

# Chapter 53

## Collaborative Information Behavior in Completely Online Groups

**Sean Goggins**

*Drexel University, USA*

**Sanda Erdelez**

*University of Missouri, USA*

### ABSTRACT

*This chapter situates collaborative information behavior in completely online groups as a phenomenon distinct from prior work understanding collaborative information behavior in face-to-face groups, free and open source software groups and Wikipedia groups. The unexpected diversity of information resources utilized by completely online group members is analyzed through Sonnenwald's Information Horizons theory. Information practices of completely online group members are described, and the key themes of groups as information resources, the influence of tool change on collaborative information behavior online, and the focusing potential of collaborative information tools for completely online group work are explicated. Future research directions that explore the potential of COGs for distributed innovation; new types of collaborative information behavior and breaking down the digital divide are reviewed.*

### INTRODUCTION

Information and communication technologies designed for computer supported collaborative learning (CSCL) have enabled new collaboration phenomena, including groups who come together online without ever meeting face-to-face. In

these settings, people from diverse backgrounds come together for eight to sixteen weeks to perform group activities using only online course management systems like Blackboard, Sakai or Moodle. Research to understand the collaborative information behavior of Completely Online Groups (COGs) is sometimes conflated with studies of free and open source software (FOSS) and Wikipedia groups. Like these other types of

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technology-centered groups, COGs exchange information and maintain awareness primarily through shared artifacts and asynchronous communication. However, COGs differ from these types of groups in three significant ways. First, their members have a common organizational affiliation, similar to work groups or student groups in face-to-face settings. Second, also like members of face-to-face groups, COG members are often assigned to their groups by an organizational leader or instructor. Finally, like many but not all FOSS and Wikipedia groups, COG members do not meet face-to-face.

Collaborative information behavior in COGs is challenging because members share some information resources in common, such as those contained within the collaborative tools they use, but also rely on information resources unique to each individual's physical location and internet use habits. Sonnenwald (1999) first identified these different arrays of available information resources as Information Horizons, suggesting that information resources are used to a greater and lesser extent depending how near on ones horizon they are. How the Information Horizons of COG members influence collaborative information behavior within these groups is illustrative of phenomena emerging from the use of technology to establish and maintain online groups. Collaboration around information in COGs is influenced by the specific information in the group's field of view, and member information horizons similarly influence the group's collaborative information practices.

This chapter looks at the special case of collaborative information behavior among completely online groups from three perspectives. First, COGs are distinguished from other types of groups whose information behavior is examined in the literature. Second, Information Horizons theory is presented as a framework for examining the collaborative information behavior of COGs. Third, four collaborative information behavior themes, identified in one study of COGs, are used

to frame our current understanding of COG information behavior, and the next steps in explicating collaborative information behavior in COGs. We explore collaborative information behavior using Sonnenwald's (2000) critical incident interview technique. Our methods included in depth interviews with three informants, whom we asked to describe incidents of information retrieval and the resources they understood to be available to them during those incidents. Subsequently we conducted a qualitative survey based on the findings from the interviews with 21 informants.

## **BACKGROUND**

Patterns of collaborative information behavior emerge as COGs perform tasks, maintain social relations and coordinate member responsibilities. Similar technology-mediated collaborative information behavior has been explored through the free and open source software (FOSS) movement, Wikipedia and through ethnographically informed work studies of technology use in mixed mode (face-to-face and technology-mediated) groups.

The case of work groups composed of strangers that are brought together exclusively through technology to collaborate on a set of activities without ever meeting face-to-face is not addressed in this prior work, though the practices associated with building and maintaining community in face-to-face settings has been widely studied and theorized about. Wenger (1998) described communities of practice (COPS) who work together on information intensive problems in face-to-face settings and, through a process of negotiation, develop reified practices supporting the consistent performance of work. Discussing partially online groups, Gloor (2006) noted that the perfect example of a collaborative innovation network (COIN) is one comprised of people who know each other from some prior face-to-face work setting, and subsequently adapt technology to support collaboration over distance. Completely online

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