Toward a New Communications Genre

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To better understand the relationship between technology and human expression, the Socio-Digital Systems Group at Microsoft Research in Cambridge, UK, has established a program of research called New Communications Genre. This program is exploring ways to integrate existing technologies—especially messaging—to encourage novel forms of interaction.

WHY DO THIS?

After all, don't we already have too many communications channels and technologies? We rely on multiple forms of electronic communication—including instant messaging, e-mail, wired and wireless telephony, and text messaging—to carry out different tasks. And despite the availability of instant communication, we continue to use paper mail. Why another channel?

It may be that some channels do different things, of course. We should not forget that the telephone, though a century old, has not replaced paper mail. It would appear that people like to write as well as speak. But then again, e-mail hasn't replaced paper mail, nor has IM replaced e-mail.

BETTER TECHNOLOGIES?

Obviously, technology drives change—just as the quill and velum enabled letter writing and the Internet fostered e-mail. And so, perhaps what we ought to be doing is trying to develop technologies that best satisfy the variety of human needs for communication–defined thus far as the need to talk and to write. But this seems too simple: It sounds like a case for technologies that are better than their predecessors. But better in what sense? By what measure?

In relationship to communications technology, the answer is typically considered one of *telos*, or separation by physical distance: "I am here in Cambridge; they are there in Redmond." Accordingly, we could argue that communications technology has developed historically to reduce this problem of geography.

This seems persuasive. But is communication always a question of overcoming physical distance?

We have already created an orthogonal dimension: Sometimes we want to use the written word to communicate across distances, but other times we prefer the spoken word. But is this all?

While letters do solve the problem of sending words across distances, that's not always what letters do. What about documenting and receiving? Even when I am with someone, they may choose to document something of mutual interest and give it to me there and then. Something else is going on.

CREATIVE MESSAGING

If you look at many of the SMS messages teenagers send one another, you will find that some of them are artfully created—one might say crafted artifacts—reflecting much more effort than needed to create a simple message. Often, the recipients treasure

Combining existing communication technologies can encourage novel forms of expression.

such messages, save them, and even show them to friends.

Not simply a way of dealing with telos, texting can thus be considered a way of creating and sustaining bonds between people through the giving and receiving of text gifts. (There is, of course, a long history of anthropological research into giving and receiving; our own research simply shows that this remains a contemporary practice whereby people—particularly teenagers—build the social fabric of their world.)

DIFFERENT COMMUNICATIONS CHANNELS

Couldn't other channels allow gifting and thus let users build social relations? What's wrong with e-mail or the traditional letter? We can always improve these channels, but this design-by-improvement philosophy constrains us. Clearly, different communication channels afford different advantages—some technical and some linked to human endeavor.

At first, SMS was used for communicating short messages about network

Figure 1. The Appliance Studio's txTboard. The wall-mounted device displays SMS messages from family members or friends to its own phone number.

traffic to maintenance engineers, but text soon evolved into a channel for communicating about intimate and private matters. An e-mail, by way of contrast, is relatively longer and more official, although still relatively collegial. An e-mail has these properties in part because of its content, where it arrives, and how the recipient deals with it—such messages typically are triaged rather than being dealt with immediately. Nor are most e-mails intimate; after all, they arrive in one's desktop in-box, hardly the place for love notes and tenderness.

In the Socio-Digital Systems Group, we have been thinking a great deal about this relationship between human endeavor and communications technology. We have come to believe that this relationship should not be reduced to mere geography but that, instead, different communications channels offer different possibilities and experiences for people. These new possibilities and experiences in turn create new roles for technology as people learn the technology and then alter it to do yet more things.

HOMENOTE

We decided to start by looking at current patterns of messaging and see if we could discern some practices that might, with the right technology, afford something fresh.

One of our initial observations was that a high proportion of text messages among family members deals with domestic management. We also noted that a traditional wireline phone, unlike a mobile phone, provides a means of messaging to anyone in a home rather than to a particular user.

These observations led us to the idea of creating technologies that would allow—and hopefully encourage—*domestic messaging* or, more generically, messaging to a place.

Homenote is one such system that enables person-to-place text messaging. This system is designed to be an evolution of txTboard (www. appliancestudio.com/sectors/smartsigns/ txtboard.htm), a prototype display system designed by the Appliance Studio in Bristol, UK.

