Abstract

I present a dynamic method for visualizing a conversation-based network built from IM logs and emails based on an ongoing instant message conversation. Conversations will be annotated and cross-referenced in-line with other conversations that can then be viewed, clipped, redacted, and shared with others, or simply browsed for reference.

1 Motivation

Conversations are rarely unique. Often times they are threaded and comprised of many sources. People are rarely linked only by other people. Often times friends meet through people, but the friendship is more than just a bridge of people. Often time friends and acquaintances form because they tend to enjoy discussion of the same interests, or sometimes they communicate because of necessity of work. I want to show that not only linking people in this way is better than through the mere knowing of another person. Once the meaning of the relationship is derived, useful information about the relationship may be made salient.

2 Method

2.1 Initialization

If a user is just starting to use the system, it may be helpful to index their existing conversations. The conversations will be analyzed for key phrases and then indexed in a database on those keys and also their email address or screen name. However, this is not strictly necessary, if for example a user has no instant message logs.
2.2 Key Phrases

As an instant message conversation takes place it will be analyzed for key phrases and links to cross-references added to the message. Simultaneously, indexes on those phrases for the conversation will be placed in the database. Allowing future references to those keys to cross-reference with the ongoing conversation.

2.3 Key People

Important people to the conversation can then be inferred by the conversations that the key phrases link to. These people can be listed and the network for a conversation can automatically be made salient. Linking people by key phrases from conversations is much more useful than just a top down view of networks of friends, because the key words provide a concrete linkage, rather than just showing that people are acquaintances or share the same interests.

3 Special Considerations

It may be helpful to index certain phrases by date like “meeting on Tuesday” or “last Saturday’s party,” but translate these phrases into date references. This could help immensely with finding conversations about a specific event.

4 Observations

Obviously, keywords are not always the most reliable, and it remains to be seen whether useful phrases can be extracted from ad-hoc conversation like IMs. There are known issues with trying to parse dates from natural speech, but the benefit probably outweighs the false hits. Only experimentation will show whether users like the feature. This feature can also be applied to emails, but the real-time keyword feedback is probably most useful to ad-hoc conversations.
References

   http://smg.media.mit.edu/papers/Donath/EmailArchives.draft.pdf