

Redesign as an Act of Violence: Disrupted Interaction Patterns and the Fragmenting of a Social Q&A Community

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ABSTRACT

The worst-case scenario for the redesign of an established online community is a subsequent mass migration of its core members to other sites. Using data from transaction logs, content analysis and participant observation, this paper presents a descriptive analysis of the fragmentation of a social question answering (Q&A) community in the immediate aftermath of a fundamental redesign, where site-based communication mechanisms no longer functioned. The ways in which the community and its diaspora reacted, reconnected and resettled on other sites provides empirical data to support recent research on the life cycle of online communities. The results suggest that many of the same processes that help social Q&A sites generate content and motivate participation can work to dismantle an established community if communications between members are even temporarily disrupted. Modeling a redesign as an attack on a community can help future designers anticipate alternative paths of communication and information flows.

Author Keywords

Social Q&A, question answering, online communities.

ACM Classification Keywords

H5.3. Group and Organization Interfaces: Web-based interaction.

General Terms

Design, Human Factors

INTRODUCTION

Imagine waking up to find that all the roads and buildings in your town have been moved, your vehicle is missing and your phone is inoperable. How users reacted to a similar situation, in the aftermath of a redesign of an established online community, is the focus of this paper. While most previous work has focused on questions of how to generate and maintain online participation, this case study analyzes empirical data surrounding the breakdown of an established social Q&A community.

In social Q&A communities [38], people ask, answer and evaluate one another's content. The most popular social Q&A site is Yahoo! Answers [1, 48], though many competing sites exist [21]. While the details of each system vary, common to all are network effects: the more people participate, the larger the corpus of searchable information, and the better the content vetting system is assumed to work. However, to create a successful social Q&A community, individuals must not only generate content, but be able to interact around it.

Many users find the intrinsic motivation of discovery and interaction in social Q&A sites to be sufficient, but different communities attempt to maximize continued participation by providing user feedback in a variety of ways: individually, by ratings, comments or messages from other users; at the system level, with rewards for reaching certain levels or point totals; or at the social level, by accumulating friends, fans or followers. Feedback is operationalized differently from site to site, but each expresses a measure of an individual's reputation and influence within the community. Formalized trust measures are one way to distinguish online communities from other groups who interact online, who have no virtual identity to maintain, and no shared community to preserve.

The ways in which members of online communities amass and spend their social capital are as diverse as the members themselves, but all share an investment of time and effort in the community. Some high-ranking members feel a sense of ownership and responsibility for the community, and volunteer their time and advice to new users and site administrators alike, in order to preserve and perpetuate it. Other longtime members object to many of the rules and limitations of the site, and actively rebel. These rogue users [16] are among the highest participators in a community, but tend to criticize it, instigate and perpetuate conflict, and attempt to recruit others to their viewpoint. Between these two extremes of the continuum of longtime community members are participants who seek only a worthwhile Web experience. In either case, the social capital accumulated by these individuals is generally valueless outside the site in which it was established. Understanding how and why people would choose to abandon a community into which they have invested so much time and effort is the main motivation of this study.

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Research questions

A December 2009 redesign of the Answerbag [2] social Q&A community resulted in a sharp decline in the average experience level of the most active members (Figure 1). New users start at level one, and level up as their contributions are uprated by others. Active users can reach level 20 in roughly two months, but successive levels get increasingly difficult to reach. Level 40 requires an average of one year on the site, and even the most dedicated users rarely surpass level 80.

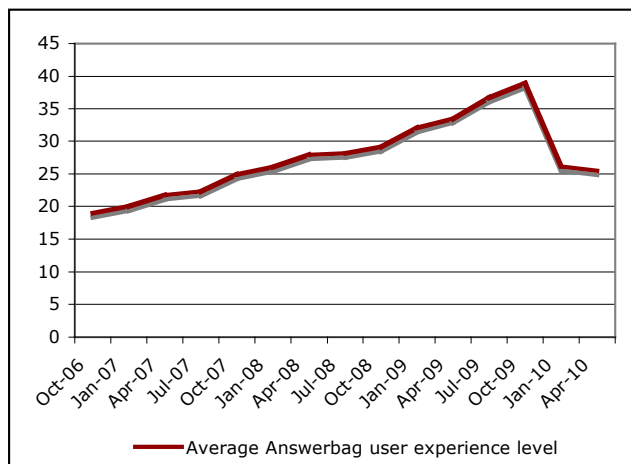


Figure 1: Average experience level of the 2000 most active Answerbag members, October 2006-April 2010.

