Social Knowledge and the Web

Reuben Binns

Epistemologists have traditionally been concerned with elucidating the conditions under which an agent knows some proposition, focusing on the state of a single individual, and her relation to the world. Whatever its merits, this approach to a theory of knowledge neglects the distinct phenomenon of social knowledge; knowledge that is held collectively by groups. However, we are fast approaching a world in which the sum of human knowledge is primarily stored on and accessed via the web, rather than existing in the minds of individuals. Our theory of knowledge must therefore be developed accordingly.

Proponents of the concept of 'social knowledge' claim that in certain cases, groups of people know something in a way that cannot be straightforwardly reduced to the knowledge of individual members. For instance, a research team may collectively know a scientific fact, even though its members do not each individually possess sufficient evidence to know the fact. More recently, Alexander Bird has proposed that social knowing is a functional analogue of individual knowing. In the same way that individual knowledge plays an action-guiding role for an individual, social knowledge is that which guides the action of groups or whole societies. And in the same way that individuals have certain cognitive faculties (e.g. sensory perception, reasoning), whose purpose is to generate knowledge for that individual, societies have institutions (e.g. scientific research programs) whose purpose is to generate social knowledge. According to Bird, social knowledge need not be contained in the mind of any person - it could be written down in a book or saved as a digital file – so long as it is a potential input to social action.

Knowledge on the web is, I propose, social knowledge held collectively by web users. The existence of the web reinforces the philosophical importance of social knowledge over individual knowledge, for the following reasons.

First, knowledge increasingly exists as social rather than individual knowledge. The more individuals retrieve knowledge from the web as and when they need it, the less important it is for anyone to accumulate individual knowledge. In addition, as the global population levels off, the amount of knowledge produced on a daily basis grows exponentially. We have long since passed the point at which all of human knowledge could be stored in the mind of one person (the last person to attempt this feat was the 18thC polymath Thomas Young). With the explosion of data now collected and stored in digital form, we may have also already passed the point at which all of human knowledge could be distributed across the individual minds of the global population of 7 billion. Instead, much of human knowledge will be stored not in the minds of individuals, as in the past, but online. As we increasingly offload our knowledge onto the web, individual knowledge will play a less central role in our lives, and should therefore take a less central role in critical reflection about knowledge generally.

Second, it is the world wide web, rather than the mere capacity for digital storage and networking, which makes the concept of social knowledge particularly salient. Recall that an item only counts as social knowledge if it has the potential to play a role in guiding social action. Merely digitally storing

some reliably-generated information is insufficient for it to count as social knowledge. Just as the knowledge contained in a dusty old book in a secluded corner of a private library is less likely to be a potential input to social action, so too is data locked away on an inaccessible hard drive, or even in the 'walled garden' of a social networking site. Neither could therefore be considered social knowledge, at least not en par with equivalent data published on the open world wide web. Such knowledge, which is accessible through a search engine, has much higher potential to be an input into social action; and therefore could be considered social knowledge. This point also helps conceptualise the damaging effects of the 'Balkanization' of the web, and benefits of openness, in terms of losses and gains in our level of social knowledge.

Finally, the promise of the Semantic Web would dissolve one dis-analogy which exists between individual and social knowledge. Consider the following the epistemic closure principle as applied to individual knowledge:

If Smith knows that P, and Smith knows that (P→Q), then Smith knows that Q

This principle seems problematic at the level of socially held knowledge. Assume that P and (P→Q) are social knowledge in the form of data on the web, but Q isn't. In such a case, does society know that Q? Perhaps not. A web search may not yield Q, even if it yields P and (P→Q). In which case, Q would not be an input to social action, and would not be social knowledge, even though both P and (P→Q) are social knowledge.

However, if the Semantic Web were to be fully realised, the epistemic closure principle might hold true for social knowledge on the web. This is because it would allow for the same kind of semantic entailments that occur in the mind of an individual knower. Rather than relying on the user to find both P and (P→Q) and make the entailment, the Semantic Web would enable the search engine to work out Q by itself. In this way, Q would become a potential input to social action, and thus qualify as social knowledge. The Semantic Web, by enabling such entailments, would therefore put social knowledge en par with individual knowledge.