

Expertise in Online Epistemic Communities

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ENPOSS - August 24-26 2016 - Helsinki



Online Epistemic communities

- ▶ (*Online*) Here, only Web 2.0 communities.
- ▶ (*Epistemic*) Their purpose is to share or generate knowledge.
- ▶ (*Communities*) They are specific groups which do not overlap physical or institutional ones. They share and accept specific rules and guidelines.

We will only focus on two communities for this talk: Wikipedia and one community of the StackExchange network (TeX.StackExchange).

Social Epistemology

- ▶ Inspired by Goldman (1999) (at least for one branch of Social Epistemology).
- ▶ Two main purposes:
 1. To argue against individualism in general epistemology.
(descriptive and conceptual purpose)
 - That is to say, to show that groups and other collective entities such as institutions are playing a role in the pursuit of knowledge.
 - That is to say, to emphasize the importance of social interactions in the study of one's beliefs.
- ▶ To suggest better ways (behaviors, social organization, . . .) to generate knowledge for an individual, a group or a institution.
(normative purpose)

Social Epistemology and Online Communities

Why Web epistemic communities are interesting for social epistemology?

- ▶ Each agent has very limited informations about others.
↪ (Detection of expertise could be therefore difficult.)
- ▶ We have the same data than the users (less implicit relationships between members of the community than with physical ones).
- ▶ We can study the effects of different kinds of social organizations and divisions of cognitive labor.
- ▶ Epistemology should be able to explain knowledge acquired from Wikipedia, StackExchange, etc., if it didn't give up the study of everyday epistemic activities.

It allows us to apply epistemology (Coady 2012).

Goals of this talk

- ▶ To analyze what methods are used to detect “expertise” on these websites.
- ▶ To wonder what kind of “expertise” we are facing in both cases.
- ▶ To ask which social epistemology could work as a philosophical framework to study these communities.

Outline

Opposition between Two Models for Web Communities

Laymen and experts

Conclusions for Social Epistemology

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Wikipedia

- ▶ The free online encyclopedia,
- ▶ an epistemic community,
- ▶ which works (that is to say: Wikipedia succeeded to be a (very) popular source of knowledge),
- ▶ which has **five pillars** (fundamental principles), **policies**, **guidelines** and an **arbitration committee** we can study,
- ▶ which is the place of **social epistemic practices** and **interactions** we can study.

Wikipistemology

There are attempts to use the framework of social epistemology to study Wikipedia. For example: [Don Fallis \(2008\)](#), “Toward an epistemology of Wikipedia”, in: *Journal of the American Society for Information Science and Technology* 59.10, pp. 1662–1674

The wisdom of the crowds

James Surowiecki (2004), *The wisdom of crowds: why the many are smarter than the few and how collective wisdom shapes business, economies, societies, and nations*, 1st ed, New York: Doubleday, 296 pp.

- ▶ Wikipedia is not an expert oriented community.
- ▶ Its main principle is to have many different authors, maybe without a comprehensive knowledge (amateurs);
- ▶ But considering the numbers of (possible) contributors, errors should be corrected more or less quickly regarding the popularity of the subject.
- ▶ One very knowledgeable author could be wrong or have a partial view of the subject. Many less knowledgeable authors correcting each other could obtain a better result.

⇒ Bottom-up and wide open.

“Wikipedia is both celebrated and reviled as embodying an egalitarian epistemological revolution.” (Sanger 2009)

Madness of crowds?

There are no distinction between contributors (“the free encyclopedia that anyone can edit”).

↔ No special place for experts.

Larry Sanger (co-founder of Wikipedia with Jimmy Wales) disagreed with this (Sanger 2009):

- ▶ “a main reason that Wikipedia’s articles are as good as they are is that they are edited by knowledgeable people to whom deference is paid, although voluntarily.”
- ▶ “Wikipedia’s commitment to anonymity further drives off good contributors”.
- ▶ “some decisionmaking role for experts is not just consistent with online knowledge communities being open and bottom-up, it is recommended as well.”

⇒ But there are only failed alternatives: Citizendium.org (Sanger), Veropedia, . . .

TeX.StackExchange

- ▶ A Q&A website, (not the same purpose than Wikipedia)
- ▶ dedicated to \LaTeX , a document preparation system popular among (scientist) academics.
- ▶ The website creates a reputation score generated by the community opinion about the answers and questions of the individual.
- ▶ This reputation allows users to have administrative privileges.
- ▶ Model
- ▶ Exemple of a question

Expertise

If we can talk about expertise in Wikipedia, it seems to be only expertise concerning interactions within the community and the respect guidelines and customs.

