

Core Groups and Coherence: Position Paper for CHI 2002 Workshop on Discourse Architecture*

Danyel Fisher

Information and Computer Science
University of California Irvine
Irvine, CA 92697-3425 USA
danyelf@ics.uci.edu

ABSTRACT*

The idea of a core group of participants in a newsgroup is discussed, with particular reference to one newsgroup that has been the continuing object of study for several years. The role of the core group in the newsgroups' continuing coherence is considered.

INTRODUCTION

Some recent work has suggested that asynchronous social spaces are held together by a central core of participants: a series of experienced members that drive the group, maintain traditions, and generally hold the group together. These take different forms in different spaces: village elders and senior consultants are two traditional forms. Although many modern spaces don't necessarily reward age and experience, those can be important cues for locating expertise.

For comparatively new spaces with higher turnover, such as Usenet groups, it can be harder to locate experience. One usual touchstone has been to examine frequency and ratio of being answered; thus, projects such as Marc Smiths' "[Netscan](#)" reward frequent posting.

A form of coherence, then, is the long-term coherence of a group's notion of self-identity. Admittedly, identity of a group can change, both slowly and quickly; experienced participants may leave, and new participants may come in. But there will be, at any given moment, a sense of history and of present interaction to the group.

My belief is that it is those long-standing members who help keep group identity strong and continuous, by keeping conversations in line and by reinforcing the standards. They also use less supportive interactions, such as keeping control of a canon of in-jokes. The recognized central core of participants has a number of responsibilities, such as keeping the conversations on topic, but also has a number of privileges, such as an ability to digress further from the conversational center than other readers can without being accused of being off-topic.

Their presence can be detected and understood with a series of tools, including conversational pace and social networks;

I claim that those users' virtual heartbeats can be seen through a variety of electronic tools.

It is less than clear to me what to do with these facts, once gathered: certainly, no interface to a group is really a replacement for reading it for a time, and it is not necessarily wise to over-emphasize some core: a group may have a hierarchy for a reason. It may be highly inappropriate for new users to directly approach the three or four most experienced members; newer regulars might be just as able to answer the questions. On the other hand, this sort of interface may help make implicit norms explicit, and could assist new users into making more valuable contributions.

CASE STUDY IN COHERENCE

To make some of these ideas more explicit, I'd like to explore the interactions on one Usenet group in particular. For a number of years, I have followed the Usenet group "alt.folklore.urban," first to research an anthropology class assignment, and since then due to a growing fascination with the well-established social order the seems to anchor the group. I have chosen this group, then, because they have a certain degree of introspection about their own social mores, and so have posted lists of heavy participants; and because they have a long-established cultural tradition—that is, a shared, long-term form of social coherence.

The groups' participants have gotten used to being flooded by new users who run into their work from web searches; as they deal in trendy urban legends, they always come up high on search engines. Therefore, they have established a series of protective shells that they use freely. It is worthwhile exploring the tools the group uses to maintain that coherence, and to consider ways that the coherence might be highlighted visually.

In-jokes

One easy indicator of group identity is in-jokes: an in-joke contains an implicit history of a group, by referencing previous discussions. This group in particular has chosen and, to some extent, canonized a series of well-known in-jokes. Many of these jokes have been around for years; for example, the [Google](#) archive shows many of them archived in the groups' FAQ as far back as 1992. Despite their being publicly archived, new users tend to run into them and mistakenly suggest that they represent typos. The

* Preliminary draft only: feedback invited, but not for citation.

overwhelming response from the group is a ritual for established users to connect over.

Old Hats and Rankings

The group has a central core that most of the regular participants know. In fact, the newsgroup has named their central core. Those members that are known for their combination of usefulness, enthusiasm, and history gain the recognition of becoming “old hats.” The title is one that users have only retrospectively—“old hat”-ness is dubbed as a matter of group recognition months or years later. They are known as “carriers of the AFU torch” and are seen as a dominant force in the group. If they are flamed, others in the group will leap to their defense: so much so that other users perceive them as having armies of trained thugs. As one disgruntled participant wrote,

“There isn't any “fight,” here, because the AFU old guard doesn't fight. They don't have to. If you challenge anything one of them has to say, or take offense at an unwarranted insult hurled at you, a handful of his or her pals are sure to jump in and defend them...against what, I'm not sure.”