The two research questions addressed in this study are:

- RQ1: Why did active, established users abandon this community after the redesign?
- RQ2: How did users communicate, migrate and regroup elsewhere?

BACKGROUND

Online community implies a stronger bond than a group of individuals who come together online for the purpose of a project, game or pastime. Online communities have a shared domain of interest, and develop rules and standards of behavior that may be quite independent of what the designers originally envisioned. According to critical mass theory [30], a threshold of participant volume and frequency of interaction must be met and maintained for the community to survive. Similarly, social information processing theory predicts that bonding in online communities requires an investment of time and the exchange of a significant number of messages [44]. Group heterogeneity has also been identified as a key success factor [35].

While several user revolts have been documented in blogs and popular media, for example in the aftermath of the August 2010 redesign of Digg [20], there have been few studies focusing on why people leave online communities. One exception is Iriberry and Leroy [22], who propose a life cycle model of online community success reproduced in

Figure 2. Community is formed when users take ownership of the content and find the site usable and reliable. Growth occurs through content refinement, trustworthy interaction and recruiting new users, all of which can create a virtuous circle of continued maturation. If these conditions are not maintained, the online community can detour into fragmentation and death.

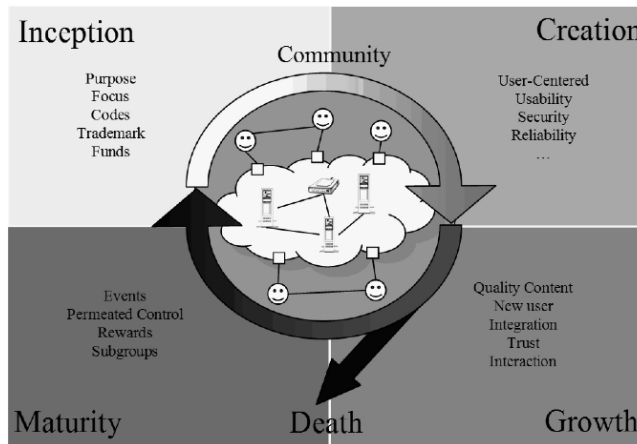


Figure 2. The life cycle of online communities, from Iriberry and Leroy [22].

Brandtzæg and Heim [5] surveyed 500 individuals who had become less active or terminated membership in online communities, and found that the most common reason for departure was the absence of friends or other interesting people in the community. Other commonly reported reasons included low quality content, poor usability, and online harassment or bullying. Less common reasons included dissatisfaction with moderators, and a sense that the community had become overcommercialized. Each of these categories reflects the elements noted by Iriberry and Leroy, and both coding schemes and the sample size served as input for this study.

Trust is central to online communities and HCI; the focus of the trust can be the system, the content within the system or other users of the system. People tend to use systems in ways designers never intended [18, 33], and a current thread of trust research in HCI involves the ways in which users intentionally game reputation systems, in order to mimic trusted others or to otherwise subvert their intent [11, 36]. In the present study, one of the primary motivations of the site administrators for the redesign was to strengthen trust in the reputation system.

Socialization, engagement and commitment

In social Q&A sites, users come for the content, but stay for the community. Studying the social nature of Q&A sites is necessary to understand processes of social information production [26, 37], and the motivation for participation and departure. Tactics for socializing newcomers to yield continued participation include welcome messages, invitations, task requests, positive feedback, constructive criticism, personal comments and conversations [21].

Some studies have found that personalized forms of communication tend to produce longer-term participation than standardized messages [9], though other researchers have found that newcomers are more likely to continue posting in online communities if they receive any response to their initial post, regardless of its quality [7, 25].

When a community offers social tools to allow friending or following the contributions of selected others, social learning theories can come into play. Burke, Marlow and Lento [6] found that newcomers who see friends contribute are more inclined to contribute themselves. Receiving feedback and having a wide audience were also found to be predictors of increased participation. Smith [40] studied social accounting metrics on Usenet and found that a mutual awareness of participants' contributions and relationships is critical to a cooperative outcome. Fiore et al. [14] also found that revealing author histories correlates with trust, and an increased likelihood of reading more content posted by those contributors.

