SWEO

*An Overview of the W3C **Semantic Web Education and Outreach** Interest Group*

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What is SWEO?

- Semantic Web Education and Outreach
- World Wide Web Consortium (w3c) Interest Group
- Goals
  - Assemble educational materials for all consumers
  - Increase awareness and encourage adoption of SW technologies
- Details
  - Weekly teleconference meetings
  - 35 members, 23 organizations
  - http://www.w3.org/2001/sw/sweo/

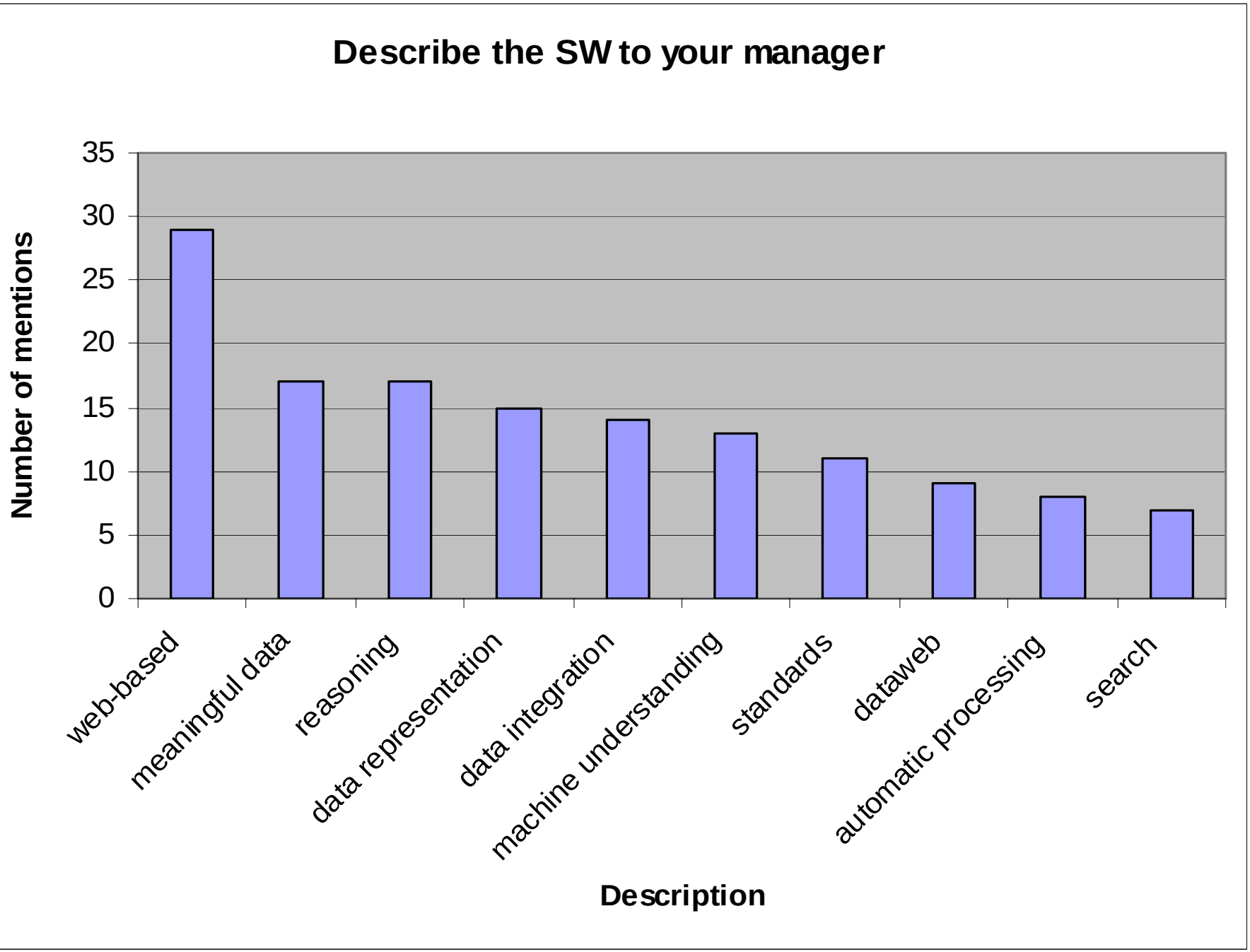
SWEO Tasks

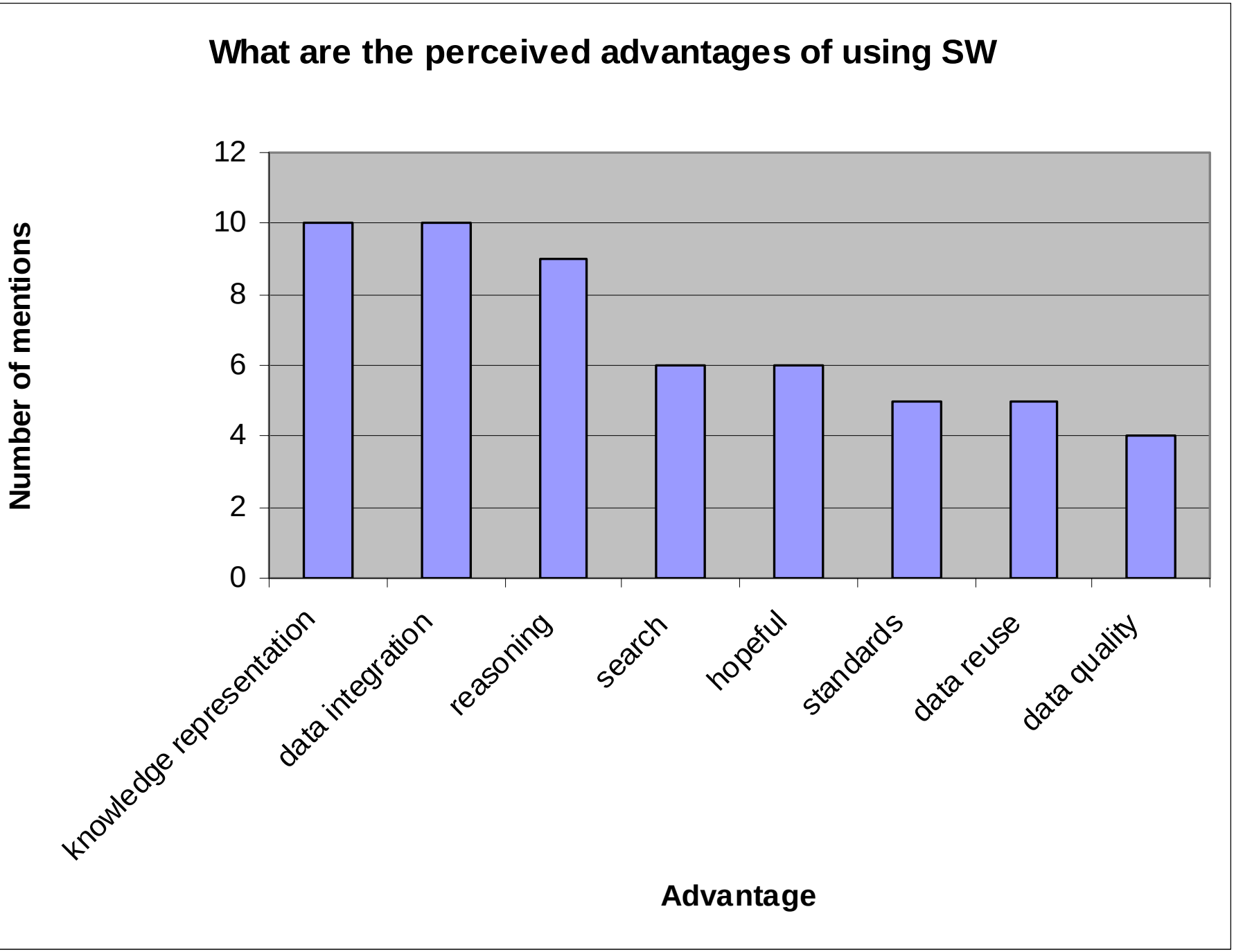
- Enterprise Survey
- Community Projects
- Information Gathering
- Use cases and case studies

