Social Knowledge and the Web

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"Imagine a world in which every single human being can freely share in the sum of all knowledge."

- Wikimedia Foundation

What is Social Knowledge?

- Traditionally, epistemology has focused on individuals.

- Social epistemology investigates the social dimensions of knowledge

- Social Knowledge = Knowledge held collectively by more than one person

Examples

a) 'Einstein knew $E=MC^2$'

b) '...the research team knew that surface silanols initiate aziridine polymerization off the surface with catalytic amounts of acetic acid'

c) 'The Ancient Chinese knew that *artemisia annua* is a cure for malaria'

Reductive accounts

- Anthony Quinton:

"Groups are said to have beliefs, emotions and attitudes and to take decisions and make promises. But these ways of speaking are plainly metaphorical. To ascribe mental predicates to a group is always an indirect way of ascribing such predicates to its members. (1976, p.19)"

- "The group knows P" is shorthand for "Individual members of the group know P"

Problems with reduction

- Discursive dilemmas - Pettit (2007)

	Committed action?	Contractual obligation?	Liable?
Judge 1	Yes	Yes	Yes
Judge 2	Yes	No	No
Judge 3	No	Yes	No
Majority Decision	Yes	Yes	No?

Problems with reduction

- Bird (2010?) Stored knowledge

- Not only is SK not reducible to IK, it doesn't even depend on it

- Storage – books, databases.

- Production: Automated Weather Systems

Towards a non-reductive account

- Bird (2010): Functional definition of knowledge – input to deliberation and action

- See also Hawthorne and Stanley (2010): knowledge as a norm for action.

- Social knowledge is input to social deliberation and social action

- In the same way that individuals have certain cognitive faculties whose to generate knowledge for that individual, collectives have practices and institutions whose purpose is to generate social knowledge.

Storage

according to Bird,

> '...what is social is not just a collection of individuals ... The material means of coordination are also part of the social. And these can play a role in the generation and storage of social knowledge. Social knowledge can be stored, for example, not only in peoples' minds, but also in libraries and electronic databases; it can be produced both by scientists and by automated systems.' (p11)

Storage

- The sum of human knowledge is clearly too great for one person (cf. Thomas Young) and even distributed across the global population.

- Paper, analogue and digital storage have allowed individuals and collectives to continue accruing knowledge beyond their natural capacity.

Social Knowledge on the Web

- Collectively held by web users
- Input to social deliberation and action
- How does it differ?

1. Global Social Knowledge

- Reconfigured access to Social Knowledge

- Without the web, we might be able to increase SK relative to specific groups, (as above) but not create truly global SK

- The web allows any web user to access any item of knowledge on the web via a URL

Visibility and input to action and deliberation

- A qualification:

- Knowledge that is obscured on the third page of search results, or in a walled garden, is clearly different to highly visible knowledge, published on the open web.

- Perhaps only when published on the open web, with SEO, does SK range over all web users

2. Offloading IK, relying on SK

- As we offload knowledge onto the web, individual knowledge becomes less important.

- We increasingly consult the web before acting on some information, even if we think we know it to be true

- The cost of checking SK is outweighs the uncertainty of IK

- SK becomes the dominant source of input to action on an individual and social level

- More or less knowledgeable?

- Appraisal of an individual's epistemic state. A decrease in IK isn't necessarily a bad thing, as it may free up space for other cognitive tasks – reasoning and acting.

- Knowledge about knowledge; knowing where to find knowledge as and when it is needed.

Risks?

WHEN WIKIPEDIA HAS A SERVER OUTAGE, MY APPARENT IQ DROPS BY ABOUT 30 POINTS.

HEC and individual knowledge

- Hypothesis of Extended Cognition: Some objects in the external environment can be seen as extensions of the mind; if they function with the same purpose as the internal processes.

- Social knowledge on the web substitutes internal process of knowledge use.

- If this is true, then my IK is the same as whatever SK I have access to.

3. Co-ordination of social action

- Externalised knowledge used to be relative to an individual (also used to be generated by that individual)

- With the web, my externalised knowledge is often the same as yours; we are all using the same social knowledge, rather than our own, self-stored individual knowledge.

- This enables greater social deliberation and action, which again increases the emphasis on social knowledge

Social Knowledge on the Semantic Web

- Principle of closure under known entailment.

- If Smith knows P, and Smith knows P-> Q, then Smith knows Q.

- Not so for social knowledge. Two items of SK can be disparate

- Semantic Web may allow such entailments to be made (semantic searches, inference engines)

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