As Figure 1 shows, txTboard is a wall-mounted device that shows SMS messages sent from family members or friends to its own phone number. In
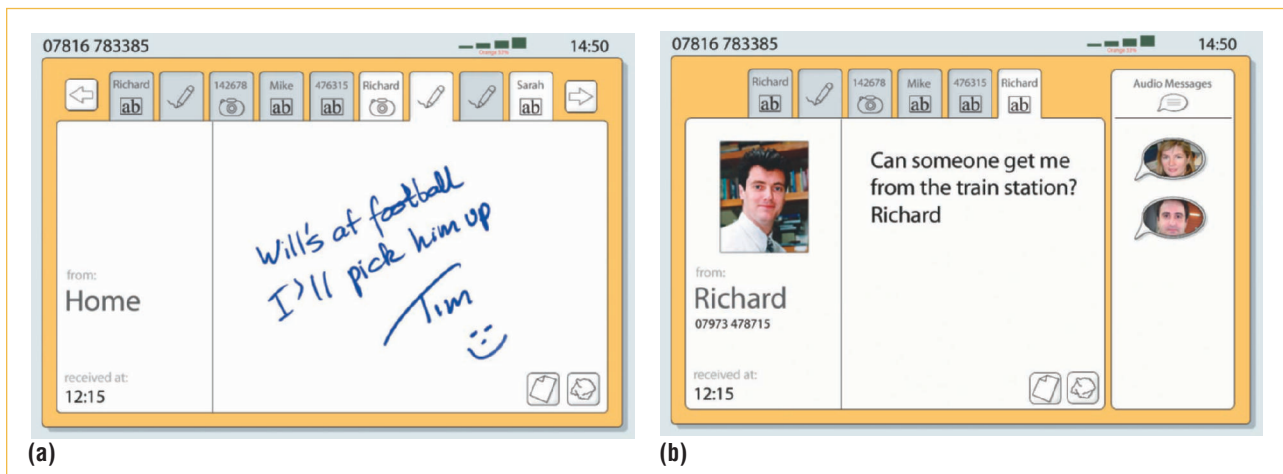

Figure 2. Homenote SMS messaging system. (a) Users can create home-bound messages with a stylus. (b) "Voice bubbles" show at a glance who has left a voice message.

addition, because it associates a caller line with an identity, users at home can see at a glance who has sent a message.

Homenote combines SMS technology with the ability to create messages using a stylus—what we call "local scribble notes," shown in Figure 2a. We deployed several Homenote systems in houses around the Cambridge area to observe how average users would use the technology.

Initially, there were not enough domestic messages to justify the application's existence. However, once families discovered the ease with which they could create and send messages, they started using Homenote more often, primarily to deal with immediate or short-term situations—messages for "odd things that happen and make you change the plans for that day," as one individual put it.

Some users in our study suggested adding new features to Homenote. For example, one family proposed a voice-message function that, unlike traditional answering-machine systems, would let users see at a glance who a voice message is from. This idea inspired us to create "voice bubbles" as a novel way of presenting voice messages, as Figure 2b shows.

BROADENING INTERACTION

Homenote can hardly be described as a radical step in the evolution of communications technology; it's a situated display enabling person-to-place messaging. Yet, oddly, in doing this, we have brought ourselves back to telos, to the problem of geography—the distance between people and places—and, through that, the problem of getting to people in those places.

In addition to person-to-place communication, the New Communications Genre program is examining ways to broaden person-to-person interaction. For example, in cooperation with the Vodafone Group Research in Newbury, England, we're prototyping Touchtalk, a messaging system that enables users to convey a range of emotions through graphical representations and tactile input and output mechanisms (http://research.microsoft.com/sds/touchtalk.aspx).

Touchtalk is deliberately designed to afford more than what we expect users to want, at least initially. Like Homenote, it is a vehicle for exploring and helping to create the resources for users to evolve their own endeavors.

My aim here has not been to describe these technologies in detail but to introduce our program and philosophy.

It might seem that my colleagues and I are working on technologies that let people discover new needs—in turn justifying our technological solutions.

Yet, for us, technology and humans go hand in hand; we do not believe it is always clear which leads, and in our view it doesn't matter. The relationship between technology and human action is like a dance: What makes the relationship worth supporting is its desire to produce new forms of expression and meaning. We craft the means for that end. ■

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