⇒ The two cases seem to be opposite ways of building an epistemic community : agents centered and group centered ones.

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The Novice/experts Example (Goldman 2007)

A framework to study the case of an edit dispute

Alvin I. Goldman (2001), “Experts: which ones should you trust?”,
in: *Philosophy and Phenomenological Research* 63.1, pp. 85–110

Problem

How can a layperson could make up his mind on a subject if his two (or more) expert advisers are in disagreement?

↪ We are precisely in this case when there is an edit dispute in Wikipedia.

- ▶ Avoid the *blind* reliance of the novice (Hardwig 1985).

Experts for Goldman

“Experts in a given domain (the E-domain) have more beliefs (or high degrees of belief) in true propositions and/or fewer beliefs in false propositions within that domain than most people do (or better: than the vast majority of people do)”. (Goldman 2001)

“a reputational expert is someone widely believed to be an expert (in the objective sense), whether or not he really is one.” (Goldman 2001)

“Expertise is not all a matter of possessing accurate information. It includes a capacity or disposition to deploy or exploit this fund of information to form beliefs in true answers to new questions that may be posed in the domain. This arises from some set of skills or techniques that constitute part of what it is to be an expert” (Goldman 2001)

Novice/experts' dilemma Solutions

The 3 classical solutions

1. The debate
2. Meta-experts
3. Popularity

Problems

1. Esoterism of the discussion, role of charisma, pedagogical skills, ...
2. Circularity
3. Why the majority would be more right? Tribes wars or intellectual conformism.

Experts' track-records

The best solution for Goldman (but compatible with the others).

- ▶ To look forward the previous decisions of the two experts in disagreement.
- ▶ Some of these decisions are probably now available for evaluation.
 - ↪ They were esoteric statements by the time but could be today exoteric statements.
 - ↪ It is very difficult to judge complex arguments; it is easier to recognize or deny their pertinence with some distance.
- ▶ Restricted to predictive statements,
- ▶ What about the not lucky but hard working and skilled expert?

Novice/experts Dilemma Solutions

the 4 solutions

1. The debate
2. Meta-experts
3. Popularity
4. *Experts' track-records*

Wikipedia

1. Talk tab
2. Arbitration committee
3. Ask the community (pool)
4. ?

Experts' track-records solution applied on Wikipedia

In the edit dispute case, there is another Wikipedia tool that can offer a solution: **the revision history tab**.

- ▶ The revision history tab allows someone to see all the contributions of a user.
 - ▶ It could be useful to detect expert's track-records.
 - ↪ Ex: in the case of a mathematical dispute between A and B , the revision history could show, for example, that (1.) A used to contribute on mathematical page, (2.) his contributions are accepted and (3.) B does not usually contribute on mathematical subject. Therefore, A will more likely be right than B .
 - ▶ But wikipedia users contribute often on various subjects. Therefore, detecting specific expertises is not the main point of the revision history.
 - ▶ This tool is more likely used to a more general purpose: to generate contributors reputations (trust or distrust).

Wikipedia: Common Knowledge created by Agents' Evaluation

- ▶ The rules and guidelines of Wikipedia recommend to focus on the content of the encyclopedia and leave behind authors.
- ▶ But in the case of an edit war there are (implicit) processes aimed to detect individual expertise.
- ▶ Of course, Expertise must be internally formed inside Wikipedia to be recognize.
- ▶ The two models of epistemic communities (Wikipedia and StackExchange) are not so different in fact.

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Reliabilist Social Epistemology

What philosophical framework do we need to study such communities as Wikipedia and StackExchange?







- ▶ Goldman social epistemology wants to study the truth-conduciveness of a belief-forming process.
- ▶ He used his previously developed (Goldman 1979) reliabilist position to base social epistemology.
- ▶ The idea of reliabilist epistemology is to avoid using normative concepts to define justification (a reductive account of justification).
- ▶ Epistemic processes are only relevant if they produce (cause for Goldman), at a high ratio, true propositions.
- ▶ It leaves aside epistemic properties such as trust, reputation which are normative notions.
- ▶ We miss important aspects of epistemic communities if we used only the reliabilist framework.

Agent centered Social Epistemology






Maybe a better framework for a social epistemology would be an agent centered one. It could allow to study agent competences, skills,

- ▶ Agent reliabilism or virtue Reliabilism (Greco, Sosa, ...),
- ▶ which could solve other issues concerning process reliabilism (value of knowledge, generality problem, ...).

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Thank you!

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