Like many social recommendation sites, social Q&A sites can be modeled as a game, where the goal is to maximize one's social capital and influence within the community, and minimize unwanted interactions. Whether choosing friends on a social Q&A site, or a guild in World of Warcraft [46], rational actors align themselves with individuals who can help reduce transaction costs—or conversely, they work to position themselves as those well-connected individuals [19]. User profile pages or histories have been conceptualized as signaling identity [12] and expectation [27], and serve as vehicles for personal expression as well.

A critical point in the evolution of an online group is when its members become aware of themselves as a community [17]. Cheshire and Antin [8] conceptualize information pools as those created through individual contributions of digital information goods, and Olsson [31] argues that collective content, defined as that created and collected by an online community, both motivates interaction and serves as tangible artifacts of the community. Any collective content containing common memories and documenting the experiences of the group itself was seen as highly valued in all the communities Olsson studied, and these artifacts served as “glue” for nurturing the social cohesion in the community.

Rogue users [16] create, contribute to, and cite these public documents to voice and ground their claims about perceived biases or injustices in the community, and to rally others to their cause. Experienced members of online communities, rogue or not, tend to express their sense of ownership by exhibiting territorial and exclusionary behaviors, including downrating, negative feedback and frequent participation to signal their commitment [42], suggesting that document-centric actions, rogue behaviors and participation frequency are important factors to include in this study.

People participate most fully in online communities when they cannot find the same resources, experiences or interactions in their offline lives [43]. A scarcity of options can be a factor driving continued participation, and can create emotional attachment [10]. The most intense emotional episodes occur in interdependent *n*-way interactions, not independent experiences [24]. Ethnographic studies of online communities provide a unique view of the emotional commitment and engagement of their participants. Maloney-Krichmar and Preece [28] studied the Kneebord, a health-related online community, for over two years, and found that “the most important concern for the community is having a reliable means of communication” (p. 210). Even through a bulletin-board type interface not designed to support social interaction, users adapted to the system's limitations, formed their own roles and subgroups, and developed strong relationships and community norms.

Expressions of concern and empathy have been widely studied in online communities [34, 45, 47, 49]. It is common for individuals to express public concern for people who have been absent from the community for a time, and many post contact information or announce planned absences to ease and reflect the community's concern. An important subcomponent of online empathy studied by Pfeil and Zaphiris [32] was togetherness, an explicit expression that the people of the community stick together, help each other and are there for one another, even across different online communities, and in real life [29].

Behavior and communication in emergencies

How information flows in emergencies, disasters and other extreme situations is of interest both socially and technologically. In a disaster situation, breakdowns in the normal communications infrastructure have led to innovative uses of ICTs and whatever alternative channels are available [39], to locate community members, convey information and coordinate efforts to assess the situation. Even, or perhaps especially, in times of crisis, groups and individuals exhibit complex patterns of interactions, and will often share or withhold information to serve their own ends [41]. This paper can be viewed as a case study of an existing community suddenly presented with a new interface, and no direct way to communicate.

SETTING

The Answerbag social Q&A community was established in April 2003. Users ask and answer questions, comment on answers in threaded discussions, and rate contributions of others, awarding points that accrue to the poster's overall experience level. Answers are listed in descending order of rating points, providing a collaborative filtering mechanism. Content was initially restricted to fact-based questions, but as interest in the site grew, users rebelled against this restriction and submitted social and opinion-based content faster than moderators could remove it. When the administrators relented, allowing conversational content

and introducing social tools such as friending and selective notifications, Answerbag's traffic increased substantially, and today the site receives in excess of 12 million unique visitors per month. Approximately 1.5 million user accounts have been registered in the site's lifetime, and currently about 700-1800 registered users login each day.

Redesign rationale

Answerbag administrators embarked on the redesign both to add functions long requested by users, and to update the site's look and feel, unchanged since 2006 (Figure 3). For example, the absence of private messaging on the site had forced people to use the comment and real-time notification functions to communicate. By default, accepting a friend request created automatic notifications of all new content posted by that person. When users posted on any thread, all their friends would be notified in real time, or at their next login, creating natural hubs of social interaction around particular Q&A. Comment threads sometimes became meeting places for free-form conversations, often diverging from their original topic, engaging dozens of members. Some were archived by the participants via links on their profile pages. With all content public, other users would happen upon these threads, join the conversation and often be invited into the existing friend network as a result.

