

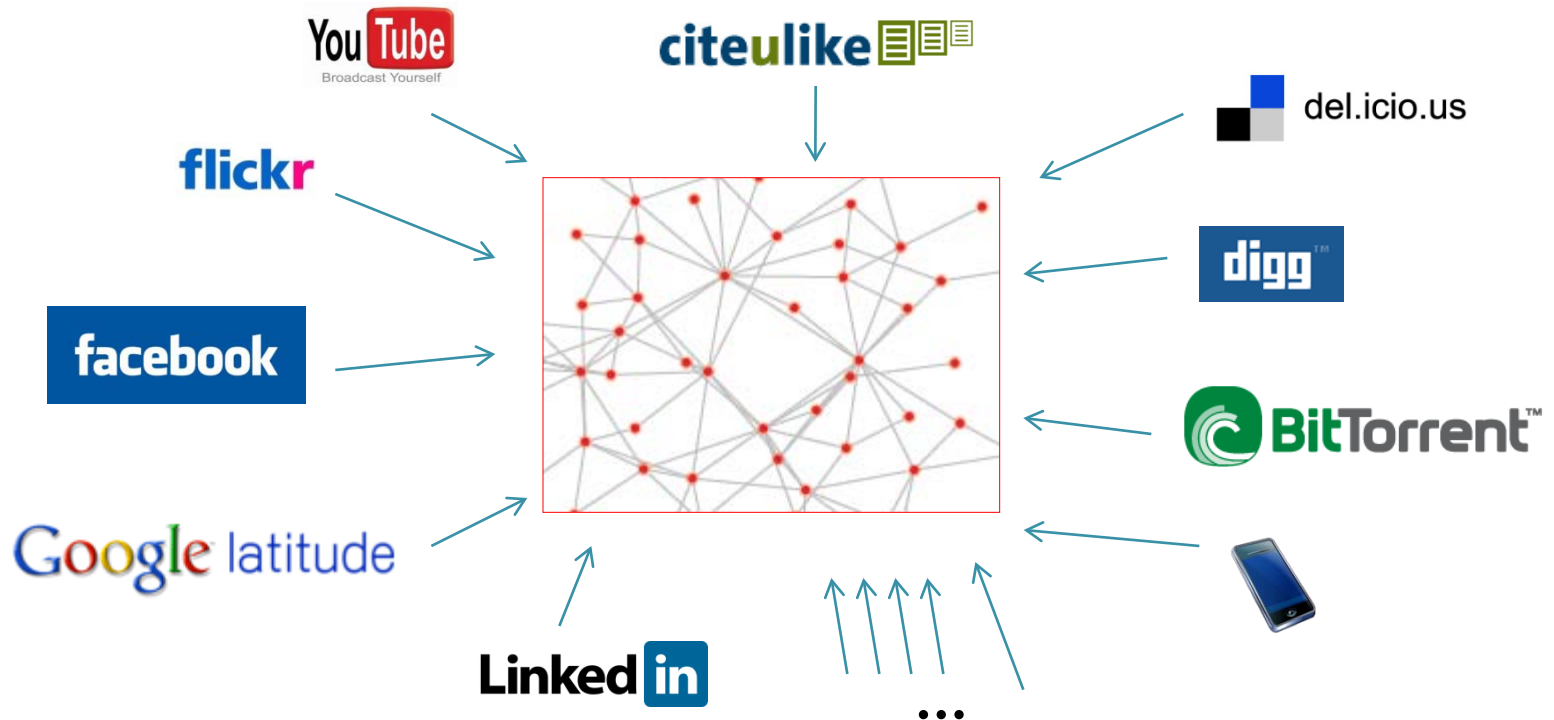
# Social Information at the Core of System Design

Adriana Iamnitchi

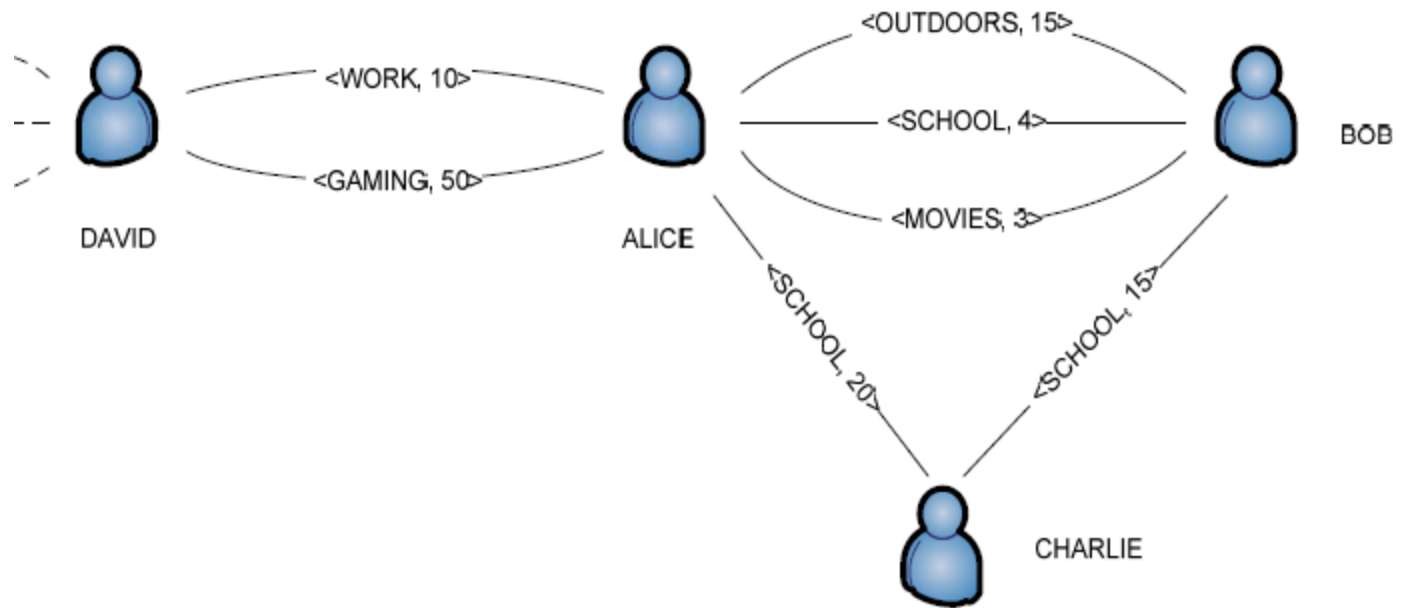
University of South Florida

[anda@cse.usf.edu](mailto:anda@cse.usf.edu)

Position: The avalanche of social information readily available can be exploited in the software stack for distributed system and application design.



# Approach: A (geo-)Social Service that builds and maintains a labeled, weighted social multi-graph



# Novel Applications and Computing Infrastructures

- Social information can be distilled into:
  - Social incentives/social solidarity
  - Trust
  - Hints for interest-based resource management
- ..and can be applied to (of many examples):
  - Recruiting computational power for parallel and distributed computing:
    - personal clouds (nebulas)
    - **energy savings** by moving jobs out of data centers
  - Identifying self-serving rings of voters (**security**)
  - Better **context-awareness**
  - ...

# Challenges

- Privacy of **aggregated** data
  - Privacy seen as **contextual integrity**
  - Protection against big brother in challenged democracies
- Social data ownership
- (Distributed?) management of social data
- Supporting services that use social information
- Meaningful novel applications:
  - Disaster recovery?
  - Search and rescue in developing regions?