

From: "philipp schmidt" <phi.schmidt@gmail.com>
Subject: **Abstract Submission - JPSchmidt - Wikipedia**
Date: May 1, 2008 7:39:54 AM SST
To: commons.research@gmail.com

I would like to submit the following abstract for consideration for the iSummit Commons Research workshops.

Best, P

Wikipedia - first results from the official survey and some thoughts on motivation, distribution, and quality

The United Nations University MERIT in partnership with the Wikimedia Foundation is conducting the official Wikipedia survey during May and June 2008 and we expect to present first results during the Wikimania conference 2008. Using results from this basic analysis, I will outline three areas of research - and map preliminary findings and results to the methodology I intend to use:

- (1) Motivation - why do people contribute?
- (2) Distribution - is this truly a global knowledge commons?
- (3) Quality - how does quality emerge in open systems?

I will not present final results, but preliminary findings and methodological approaches. The presentation will be useful both for those looking for a better understanding of the Wikipedia community, as well as those exploring theoretical models of analysis for open peer-production models.

Background

Commons-based peer production can be understood as an open innovation process. Whereas the traditional model of innovation positions the user as a client on the receiving end of a linear trajectory that runs from research lab to the market (Godin, 2006), recent literature has identified the user as an important and central source of innovation in at least some areas (von Hippel, 1988 and 2005). In one example von Hippel describes how the mountain bike was created by amateurs who were frustrated by the industry's failure to develop bicycles that were suitable for the mountain paths of California. These industry "outsiders" simply combined parts from existing bicycle models with stronger elements from motorcycles to create a new hybrid product. The mountain bike went on to become the most successful recent innovation in the bicycle industry and now accounts for the majority of bicycles sold by corporate manufacturers.

Enabled by computer networks, similar innovative users have begun forming open collaborative projects in knowledge-intensive sectors (Benkler, 2002). In some industries, such as software and academic publications and encyclopaedias, these collaborative projects of volunteers successfully compete with traditional firms.

In the open innovation model, the process of knowledge creation is public and transparent and there is an underlying principle of sharing knowledge rather than restricting access to it. Participants display a strong sense of community (Schroer & Hertel, 2007). The barriers to entry and participation are lower, because the means of production are readily available and affordable (Benkler, 2002).

(1) Motivation

My starting point is the literature on private provision of public goods (von Hippel and von Krogh 2003), and in particular the work on open source software development (for example Lerner and Tirole 2005, Weber 2004), which in turn heavily leans on labour and industrial organization literature (going back to Coase 1937). Most studies use surveys to determine individuals' motivations to invest time and effort and have found (sometimes conflicting) empirical evidence for a wide range of possible motivations. These include: the ability to build the software that one needs (Raymond 1999, Lakhani and von Hippel 2003); signalling benefits (Lerner and Tirole 2002); higher wages (Hann, et. al. 2004 in the only study not based on survey results); the wish to learn and share knowledge (Gosh 2002); the enjoyment that creating software provides; the learning that happens during the process of participation, and the learning that stems from feedback by other users and developers (Lakhani and von Hippel 2003).² It is important to note that many of these private benefits are associated with the process of production rather than its output and seem to be stronger in the case of public goods. This relevance of process (together with positive network externalities of an increased user base) also limits the negative effects of free-riding, since free-riders can only appropriate the reduced benefits directly related to the final output. While there is disagreement as to which motivations are more important than others, we note that individuals receive considerable private benefits from producing public goods, that these benefits are associated to a large degree with the process of production rather than only with the output itself, and that free-riding does not pose a significant dis-incentive to individual contributors in open source software communities.

(2) Distribution

We know little about the distribution by country of commons-based peer production contributions. Clearly participants from the developed countries make up the bulk of contributions, but how does this change if one controls for population size, development index, bandwidth, or per capita income? I will show a rough analysis of the survey results.

(3) Quality

There is a concern that "quality" will suffer if innovation processes are open and anyone (meaning, those without qualifications and expertise) can participate. However, there are reasons why the opposite might be the case, and open processes will produce equal or higher quality than closed ones, including:
User-innovators are best able to identify and address their own needs and have strong incentives to innovate (von Hippel, 1998 and 2005).
Collaborators form communities of practice, which offer effective learning and innovation opportunities (Lave & Wenger, 1991).
Reduced barriers to participation, enable a more diverse population of contributors/ innovators; and diversity in opinions and backgrounds can improve a group's ability to identify solutions to problems (Page, 2007)
Critical evaluation (Popper, 1973) in an open forum serves as the key mechanism that guides community-based knowledge creation. As a result an ongoing process of review and iterative improvement is a fundamental component of the development model (Lee and Cole, 2003).

United by a common practice of sharing, open innovation communities often display high levels of social capital, which in turn positively influence knowledge production (Nahapiet and Ghoshal, 1998).

There is at least one empirical study on the quality of content production in open models vs. closed models. In 2006, Nature found that the accuracy of articles in Wikipedia, a vast online encyclopaedia that anyone can edit, is on par with the eminent Encyclopaedia Britannica (Nature, 2006).

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Philipp Schmidt
University of the Western Cape, South Africa
United Nations University MERIT
E: phi.schmidt@gmail.