Fairness in reward distribution is a long-recognized design totem [23], and administrators recognized that the growth of the site had made the existing reputation system biased in favor of experienced members with extensive friend networks. It rewarded the accumulation of rating points by increasing one's power to uprate or downrate content, via the + and - buttons at the right of each post in Figure 3. New users could give or take away one rating point, while users at the highest levels could bestow or remove up to six points. Longtime users tend to have networks of similarly high-ranking friends who receive selective notifications of all their submissions, creating a significant rating advantage over content submitted by newcomers.

The ability to downrate content was the source of a great deal of conflict on the site, and extended the advantage of experienced users, who could not only raise favored Q&A by six points, but reduce unfavored ones by the same amount. Clubs and subgroups formed, each promoting its own view of appropriate and inappropriate content and modes of interaction, and these groups often co-opted the notification function to critique and downrate one another in coordinated attacks [17].

The existing home page emphasized user contributions, and was updated in a live flow to accurately reflect the pace of site activity. However, spammers learned to create fake accounts and flood the live feeds on the main page before they could be removed by moderators; thwarting these spammers also motivated the redesign.

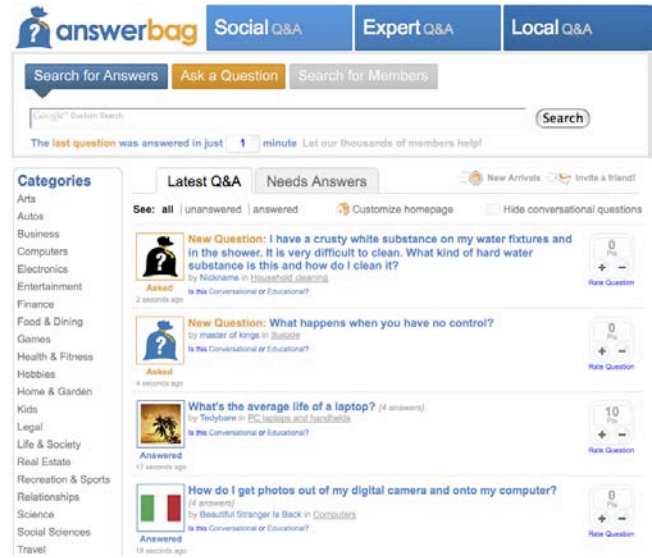


Figure 3: Answerbag home page, November 2006-December 2009.

On December 10, 2009, the redesigned site was launched (Figure 4). While the core functionality of asking and answering questions remained intact, the new private messaging function did not work, but the familiar workaround of communicating via comments and notifications was broken as well. Comments posted unreliably, and notifications were no longer delivered. In some cases, existing comment threads disappeared, many of which were high-traffic pages containing collective common memories [31] and interactions. The redesign replaced the live, unmoderated Q&A feed with static, editor-selected content on the home page, which yielded the impression that the site had far less activity than before.



Figure 4: Answerbag home page, December 2009-present.

METHOD

Answerbag data has been gathered from November 2004 to present as a participant observation, and administrator access to all site data is available. The time period of this

study begins in September 2009, three months prior to the launch of the redesigned site, through September 2010. The Answerbag database backend was initially queried to discover the 500 most active registered users in the three months immediately prior to the redesign. Activity was operationalized as any addition to or alteration of site content, including posting or editing questions, answers and comments, rating content, editing personal profile pages, editing one's username or submitting feedback. Many users contribute in bursts, then may not login for days or weeks, so activity was measured in terms of the average number of actions per day over the three-month period. Since limiting the results to exactly 500 users would have excluded some equally active users arbitrarily, the initial set was expanded to include 544 users. Registered accounts were then removed from the sample if they had not been on the site for at least three months, or had been generated by spammers or bots. This resulted in a final set of the 519 most active users, out of over 49,000 who logged in at least once during the three months prior to the redesign.

For the purposes of this study, rogue users were operationalized as those active users who had violated the rules of the site more than once. Characteristics of rogue users include creating and perpetuating conflict on the site, posting content flagged as inappropriate by the community, or having their accounts suspended for more serious violations of site policies. Other indicators of rogue behaviors include repeated complaints to moderators and administrators about site policies and other users, and the number of complaints submitted by other users about their actions. This yielded a subset of 41 active rogue users within the 519 most active users overall.