In one conversation—a thread of 134 messages springing from a naïve user asking about an in-joke—the group attempted to come to consensus on rankings of members within the group. With tongue in cheek, they distinguished several types of “newbies” (“clueless”, as distinct from “innocent”); separated the “annoying weiners” from other infrequent participants, and then the “regulars” who make up the mass of the frequent contributors. Few among the regulars might eventually be promoted to old hats. Later posts attempted to distinguish between types of lurkers (in order to distinguish loyal readers from searchers, and to find a special category for ego surfers like “kibo”).

One user even produced an explicit list of old hats; there was no debate about the participants mentioned in the list.

Old hats have a number of privileges not accorded to other users. Besides their goon squads, for example, one contributor to the list of Old Hats suggested that they can freely wander “off topic at the drop of a hat, usually with good results”. Interestingly, a lesser user introducing the sort of topic drift that old hats are allowed to introduce would be severely criticized by the rest of the group, and the thread would probably die off quickly.

On the other hand, there is a strict code of ethics to the writing style they use. For example, it is a point of pride in this group not to use “smileys:” a good writer should be capable of communicating emotion without adding “line noise,” as they call it. Although some regulars are allowed to slip up, old hats do not slip up—the few times that they have, it has become a major topic of discussion. The posts from “old hats” are seen as authoritative summaries of discussions or as crucial questions to investigate,

There are no immediately obvious constraints on whether old hats typically respond mainly to new or older participants; however, closer research might reveal that old

hats prefer to allow someone else to respond to “flames” and “trolls”, and will tend to respond only to responses from regulars. Old hats don't necessarily respond to each other, either: they prefer to distribute their energies across more of the group.

Who Holds the Group Together?

So the question comes: who holds the group together? If it is the case that old hats tend to respond to regulars, then the groups' social network might be seen as a dense network (perhaps a 2-clan) of old hats, orbited by regulars. The regulars, in turn, might have an even looser network of the outer layers.

The group seems aware that all the layers are necessary: from old hats, to the newbies (who provide much of the groups' novel material, including the mistakes that allow the group of rally around their in-jokes), all the way out to the lurkers who absorb the group culture and may start providing on their own contributions, later. (In the past, I have absorbed a minor battle between a series of regular contributors boasting about how long they lurked before they started posting to the group).

The meat and potatoes of the group are certainly the regular contributors. But the more unusual slice, and the people who users seem to both refer and defer to, are the central core.

ANALYSIS OF THE CENTRAL CORE

A number of recent projects have attempted to isolate unique contributors. Loom (MIT media lab) has periodically searched for central participants; Netscan automatically locates the heaviest contributors. The social networks of the Conversation Map can help locate central players in the group.

In order to properly analyze this group, it would require several different types of analysis. First, a raw *social network* of who answers whom must be discovered: who participates, and who winds up being central? A coloring of that network would, perhaps, reveal the central core of the group.

Other approaches would need to be used simultaneously. A *co-citation* analysis would give a sense of what users quote each other. Presumably, culture-carrying members would be more-quoted than newer members.

Last, the presence of old hats in threads could be investigated. Do they tend to introduce, or end, threads? Does the presence of one tend to indicate that others, too, might join in? It seems logical that influential contributors might begin conversations; they might also be more able than most to declare a topic dead in the water, and to discourage regulars from following up on the topic.

In other words, there may be certain visible attributes of a central core that would be testable:

- dominance in conversations
- strong interlinks in social networks
- frequent position at start and end of conversations

It's entirely possible I'm wrong. It may be the case that this newsgroup grants kudos merely to the most prolific members. If that were the case, Netscan's analysis of AFU would show old hats at the top of the list. Interestingly, it didn't show any of the identified old hats as top-rated contributors. This might be because many of them are long-term contributors, and the short-term analysis run by Netscan could miss larger patterns. It will be worthwhile to review the results from simple frequency analysis.

The Jokes they Tell

Given that the core group members are the guardians of in-jokes, it might be valuable to locate the core through their jokes. In-jokes are often readily identifiable. They are bits of text that occur far more often than one might expect for their usual frequency in language. "Fuurfu!" and "voracity" are terms fairly unique to the group; a quick search could isolate their uncommon usage. This might, in turn, lead to more of the regular members who would, presumably, be more likely to use the vocabulary than newer members. (Admittedly, social-climbing members might overuse terminology, in an attempt to prove that they do belong to the inner group.)