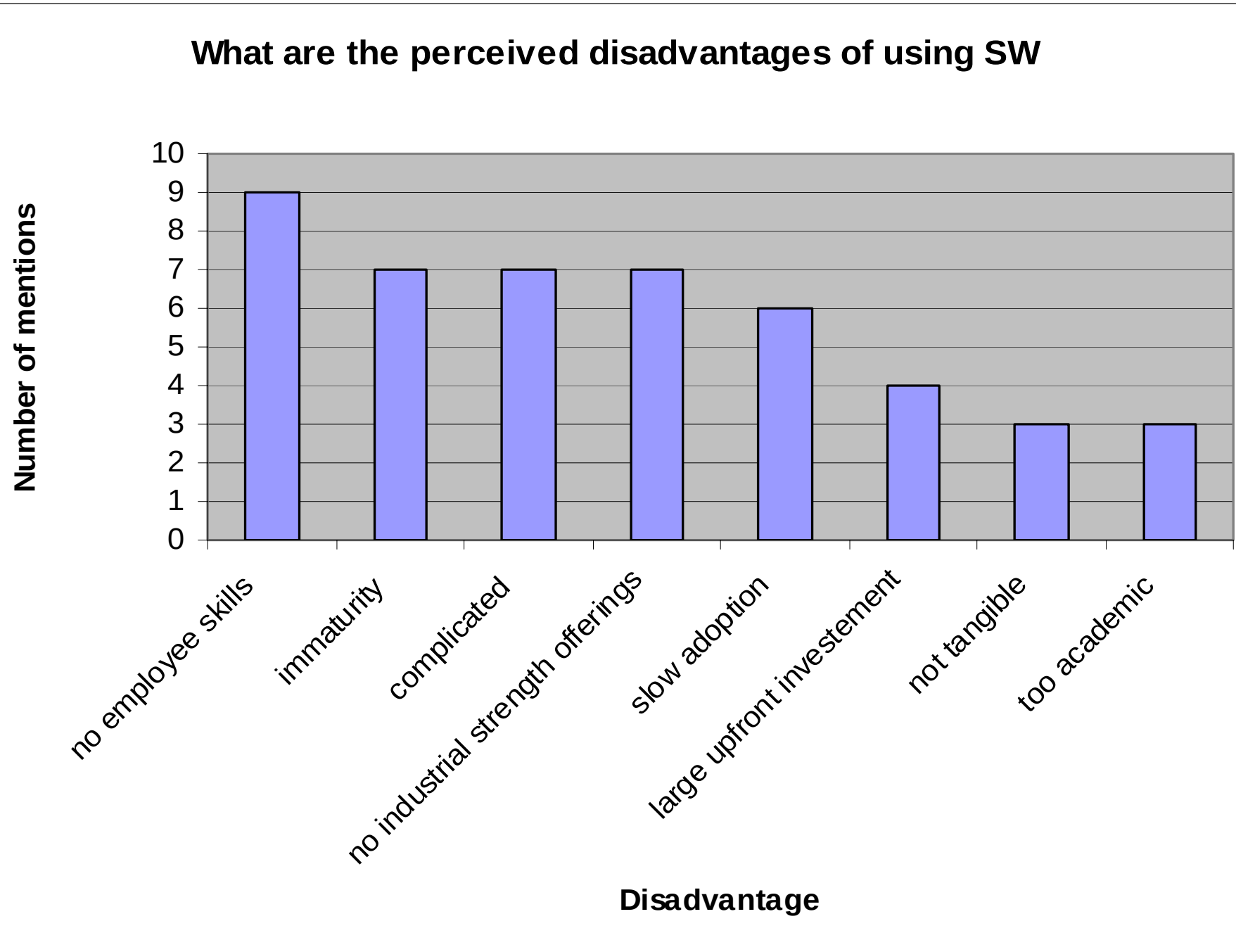
Task: Enterprise survey

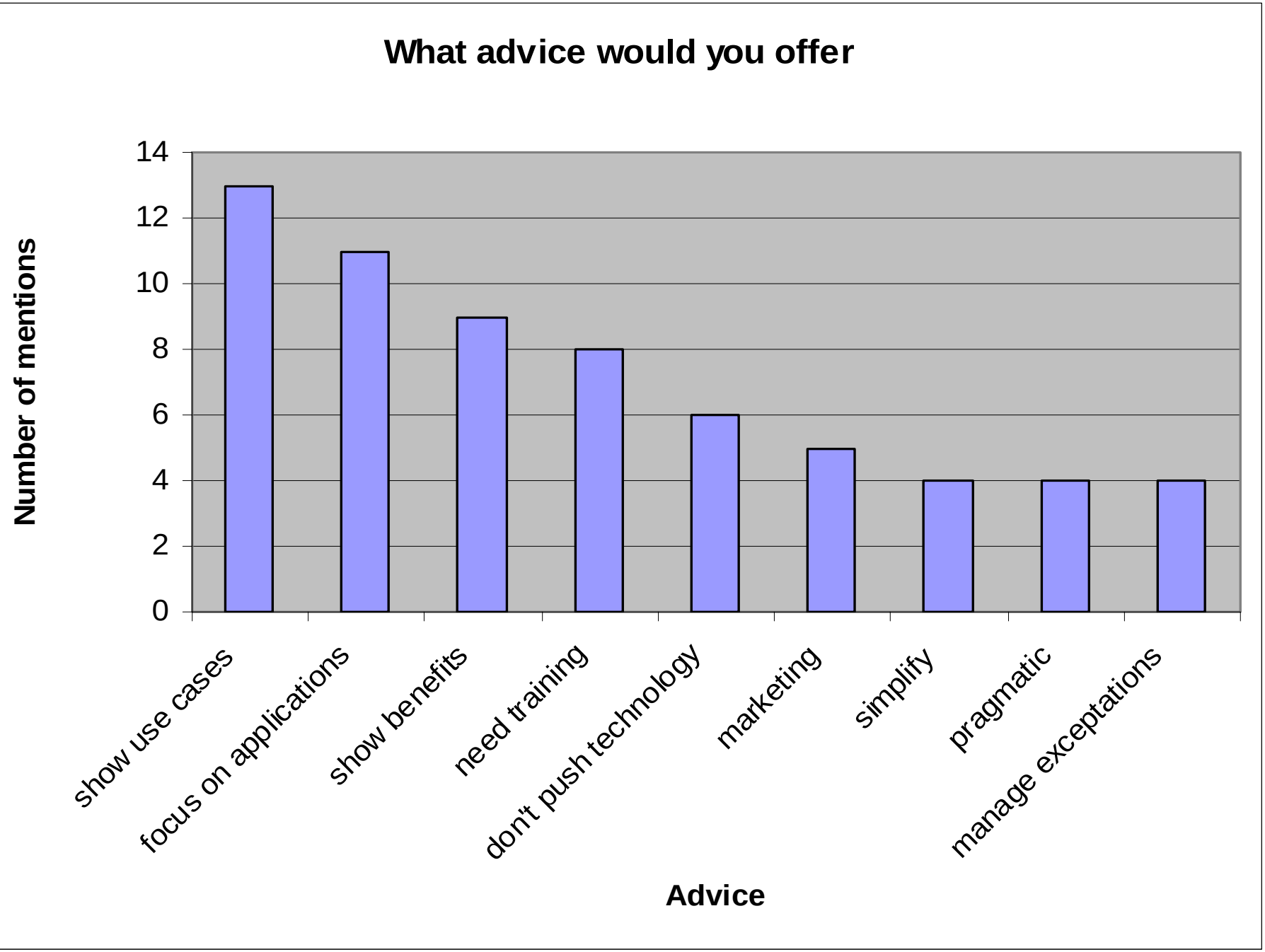
- Goal: To gauge perceptions of the Semantic Web in order to prepare effective educational materials
- 50 respondents
- 10 countries,11 industries, many job roles
- Most familiar with the Semantic Web