The first phase of data analysis addressed RQ1: Why did established users abandon this community after the redesign? The contributions of active users in the aftermath of the redesign were coded along the following dimensions, adapted from Brandtzæg and Heim [5] and Iriberry and Leroy [22]:

- *Seek absent friends.* Seeking or lamenting the absence of community members.
 - *Provide contact information.* Posting the email address, Web site or other contact information for missing members, or inviting people to contact the poster directly for this information.
 - *Low quality content.* Questions, answers and comments are not as engaging and useful as they had been before the redesign.
 - *Poor usability/functionality.* New or existing site design, functions or navigation did not work as they should.
 - *Harassment/bullying.* Conflict with other users, including personal attacks, stalking, and creating multiple accounts to mimic or attack a particular user.
- *Overcommercialization.* Too many ads, links with other sites or other perceived invasions of the community for the imagined purpose of increasing traffic and ad revenue.
 - *Dissatisfaction with moderation.* Content is removed, changed or preserved on the site in ways the poster feels are incorrect or unfair.
 - *Support for changes.* Statements of general approval with the redesigned site, sometimes including suggestions about how to improve further.

While users on any site may post content that does not necessarily reflect their true opinion, all statements were coded as posted. Since the study used confidential backend site data, it was not possible to involve additional coders, and no inter-rater reliability analysis was conducted.

The second phase of analysis addressed RQ2: How did users communicate, migrate and regroup elsewhere? This phase focused on identifying evidence of community fragmentation, which may have been coded under any of the categories in the first phase of analysis. This included expressions or threats to depart the site, directional questions about how to contact other users, and indications of alternative sites and communication channels. In the latter case, links to new sites were followed, and the number and contributions of former Answerbag users were counted and content analyzed. In comparison to the data collected from Answerbag, data from other sites is limited to that which is publicly viewable, and the identity of posters cannot be confirmed with the same level of confidence. However, a large number of users studied chose to post their Answerbag username and avatar image on other sites, in order to be recognized by friends in the new environments.

RESULTS AND DISCUSSION

The results suggest that the key factors in the decision to leave the site were the inability to communicate with friends, conflict with other users related to supporting or opposing the redesign, lack of access to collective content, and poor usability during the transition between the old and new sites. Just as they had prior to the redesign, users worked around the limitations of the site to create hubs of contact information and direct friends to other sites. Rogue users were four times more likely than non-rogues to be the source of contact information for other users, and across all coding categories, rogue users' average number of actions during the post-redesign crisis outnumbered those of other active users by nearly a factor of ten.

Of 4,149 actions taken by 478 active (non-rogue) and 41 rogue users, 1,977 (47.7%) could be coded into categories related to the redesign of the site (Table 1). As a rough comparison, prior to the redesign, less than two percent of Answerbag content was focused on Q&A related to the site or its users. A total of 125 actions were coded in multiple categories.

Category	active users <i>n</i> =478	rogue users <i>n</i> =41
Seek absent friends	375 (32.2%)	187 (19.9%)
Provide contact information	40 (3.4%)	133 (14.2%)
Low quality content	112 (9.6%)	73 (7.8%)
Poor usability/functionality	142 (12.2%)	201 (21.4%)
Harassment/bullying	168 (14.4%)	137 (14.6%)
Overcommercialization	143 (12.3%)	78 (8.3%)
Dissatisfaction with moderation	75 (6.4%)	119 (12.7%)
Support for changes	108 (9.3%)	12 (1.3%)
Total actions coded	1163	939
Average actions per user	2.3	21.8

Table 1: Actions by active users and rogue users immediately after the redesign.

Seek absent friends

The results confirm prior research that a primary reason people depart online communities is the inability to interact with friends. For both active and rogue users, seeking and sharing information about how to contact people they knew on the site was the most common form of action. Figure 5 illustrates an example of an action coded in this category.

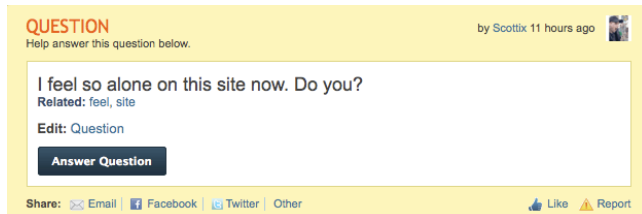


Figure 5: An example of a post-redesign Answerbag question coded for *Seek absent friends*.