The Groups They Run

Online groups tend to share certain attributes. For example, they seem to have characteristic paces: for any group, there is an optimal time between readings to really keep up with the proceedings. If someone checks in too often, they find themselves bored by a lack of conversation; if someone checks in too infrequently, the conversation passes them by. If too many people contribute too often, the group either changes pace, or those people get discarded as making too much noise. Presumably, that pace is analytically determinable by looking at the participation patterns of frequent contributors. (This idea is related to those in Q. Jones *et al* 2002 HICSS paper on conversation frequency in newsgroups).

The Threads They Read

In the quest to find lower- and higher-status members, certain questions come to the fore that have substantial bearing on the research. Do conversation threads, for instance, self-prune? That is, do they divide into branches that are "good" and "bad," with the "bad" threads consisting of less-interesting posts or less-interesting contributors? How likely are newer members to respect the judgments about thread usefulness made by more senior members?

Possible Disagreements

There are plausible reasons to believe that the collective judgment of the group is flawed, that the central core doesn't drive the group dynamics. That might be interpreted by examining the Slashdot website, and its so-called "dark underbelly." Slashdot has a moderation system; users who write well-reviewed posts are invited to become moderators and review, in turn, other posts. The process is automated; in general, a fairly regular participant can become a moderator.

Moderators who are displeased with a post can rate it "-1." Those posts get pulled out of public view; most users, by default, read posts only with ratings of 0 or better. Therefore, those "-1" posts will be entirely ignored. This has led to a culture of participants reading and contributing to Slashdot, intentionally forcing their posts down to -1. To be sure, many of those posts are insipid: "First post!" and "Natalie Portman" are the topics of a good half of them. However, there are also extensive discussions of the conversation "above" that are shared on this lower level.

Most techniques I've discussed in this paper would have a great deal of difficulty identifying this dark underbelly of Slashdot, and the two separate communities of "comment readers" and "-1 readers."

PRACTICAL PROTOTYPE

These techniques were tried on the newsgroup *alt.folklore.urban*, for posts from January 23 to 26, 2002. Other venues for communication—large mailing lists, web sites, and similar—have grown up, so the population is somewhat different than before. The newsgroup has changed somewhat since the reign of the "old hats;" none of the posters listed as an "old hat" has contributed actively to the group for quite a while. The set of in-jokes, too, has dropped, a result of somewhat mixed value.

Nonetheless, certain regularities in group behavior do continue: there still are certain social patterns that recur, and members of the group still discuss urban legends.

In order to get some sense of the current shape of the group, a single thread was analyzed for conversational patterns. While the larger discussion containing this thread consisted of several hundred messages, this branch of it contained some fifty messages.

Messages were coded for the *date of posting*, for the *author's frequency of posting across the newsgroup*, and for the message containing *in-jokes and keywords*.

The results of the coding—a thread diagram—are attached as Figure 1. There were some surprises from the coding. For one thing, there were fewer marginal members than expected: most people who posted to the thread had posted more than once. The few who were singletons were *not* shunned or ignored; rather, their contributions are as likely to be toward the center as it was to be peripheral.

More surprisingly, those users who used the group's in-jokes were not necessarily the most-posting posters. The figure is slightly confused by in-jokes that appeared in the poster's signature; that occurred once each for a frequent and an infrequent poster.

There was insufficient data to map social network ties (based on responds-to ties) over this diagram; however, some tentative figures suggest that the social network lines follow the darkest nodes. If that is the case, there still would be a conversational core, although they distinguish themselves from the classic "old hats" in new ways.

mysterious
past
messages)

