

Exploring the social realities of online communities through the lens of a Human Information Behavior framework

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Online communities are of interest to researchers of multiple disciplines for reasons including issues of access, cultural diversity, community/social capital, social interactions enabled, and supporting ease of use (Preece, 2001). As new technologies provide innovative uses and points of access, and as they are used by a wider number of users, online communities provide a rich basis for discovering new dynamics of structure, use, design, and their interaction an impact on social practices. These new technologies and social uses create new contexts that do not always fit well with existing theoretical and analytical frameworks. One challenge of social informatics is to adapt or fit existing theory to emerging social practices layered over new technology, so as to support the cumulative and cooperative nature of interdisciplinary research. We take this stance to consider how the application of one Human Information Behavior (HIB) model to the socio-technical phenomena of online communities may uncover issues of theoretical fit. In particular the body of literature of online communities has not usually been examined effectively from the lens of HIB, thus considering prior online community studies from the HIB perspective may identify key research issues for both HIB theory and for social informatics.

Here, the term ‘online community’ broadly refers to relationships and by-products of relationships held by a collection of people who use computer systems as a substantial medium to interact on shared interests, concerns, or complimentary needs. We specifically include interaction between members that happens face-to-face. This perspective blurs the traditional distinction between online and offline activity – recognizing that “community” from any single participants’ view could encompass a rich interrelation of distinct domains. Furthermore we take ‘online community’ to encompass ‘virtual communities,’ ‘networked communities’ and ‘community networks’¹.

Sonnenwald’s evolving framework for human information behavior (1999) was systematically applied to a set of online community literature to examine whether the framework’s propositions are supported or not, so as to uncover open problems for socio-technical studies of online communities and human information behavior—what aspects

¹ Community networks are geographical communities “linked” or supported by ‘networked’ computer systems for local community information provision and exchange, communication, and other local needs.

that are relevant to understanding the reciprocal relationships between technologically-mediated systems, communities and information resources should social informatics be examining, but hasn't?

Sonnenwald's evolving framework for HIB suggests that individuals' information behavior takes place by interacting with (acting upon and being affected by) an *information horizon* within a particular situation and context. An *information horizon* is the repertoire of possible information resources within specific situations and contexts, such as different media (books, magazines, broadcast media), search and retrieval systems, the library system, and very importantly, people we know or are connected to through our social networks.

The framework suggests that "when an individual has decided to seek information, there is an information horizon in which they can seek information". However, prior work suggests that for an individual in a particular situation, there may not necessarily exist an 'information horizon' as conceptualized by the theory. Rather, the one information resource used by an individual may be pre-determined or interlocked with that individual's situation before the individual decides to seek information, or even before the recognition of an information need. That is, for a given context there may exist an incomplete or constrained information horizon. Thus, the rationalized flow of information needs-seeking-selection-use does not hold. Furthermore, evidence suggests that 'accessibility', and therefore information horizons, ought to be interpreted not only in terms of "formal access" (i.e., resource availability or terminal availability and connectivity) and "effective access" (or the factor outside 'formal access' which may determine use, such as affordability, appropriate skill sets, and critical mass in the case of networked technologies) (DiMaggio, 2001). Accessibility ought to also be interpreted in terms of *normative access*—coined and defined here as the socially and individually shaped norms that approve or disprove one's use of the resource.

However, the power of 'information horizons' is in its conceptualization as "densely-populated solution spaces"; in essence, how to effectively visualize solution spaces for integrated access. The "densely-populated solution spaces" that Sonnenwald describes consists of two aspects. The first aspect pertains to *knowledge* of the solution spaces: "[b]ecause information horizons consist of a variety of information resources... many of which have some knowledge of each other, perhaps, information horizons may be conceptualized as densely populated space" (p. 187). The second aspect concerns the *utility* of a densely-populated solution space. That is, information horizons as densely-populated solutions spaces expand the conceptualization of information retrieval and searching from a linear path (of finding the best solution) to "how to make possible solutions visible – to an individual(s) and to other information resources" in an integrated fashion (p. 187). Thus, the utility aspect of densely-populated solution spaces involves computerized systems.

Sonnenwald's proposition of densely-populated solution spaces is one about the *potential* of information horizons. Therefore, it presents the challenge of moving an individual beyond normative access. In this way, the proposition begs us to re-assess where the 'boundaries' of social groups are—in this case, the boundaries of online communities.

Are resources not online used by members of an online community (for purposes related to the online community) part of the online community? This question is relevant because by placing boundaries based on the virtual space (what one can see and access when logged on) online community studies may be missing aspects which help sustain the community.

In addition to treat the *potentiality* of information horizons' densely-populated solution spaces fairly, information horizons must be interpreted in terms of the reachable horizons beyond an individual's predetermined choices; in terms of understanding how an individual's limited use of information resources can be expanded (Sonnenwald, p. 187), and how possible solutions can be made both visible and *accessible* beyond the terms normative sense.

These are relevant challenges not just for online communities, but other social group contexts and the effective channeling of resources within and across social groups.

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