Provide contact information

While both active and rogue users were especially concerned with finding absent friends in the wake of the redesign, rogue users were roughly four times more likely to serve as hubs for the exchange of contact information. This difference can be partially explained by how rogue users were operationalized; those who have had their accounts suspended at some point had already experienced the “emergency” situation where they could not contact friends within the site, and some had already gathered alternate contact information during their stay in Answerbag’s penalty box. Also, rogue users tended to copy and paste the same contact information repetitively, in many Q&A threads. Multiple posting is against Answerbag policy, but not surprisingly, rogue users were not dissuaded.

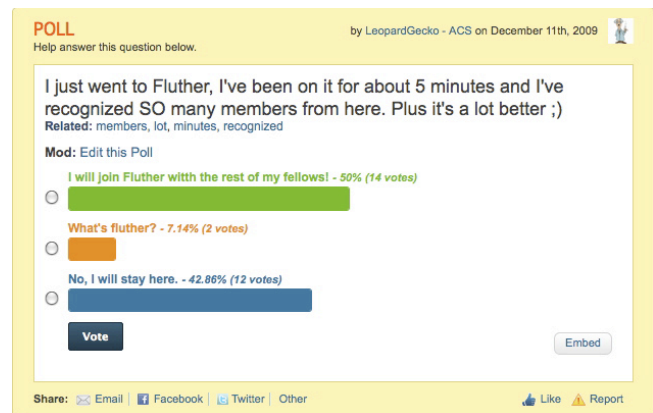


Figure 6: A post-redesign Answerbag poll coded for *Provide contact information*.

Low quality content

The most common expressions coded into the low quality content category were those expressing outrage at missing high-traffic answers and comment threads, the collective content that bound the community together. Many served as de facto public communication spaces for anything from mutual support to outright silliness. Some actions coded in this category reflected the lack of apparent site traffic, lack of interaction with other known users, and the feeling that the interface did not encourage the creation of worthwhile content to the extent the old site did.

Poor usability/functionality

While many active users focused on broken features, rogue users were almost twice as likely to point out inadequacies in the usability of the site. Actions coded in this category included constructive criticism, informational questions (Figure 7) and accusations of incompetence. Some rogue users, who did not meet the criteria for an active user as operationalized in this study, returned to Answerbag during this period to, in essence, publicly dance on the site’s grave. Some users included a statement with their complaints about the superiority of other sites, though these were not cross-coded in *Provide contact information* unless they specifically mentioned the presence of other members.



Figure 7: A post-redesign Answerbag question coded for *Poor usability/functionality*.

Harassment/bullying

One serious consequence of the Answerbag redesign was the schism that developed within the community, between those who found the changes and lack of communication disconcerting but recoverable, and those who felt betrayed

by the site designers and administrators who in their view did violence to the community by releasing the new site in its current state. Emotions ran high on all sides. Some who posted their intentions to leave the site and attempted to organize protests and boycotts were accused of being self-indulgent and overdramatic, while some who chose to stay were accused of being “lapdogs,” “shills” and “sheep.” Many individuals had a history of conflict with one another, and members on all sides both posted and were the target of content coded as *Harassment/bullying*.

Overcommercialization

“Why would they do this?” was a common sentiment expressed by active users in response to the redesign, and a number of community members theorized that improved usability, fairness and functionality had been secondary to increasing advertising income. Active users tended to ascribe the changes to financial motives at a higher rate (12.3%) than rogue users (8.3%).

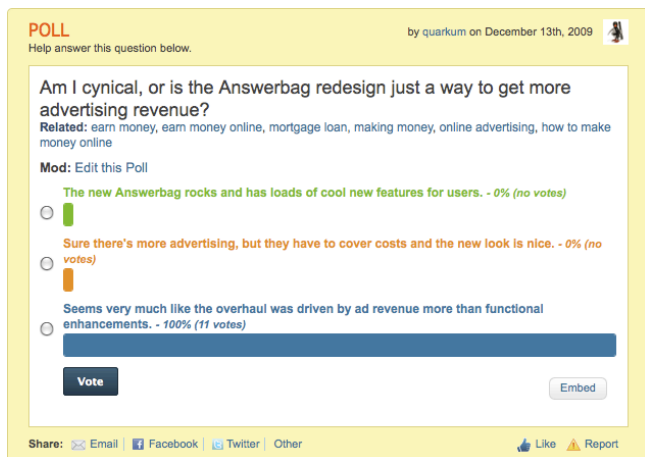


Figure 8: Post-redesign Answerbag poll coded as *Overcommercialization*.

