## Identifying Expertise

### How would you identify experts?

- Ad hoc
- "Proving" expertise through a performance metric
- Based on opinions of members
  - Management, peers
  - All internal stakeholders

### Social Approaches to Identifying Experts

- Constituency
- Market Perception
- Information Theory
- Network
Identifying Expertise

Constituency Approach

- Expertise is situated in context
- Every expert has a constituency
- Constituents have evaluation criteria
- Evaluation ranges from lax to rigorous

Constituency Approach (cont2)

- Type 1 experts
  - "Snake oil salesmen"
- Type 2 experts
  - Nationally recognized
- >>Expertise is a function of the social referent!

Market Approach

- Experts (service provider)
- Consumer (of information)
- Transaction between an expert and a consumer
- Important in advertising research
  - Study of celebrity endorsers
Identifying Expertise

Market Approach (cont2)

• Expertise is:
  - hard to measure
  - represents a multi-termed construct
• Expertise can be measured in terms of:
  - (1) "expert" (2) "experienced" (3) "knowledgeable" (4) "qualified" (5) "skilled."

Information Theory Approach

• Information senders (expert)
• Information receivers (novice)
• Based on decision theory

Process
  - Expert renders an opinion
  - Opinion is "sent" to a non-expert
  - Non-expert receives opinion
  - Non-expert chooses an appropriate course of action
Identifying Expertise

Information Theory Approach (cont3)

• Clarifications
  - Accuracy is a function of the expert
  - Performance takes into account the receiver’s characteristics
  - Performance of the expert is modeled as a joint probability function of expert characteristics and receiver goals and evaluation criteria

Network Approach

• Organization as network of interacting agents
• Consistent with constituency view
• Evaluation is based on ability of expert to "solve" organizational problems
• Local type 2 experts

Identifying Experts in Organizations

• Decide on an area of expertise and information
• Use network analysis
• Determine who retrieves information from whom
• Rank order the results
Identifying Expertise

Network Analysis

- Method from sociology
- Measures strength of relations between individuals - e.g., communication, information, money, power, trust
- Networks represented in graphic or mathematical form

Graph Theory Example

Organizational Networks

Central Member of Organization

Manager

DB file

Benefits of Method

- Systematic
- Repeatable
- Collects data from entire organization
- May yield surprises
- Saves time
Identifying Expertise

Step by Step Method

- Identify type(s) of knowledge
- List members in network
- Create questions in survey
- Scaling questions
  - 0-1, 1-5
- Collect data and tabulate
- Rank order

Summary Network Approach

- Can be used to locate "hidden" experts
- Provides insight into information dependencies
- Useful in implementation of expert systems
- Can be used to located computer based info as well as human experts

Summary of Social Aspects of Expertise

- Expertise not strictly a function of expert
- Expertise resides in context
- Need to understand the characteristics of social referent
- Performance is joint function of expert and social group
- Expertise ranges from lax to rigorous

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