? User community?
  - Is expressivity a plus, minus, non-issue?
    - Especially in an open system (previous AI systems were "closed"

Research Challenges

- Computational challenges as "end user" support
  - Scaling
  - HCI (What do we show "real users"?)
- What are the trade-offs in use
  - Virtually all AI literature assumes a high-cost, high-value model
  - The Semantic Web is showing us alternative models
    - What are the trade-offs, analyses
- If more and more of what we see includes integrated data from multiple sources, will that change the trust models
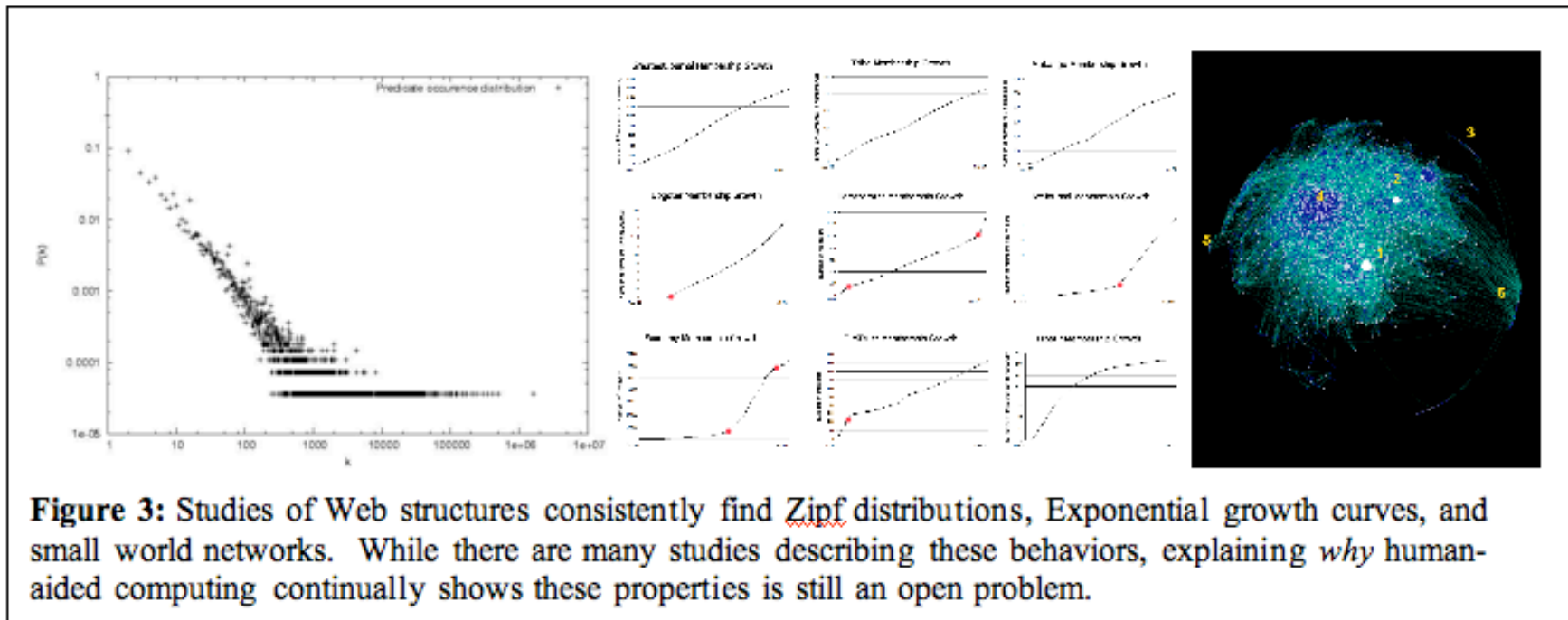 - Do we need to expose provenance? Will "provider" model be changed?

Research Challenges

- Who are the "experts"
  - What level of expertise is needed to become "dangerous" with this new technology?
    - What is the "ecosystem" (what is the equivalent of Web developer/web master/web user?)
- If more and more of what we see includes integrated data from multiple sources, will that change the trust models
  - Do we need to expose provenance? Will "provider" model be changed?
- Formal vs. informal models of ontology
  - I didn't discuss "folksonomy" but a key aspect is "social context" (Hendler & Golbeck, 08)
    - Can social contexts use

Research Challenges

Figure 3: Studies of Web structures consistently find Zipf distributions, Exponential growth curves, and small world networks. While there are many studies describing these behaviors, explaining *why* human-aided computing continually shows these properties is still an open problem.

The Biggie