Dissatisfaction with moderation

The initial policy of the site moderators in the wake of the redesign was to let people vent about the changes, even if they went beyond the usual limits of appropriate language. However, the volume and intensity of conflict on the site related to the redesign necessitated a quick and unannounced reversal of this policy, which resulted in expressions of dissatisfaction with the moderation of the site. For example, if one overly harsh expression was removed, it might be reposted in multiple places, each with a link to an equally salty (but unreported) post, as evidence that the moderators were inept, or corrupt. Rogue users were roughly twice as likely as active users to post content coded in this category. Also, some of the comment threads that had temporarily disappeared fed the perception that critical comments had been intentionally deleted. If censorship or biased control of content was mentioned, the action was coded in this category instead of in *Low quality content*.

Support for changes

Few active users supported the changes, and even some comments of clear praise for the new look and functionality were tempered with exhortations to improve further; these “backhanded compliments” were coded in both this category and in *Poor usability/functionality*.

Exodus and migration

By every measure, site activity dropped abruptly and significantly after the redesign (Figure 9). Within one week of the new site’s launch, much of the functionality remained broken. In order to track their friends’ activities, users could only bookmark their profile pages and visit them one by one, or search by username. Ongoing conversations largely ceased, in favor of attacks between factions and laments about the old site.

Conflict was not restricted to Answerbag. While all actions coded for *Harassment/bullying* in the first phase of analysis were posted on Answerbag, many more were collected via reports received through the site feedback link, and included private email messages, chat transcripts and links to other sites where users posted Answerbag-related content, including attacks on users and administrators.

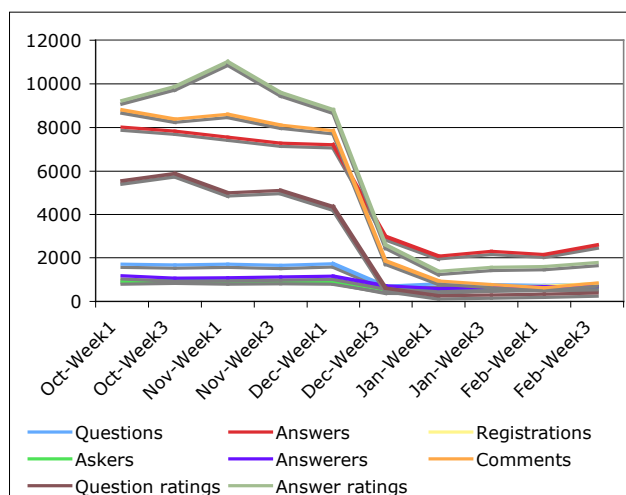


Figure 9: Answerbag site activity, October 2009 through February 2010.

Many of those who had chosen to leave Answerbag actively convinced their friends to do likewise. While some of these entreaties occurred on Answerbag, it is impossible to estimate how many others occurred through other channels. What can be analyzed are the traces of evidence providing an incomplete snapshot of some of the ways in which users communicated, migrated and regrouped on other sites. The second phase of the analysis addressed this question.

Actions coded in the category of *Provide contact information* were analyzed first, though content coded in other categories also tended to include information on where users went and why. These posts and the friend networks of the posters were analyzed inductively, in an

attempt to identify potential patterns of interaction leading to a member's decision to leave the community.

Broadening the analysis in this second phase resulted in the identification of a small group of individuals who acted as extremely active nodes of contact information exchange. The 173 actions coded as *Provide contact information* came from a total of 61 users, including 27 of the 41 rogue users (65.9%), many of whom posted repeatedly in the first days after the redesign. Only 34 of the remaining 478 active users (7.1%) served this function after the redesign.

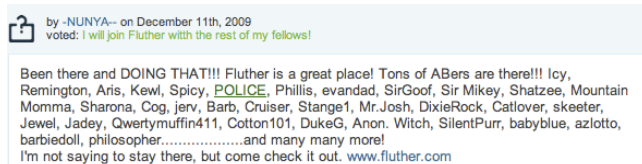


Figure 10: Answer coded as *Provide contact information*, serving as a pointer to the location of 33 Answerbag members.