- Results…


Describe the SW to your manager
Number of mentions
35
30
25
20
15
10
5
0
web-based
meaningful data
reasoning
data representation
data integration
machine understanding
standards
dataweb
automatic processing
search
Description


What are the perceived advantages of using SW
Number of mentions
12
10
8
6
4
2
0
knowledge representation
data integration
reasoning
search
hopeful
standards
data reuse
data quality
Advantage


What are the perceived disadvantages of using SW
Number of mentions
10
9
8
7
6
5
4
3
2
1
0
no employee skills
immaturity
complicated
no industrial strength offerings
slow adoption
large upfront investement
not tangible
too academic
Disadvantage


What advice would you offer
Number of mentions
14
12
10
8
6
4
2
0
show use cases
focus on applications
show benefits
need training
don't push technology
marketing
simplify
pragmatic
manage exceptations
Advice

Enterprise survey: Encouraging signs

- Pilots/products from well-established software and service providers
  - HP, IBM, Oracle
- Lots of activity in the Life Sciences
- Starting to see more Startup activity

Task: Community projects

- Goal: To build useful Semantic Web applications and rally developers and communities around them
- Project proposals solicited from the community
- 10 proposals received, 4 officially endorsed
  - FOAF based White Listing for Fighting Spam
  - Powder Browser Extensions
  - Interlinking Open Data on the Semantic Web
  - Knowee/Contact Organizer

Project: FOAF-based white-listing for fighting spam

- Goal: To reduce the amount of spam
- **F**riend **o**f **a** **F**riend – self-published RDF data containing contact information and relationships with others
- Use relationships extracted from FOAF to filter spam
- Integrate with existing filters like SpamAssasin

Project: POWDER browser extension

- Goal: To enable the browser to act upon content descriptions
  - this site contains adult content
  - all images on this site are suitable for children
  - this site uses a Creative Commons licence
- POWDER: Protocol for Web Description Resources
- Description of page embedded in content
- Browser extension checks for description and acts according to personal settings

Project: Interlinking Open Data

- Goal: To make large volumes of interesting data available as RDF for applications to consume
- Data sources
  - DBPedia.org: structured data from Wikipedia
  - DBLP bibliography: computer science publications
  - Geonames Ontology: place names
  - dbtune: music

Project: Knowee/Contact Organizer

- Goal: Organize contacts
- Leverage existing data in microformats (XFN, hCard), RDF data (FOAF)
  - Microformats converted to RDF for data integration

Task: Information gathering

- Goal: Assemble a collection of educational materials for readers from different backgrounds and varying levels of familiarity with the Semantic Web
- Articles, papers, tutorials, tools, etc.
- Possibly include a ratings system to prioritize the best content

Task: Collecting use cases and case studies

- Goal: To assemble a collection of problems solved by the Semantic Web, browsable by industry and application type
- Use cases are SW prototypes
- Case Studies are deployed SW systems used for day-to-day operations

Example case studies

- *Healthcare*: Reduction of errors in radiological procedure orders (Agfa Healthcare, Belgium)
- *Telecom*: B2B Integration with Semantic Mediation (British Telecom, UK)
- *Oil & Gas*: Ontology-driven information integration and delivery (Chevron Information Technology Company, US)

Example use cases

- *Public Health*: Community health surveillance via data integration and query (University of Texas, US)
- *Enterprise Content Management*: Faceted search on multimedia resources (Oracle/Siderean, US)
- *Cartography*: Geographic referencing framework (Ordnance Survey, UK)

- Also: Auto, Finance, Aerospace, and more

Eating our own dog food

- SWEO will use Semantic Web technologies to organize information
  - Faceted browsing of resources
    - different industries
    - different roles within an organization
    - different levels of familiarity with technology and the SW
  - Queryable endpoints
    - data can be reused in other applications

Other activity

- Discussing and planning messaging strategy
- Creating brochures for distribution at conferences
- Arranging regular local face-to-face meetings
- Publishing official Semantic Web FAQ

Conclusion

- Making good progress
- Continually publishing new content (and useful views of existing content)

- Always looking for new members