January 23
January 24
January 25
January 26

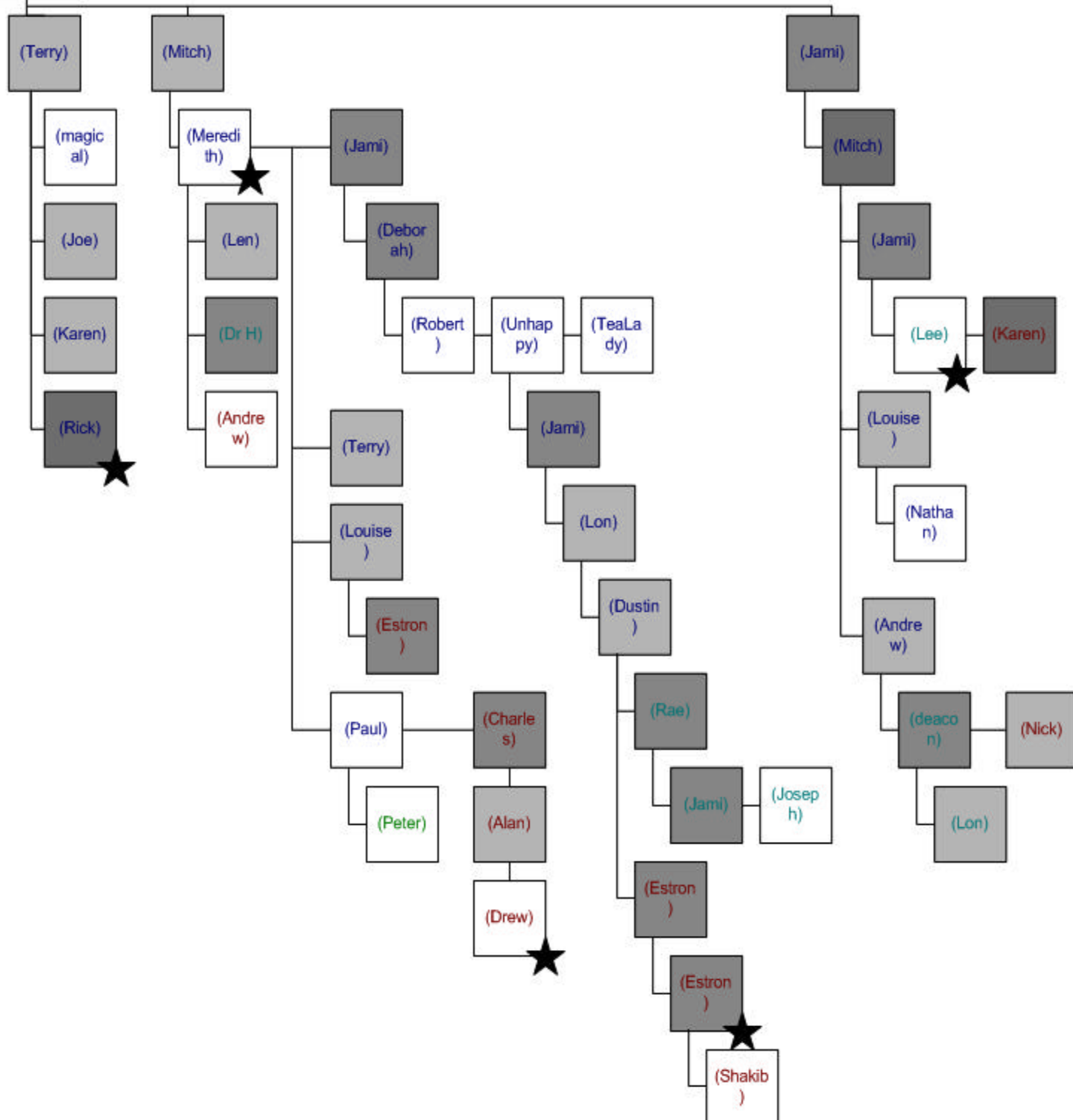
few
More (3-7)
Many (8-12)
Lots (13+)

More (3-7)

Many (8-12)

Lots (13+)

Re: Airline
pilot Sucks
sighting
(Ragnar)



PRELIMINARY DRAFT ONLY. FEEDBACK INVITED, BUT NOT FOR CITATION.

CONCLUSION

Social networks, thread diagrams, and conversation pace have each been useful in past projects. After reviewing their results, it becomes increasingly worthwhile to get more refined data, and to compare that against real results from living, breathing groups. Do participants respond to people the way the numbers suggest?

This initial experiment—small-scale, on a single thread in a single group—helps show some of the surprising conclusions that can come of bringing these issues together. While many of the various facts explored in this paper have been available en masse, it finding and diagramming the overlap that is unusual.

In bringing together several of these ideas, we hope that we can find opportunities to explore even more of them later.

APPENDIX

I am a graduate student at UC Irvine, in the Interaction and Collaborative Technology research group in the department of Information and Computer Science. My research emphases are on information visualization and large-scale social information exchange.

I have done past work on [*mapping Usenet groups*](#), and analytic and visualization work on datasets based on [*email response patterns*](#).