The author of the answer in Figure 10 had 384 friends on Answerbag, and mentions the screen names of 33 well-known members, encouraging people to visit another site. The sum of the friends of the users mentioned here exceeds two thousand, providing an extremely economical way to connect with lost friends. Posts promising or providing contact information for multiple users were some of the most-often viewed pages on the site. Some well-connected users edited their profile pages to include updates about their location. Several edited their usernames with brief directional information, using the architecture of the system to automatically append their message to every piece of content they had ever posted on the site.

External influences also came into play. When a competing site, Fluther [15], discovered a spike in traffic and a flood of new registrations, they quickly responded with a personalized welcome message, as well as a dedicated FAQ and chat room for Answerbag users (Figure 11).



Figure 11: December 2009 banner graphic from Fluther. The text reads: “Well hello, Answerbaggers! We’ve set up a FAQ and a chatroom to help you become acclimated to the site.”

The Fluther chat room became a frequent landing place for the Answerbag diaspora, who used it to share information, and to commiserate or rage about the loss of the community they had known (Figure 12).

	icy	we were family there, some of us
Shemarq		Yup
Strength		i know.
		i became a christian over that website
	icy	is like a tornado came and destroyed our home.
Strength		and met some people who i now skype and love

Figure 12: Transcript fragment from an Answerbag chat room session on the Fluther site.

Many of the same users who had provided contact information on Answerbag made their presence known on the new sites, adopting the same username and avatar images, and welcoming new users. Other Answerbag users were found on Blurtit [4], Yahoo! Answers [48] and many others, including several homegrown sites created by former Answerbaggers. While Facebook [13] is a social networking site and not strictly social Q&A, two sites were discovered on Facebook, “Friends of Former AB” and “I Survived Answerbag,” the latter of which has 92 members.

The active user retention rate for October 2009 through September 2010 was 203/519 (39.1%). For equivalent periods in the prior three years, the active user retention rate was 55.7% (08-09), 52.0% (07-08) and 49.9% (06-07). In sum, of the 519 active users before the redesign, 266 were identified by their Answerbag usernames on other social Q&A sites shortly thereafter. As of September 2010, a total of 97 of the 266 had returned to Answerbag under their original account name, though only 58 of these still participate frequently enough to meet the threshold of an active user. However, it may be the case that some former members remain active under new accounts. Only six of the 41 rogue users remain, and old battles on the site flare up rarely.

Some interesting questions for future research include a longitudinal, cross-community social network analysis, to study whether individuals with high social capital in one community re-establish and maintain it on another. For example, some of the rogue users on Answerbag became hubs of contact information on new sites, and attempted to revive Answerbag traditions and interaction patterns there—only to be publicly upbraided by the users and moderators of the new sites for not understanding or adhering to the culture of the site to which they had migrated. Certain individuals may have interaction patterns that remain consistent on any site, while others may have strengths that are most evident in emergency or transitional situations. Similarly, a grounded study of the retention rate of those who migrate from one online community to another could inform and motivate better design within communities, and better competitive intelligence between them. Perhaps the presence of an open chat room on the Answerbag site in the wake of the redesign might have allowed members to maintain critical communication.

Summary

RQ1: Why did active, established users abandon this community after the redesign? The most common expressions included the inability to contact friends and view collective content, interpersonal conflict related to supporting or opposing the redesign, and poor usability during the transition between the old and new sites. The contributions of rogue users far outnumbered those of other active users during this period, and many rogue users were both well-connected in terms of friend lists, and had experience working outside the system. They successfully used their suddenly-valuable offsite contacts to encourage migration at a critical time.

RQ2: How did users communicate, migrate and regroup elsewhere? Users took advantage of remaining site functionality, such as editing their profiles and usernames, to communicate and direct others to specific social Q&A sites. A small group of individuals, primarily rogue users, who had the means and motive to broker offsite contact information, created content rich with user names and locations that drew large amounts of traffic, and served as active hubs of information exchange. People used functionality of other sites to adopt familiar usernames and avatars, to welcome and friend fellow self-exiles, and to mourn the old site.

CONCLUSION

This paper has provided a descriptive analysis of a large-scale redesign of a social Q&A community that resulted in a mass migration of longtime users from the site. Prior research suggesting the critical importance of communication and access to collective content in online community participation is supported. Changing the interface both exacerbated existing tensions in the community and provided the conditions for fragmentation, which was disproportionately facilitated by rogue users. Disrupting communication, even for a short time, did demonstrable harm to this social Q&A community, and the migration patterns of its members may reflect patterns applicable to other online communities, and information flows in other emergency situations.

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