

Mediated Interaction in Distributed Collectives and Local Communities

Les Gasser

Graduate School of Library and Information Science
University of Illinois at Urbana-Champaign

Hamid Ekbia

Department of Computer Science and Mathematics
University of Redlands

2nd International Conference on Communities and Technologies
13-16 June 2005 Milano, Italy

In terms of human interactions, social organization, technical infrastructures, and the voluntary character of participation, Free/Open Source Software (F/OSS) projects resemble many Community Informatics (CI) efforts. Along with similarities, important differences exist between F/OSS and other kinds of CI settings. F/OSS development projects may involve thousands of participants (programmers, users, etc.), dispersed in time, space, social status, culture, and skill, interacting via information and computing technologies (ICTs). These features bring F/OSS projects into the realm of *Distributed Collective Practices* (DCP), broadly understood as the mediated collaboration of large numbers of people, in significant social complexity, across long spans of time and space [Gasser & Ripoché 2003]. These features also mean that discourse necessarily becomes a key constitutive component of F/OSS projects. Many Community Informatics programs, in contrast, are smaller and more "geographically grounded:" the nature of community is significantly defined by shared interests in a localized geographical and geo-political space.

In this paper, we examine some implications of the difference in size, scale, mode of communication, and geo-centeredness for the way projects operate in these two realms. In particular, we take a close look at the discursive practices involved in F/OSS projects. For this purpose, we present results obtained from a longitudinal study of Bugzilla -- the participatory bug-tracking repository for the open-source web browser suite Mozilla. Bugzilla is a task-oriented knowledge management tool designed to support a flexible, open, reactive process of collective, online, real-time sensemaking (in contrast to managing episodic, historical knowledge for re-use [Gasser and Penne, 2002]). Our results demonstrate that effective practices in the Bugzilla community align many different social orders through different discursive constructions. This finding is in line with Gee's [1999] theory that any specific discourse involves six ongoing "building" tasks that consensually define the resources employed by (and resulting from) of the discourse; these include material, semiotic, activity, connection, socio-cultural, and political components. Through our study, we have discerned these components in specific debates about F/OSS code, behaviors, causal relations, and evaluative metrics ("virtues"). We

use Gee's framework to explain how these components constitute the processes of sense-making in F/OSS. Given the technical and task-oriented character of Bugzilla, these findings might suggest deeper similarities between F/OSS and community informatics projects and, more generally, between DCP's and local communities in terms of how they organize and mobilize resources, how they accomplish their goals, and how they utilize information and communication technologies for these purposes. We also address some of these questions.

References

Les Gasser and Bryan Penne, "Transformations of Sense-making in Networked Organizations," Paper prepared for the *First International Conference on the Economic and Social Implications of Information Technology*, Washington, D.C., January 27-28th, 2003. Memo UIUC-2003-05-LG+BP

Les Gasser and Gabriel Ripoche, "Distributed Collective Practices and F/OSS Problem Management: Perspective and Methods." *2003 Conference on Cooperation, Innovation & Technologie (CITE'03)*, Universite de Technologie de Troyes, France, December 2003.

James Paul Gee. *An Introduction to Discourse Analysis: Theory and Method*. Routledge, 1999.