

Apeer: A Peripheral Interface to Improve Social Awareness of Brief Topical Discussions

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INTRODUCTION

A small but significant portion of online communication patterns can be characterized as brief, topical discussions. One example of a brief, topical discussion is sharing URLs. Most everyone sends and receives URLs, often sent to several people at once, on a daily basis. However, existing communication mediums do not effectively support this activity. Though it can be ignored or dismissed, receiving a link through instant messaging (IM) is interruptive and can require a typed acknowledgement to avoid seeming rude. Group chats within IM require a further degree of engagement not always justified by an individual's interest in the link. Emails can be similarly intrusive, might also require an acknowledgement, and may lead to group discussions that can quickly overflow an inbox. Weblog posts support topic-based discussions, but do not effectively show new activity across a set of topics at a glance.

Apeer is a social visualization for brief, topical discussions within groups. It builds common ground and creates social awareness by showing who is online as well as what has been read and commented on. The peripheral interface emphasizes salience by sinking unread topics and shows trails of activity below what's most popular.

Our work is informed by past work on visualizations of social activity within small groups, including those for chat [1] and those utilizing *social proxies*, minimalist graphical representations that highlight significant aspects of social interaction within a given context [2].

DESIGN

A set of "topic circles" is displayed right to left in order of submission (Figure 1). Smaller, "activity circles" trailing below a topic circle are either hollow, signifying that a user

read the topic URL, or solid, representing a comment left by a user on that topic. The color of a circle corresponds to the user who committed that action. Over time, topic and activity circles move up as interest increases or down as interest dwindles, eventually disappearing altogether. Consequently, timely and active topics are made more salient through visibility and placement.

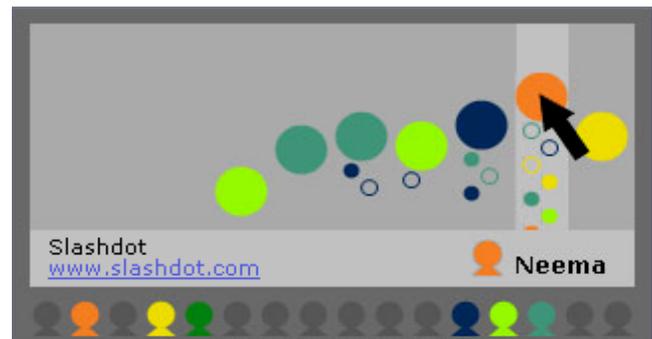


Figure 1. The Apeer interface showing seven topics.

EVALUATION

We facilitated two user groups in interface testing. Many but not all of the 12 participants in Group A knew each other before participating in the study, while the eight participants in Group B all knew each other well. Both groups were given a brief online tutorial on using the application. The activity in Group A consisted of users sharing casual information that resulted in a larger number of topics but superficial comments. There were fewer topics in Group B but a higher volume of comments per topic. During interviews conducted after the study, participants in both groups reported feelings of social connectedness even when the interface was in their periphery. Some felt a sense of ownership, even competition, when monitoring the volume of activity surrounding a topic they submitted.

REFERENCES

1. Donath, J., Viegas, F. The Chat Circles Series. *Proceedings of DIS 2002*. ACM Press.
2. Erickson, T. Designing Visualizations of Social Activity: Six Claims. *Proc. CHI 2003*. ACM Press.