Kinetic Typography-Based Instant Messaging

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ABSTRACT

Kinetic Typography, text whose appearance changes over time, is emerging as a new form of expression due to its ability to add emotional content to text. We explored the potential for kinetic typography to improve the way people communicate over the Internet using Instant Messaging (IM). Our Kinetic Instant Messenger (KIM) builds upon applications for rendering and editing kinetic typography effects and addresses several design issues that spring from integrating kinetic typography and IM.

Keywords

Kinetic typography, dynamic text, instant messaging, chat

INTRODUCTION

Kinetic Typography is "typography that doesn't stand still" [1]. It can be found in film titles, music videos, TV commercials and websites and is emerging as a new form of expression due to its ability to convey emotions, personality and tone of voice [2]. Despite kinetic typography's great potential as a communication tool, it has been largely unexplored in this respect. This is partly due to the difficulty of creating kinetic type with the current tools available.

In this work we explore the use of kinetic typography for Instant Messaging (IM). IM is a widely used mechanism for real-time text-based communication between two people over a network. IM text is commonly augmented by the use of emoticons as a means of expressing emotions and specifying tone of voice. For example, the phrase "I am fine" will be interpreted differently when followed by emoticons such as ":-)", ":-|", or ":-(". Emoticons, however useful, provide only a very limited manifestation of emotion. In comparison, kinetic typography effects can greatly improve the perceived emotional content of text. Figure 1 shows how the same phrase can be interpreted differently based on the kinetic presentation of the text. In 1a, the phrase could be interpreted as relatively ambiguous and neutral; in 1b, the rotation and position of the text could indicate a positive and lighthearted mood; in 1c, the size

and capitalization of the last word could indicate a feeling of mania, anger or annoyance.

To further enhance personal expression in instant messaging, we have created a Kinetic Instant Messenger (KIM) that integrates kinetic typography with instant messaging. This system builds upon (and makes use of some code from) prior work on a kinetic typography engine [3] and Kinedit [2], a kinetic typography authoring tool.

DESIGN CHALLENGES

There are several design challenges associated with integrating kinetic typography with instant messaging. The first challenge is that IM is a fast paced communication medium where users take very little time to compose their messages before sending them off. This includes the process of adding emoticons, which can either be chosen from a list or typed. Thus, in our design, we needed to minimize the amount of time that it would take users to add kinetic typography effects to their messages.

A second design challenge is that, as mentioned in [4], IM users are often multitasking, and not concentrating on the conversation. IM clients are generally well suited for this sort of behavior since they don't require constant attention. Indeed, they list the messages in a dedicated window and give the user the ability to scroll up to read messages that he/she might have missed. With kinetic typography, there is a trade-off between highly expressive (e.g., violently shaking) and persistent or lingering effects, because the text's motion is what catches one's attention and conveys emotion. Herein lies the conflict; if a user were not focused on the KIM client when a message was received, he/she would likely miss it.
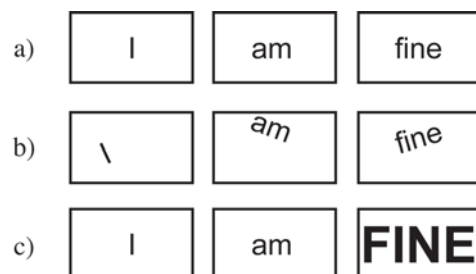

Figure 1. Kinetic effects change the perceived emotional content of an ambiguous phrase.

KIM FUNCTIONALITY

KIM addresses the first challenge we described above by adding keystroke shortcuts to the existing Kinedit formatting functionality. Each kinetic typography effect is modal and can be enabled by pressing the ALT key and the first letter of the effect, much like the bolding of a word can be controlled by pressing CRTL key and "B" in a word processor. Once an effect has been selected in this fashion, it can be deselected by using the same keystroke combination or by starting a new effect. These keystroke shortcuts allow users to enter, format, preview, and send messages without removing their hands from the keyboard.

We resolved the issue of non-persistent messages by creating a conversation log similar in appearance to those found on standard IM clients. As the kinetic typography message is played, it is also added to the conversation log in regular text. In addition to providing a visual record of each message, the conversation log provides a variety of playback options. The user can click on any message line, or use "rewind" and "fast forward" controls to see a particular message re-animated. The "play" control allows the user to replay the entire log of messages from any starting point. The message playback can also be paused and restarted at will. The functionality of these controls is modeled after that of controls on a movie or music player and is tailored toward the ephemeral nature of kinetic typography.

KIM provides users with four different composite effects (groupings of detailed animation specifications): Hop, text jumps up from and returns to the bottom of the screen; Yell, text zooms in quickly and shakes; Construct, individual letters rotate and slowly converge in the middle of the screen; and Slide, text scrolls horizontally across the screen, fading in and then out as it moves. (Video clips of these effects can be found at http://www.lerru.com/kim.) When no effect is selected, KIM uses Hop as the default effect.

CONCLUSION

Kinetic typography has the capacity to dramatically add to the way people convey emotions while instant messaging. We have designed and built KIM, an IM client that addresses the main issues in integrating kinetic typography with IM. KIM builds on Kinedit, an authoring tool for kinetic typography, to provide users with the ability to add kinetic typography effects to their messages rapidly using keystroke shortcuts. Once they have received messages, users can play them back easily using playback controls, thus ensuring the emotional content of the conversation does not get lost. During testing, we found that we were able to send highly affective messages back and forth.

However, work remains to be done on KIM. Specifically, we do not yet handle communication over a network. This would enable us to test our IM client and get feedback from users. Further work should also be done to enable users to manipulate effect properties such as speed and size.
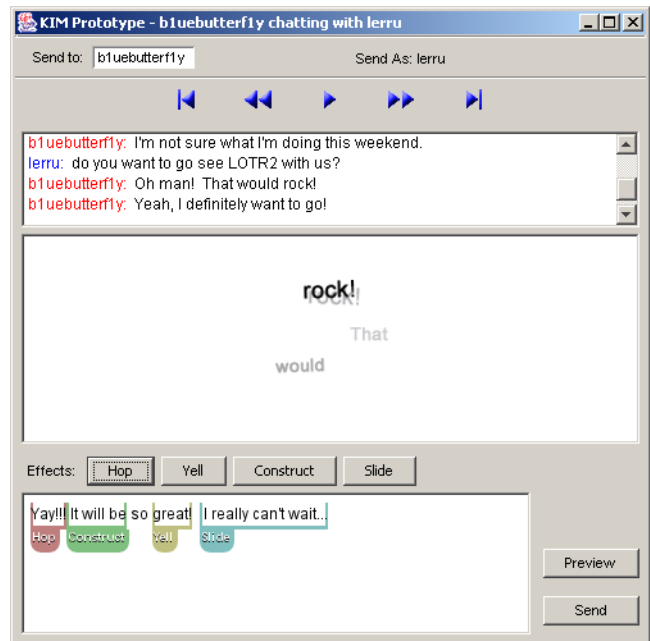

Figure 2. KIM displays incoming messages and replays messages in the main conversation window. Messages are composed and edited in the composition window at the bottom. Tags inform the user of any kinetic effects that have been added.

MORE INFORMATION

For more information or to download KIM, please go to http://www.lerru.com/kim.

ACKNOWLEDGMENTS

This work was conducted as part of class taught by Scott Hudson at Carnegie Mellon University. We thank Scott Hudson and Johnny Lee for giving us access to the Kinedit and kinetic typography engine code. We also thank Jeffrey Nichols and Dan Boyarski for their input and encouragement.

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