Applying Epistemology to Information Policy Decisions

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for a panel on
Philosophy and information science: The basics
http://www.asis.org/Conferences/AM06/papers/164.html
ASIS&T 2006 -- Austin, Texas
November 6, 2006
Humanistic Inquiry and Information Science

- History and Philosophy of $X$
  - where $X =$ Physics, Chemistry, Medicine, Mathematics, Economics, etc.

- Research Group on the History and Philosophy of Information Access
  - http://www.sir.arizona.edu/research/
Philosophy and Information Science

- **Value Theory (Ethics, Aesthetics, etc.)**
  - What sorts of things are good?

- **Metaphysics**
  - What sorts of things are there?

- **Epistemology**
  - How do we know about things?
Epistemology and Information Science

“A new discipline [social epistemology] must be created that will provide a framework for the effective investigation of the whole complex problem of the intellectual processes of society.”
– Margaret Egan and Jesse Shera (1952)

“Lack of knowledge of epistemology is possibly the greatest barrier to improving library and information science.”
– Laurence Heilprin (1968)

Information Policy Decisions

- Which intellectual property laws should we adopt?
- Which collection management policies should we have?
- Which techniques should we use to evaluate information on the Internet?
Our goals when we seek information

- acquire knowledge
- acquire true beliefs
- acquire justified beliefs
- avoid false beliefs
- gain understanding
- gain wisdom
- etc.
“Where’s your section of books that tell you simple things you already know?”
Worries about Epistemology from Library Science

“A possibility is to measure the library educational effects on knowledge … However, … it is difficult to isolate library effects from effects of formal educational institutions, the family, peers, and the community.”
– Morris Hamburg, Leonard Ramist, Michael Bommer 1972

“It is irrational to advance one end rather than another simply because it can be more accurately estimated.”
– John Rawls 1971
Worries about Epistemology from Knowledge Management

“The objective of KMS is to support creation, transfer, and application of knowledge in organizations.”
– Maryam Alavi and Dorothy Leidner 2001

“It is unnecessary for the purposes of this paper to engage in a debate to probe, question, or reframe the term knowledge … from the perspective of ancient or modern philosophy.”
– Maryam Alavi and Dorothy Leidner 2001
Am I in the *Matrix*?
Am I on the *Truman Show*?
Applied Epistemology

Applied ethics is “that part of ethics that gives particular and direct attention to practical issues and controversies.”

- Routledge Encyclopedia of Philosophy 1998

Critical Thinking (Battersby 1989)

Philosophy of Science (Levi 1967, Maher 1993)

Evaluating Social Policies (Goldman 1999)

Epistemic Values

- acquire knowledge
- acquire true beliefs
- acquire justified beliefs
- avoid false beliefs
- gain understanding
- gain wisdom
- etc.
Decision Analysis

- What are the alternatives?
- For each alternative, what is the outcome likely to be?
- Which of these outcomes is preferable?
  - In other words, what are our objectives or values?
A Value Hierarchy for picking a job
An Epistemic Value Hierarchy

- Good Epistemic Outcome
- Knowledge
- True Belief
- Error Avoidance
- Justified Belief
Value Theory in Epistemology

- Epistemic goals (James 1896, Alston 1985, Goldman 1999)
- Why knowledge is more valuable than true belief (Plato 380BC, Kvanvig 2003)
- Epistemic utilities of scientists (Levi 1967, Maher 1993)
Epistemology can help us determine the possibilities

- Identify what things are epistemically valuable.
- Identify constraints on how these epistemic values are structured.
  - Constraints on how these epistemic values fit together into a hierarchy.
  - Constraints on what their relative importance is.
  - Constraints on how they should distributed over topics, over time, and over people.
- Identify default structures.
Constraints on Distributions

- Over Topics
- Over Time
  - Speed versus Reliability
    - Checking Multiple Sources
  - Speed versus Amount
    - Interlibrary Loan
- Over People
  - Dissemination versus Amount
    - Intellectual Property Law
    - Library Outreach
Impact

- Help people make better information policy decisions.
- Help people make other decisions where epistemic outcomes are important.
- Identify and answer important questions for pure epistemology.
For more on epistemology and information science (including references), see: