

Commentary on Electronic Instant Messaging

Kyle Ross

Undergraduate Student of Computer Science, Philosophy, & Logic
Rensselaer Polytechnic Institute
rossk2@rpi.edu

10th August 2002

Special thanks are due to Armando, Sean, Jen, Jack, Kevin, Rahela, et al. for unwittingly providing me a great deal of food-for-thought regarding the topic of this paper.

The internet has changed the way that people communicate. Whether chatting online is your primary form of interpersonal communication or you have never touched a computer, this is an easily-observable fact that only the most obtuse among us can fail to acknowledge. This is meant as an analysis of the validity of the internet and associated technologies, particularly instant messaging, in bona fide communication.

It is assumed that the purpose of communication is to transmit ideas—in whatever form that transmission might be—to another party or parties. Hence, any communication may be modelled by the following six-stage process: 1) the sender composes an idea, idea-original, that he or she desires to transmit 2) the sender encodes the idea as a message for transmission 3) the sender transmits the message 4) the recipient receives the message 5) the recipient decodes the message and 6) the recipient creates the idea, idea-prime, which is the ultimate result of the transmission. A communication protocol can be judged based on how accurately idea-prime resembles idea-original.

There are a number of philosophical barriers related to the existential nature of ideas involved in judging how closely an idea associated with the mind of one individual resembles an idea associated with the mind of another individual, but this is a moot point beyond the scope of this discussion. The rough metric of “I know what you mean” will be applied as the best available test of idea-transmission accuracy.

Let the term “direct communication” refer to communication that occurs between two or more parties that are located in the same place at the same time—traditional, face-to-face discussion. This term will be used because it is as non-judgemental as possible (as opposed to “real communication”, “old-style communication”, etc.) and conveys fairly accurately the most outstanding attribute that characterises such interaction: such communication is unusual (as compared to other forms of interaction) in that the persons involved in so doing are directly relating things to one another without the aid of any external technology.

Talking face-to-face (i.e. direct communication) has never and will never be equalled by any technology. When two or more people congregate to discuss, to argue, to speak, to listen, a number of important factors are present. One of the most important, of course, is spoken words. Much of what we communicate is conveyed through words and the way that we string them together. This is the only portion of communication that is replicated by online technologies.

Direct communication was the first means created which was fully-expressive (i.e. provides constructs whereby both concrete explanation and abstract idealisations can be conveyed) and serves both as archetype for communication and the standard against which subsequently-developed communication methodologies may be judged. After spoken languages were developed (the nature of the language and the branch of linguistic anthropology along which the language developed are irrelevant), people combined this system with the previously-available forms of expression: gestures, facial expressions, body language, etc. to create the most expressive communicational mode that had ever existed: the aforementioned modalities (e.g. words, gestures) serve to deliberately transmit intentional messages (i.e. messages that are about something) and subtle factors such as modulation of voice (e.g. tone, pitch, volume), modification of facial expressions, etc. serve to deliver the “invisible sub-text” of the conversation—both subjective evaluation of that which is being said and, on the part of the listener, a non-verbal doxastic dialogue ensures that both parties are “on the same page”. It is the latter set of factors that give direct communication its evocative and expressive power.

Live music (another form of direct communication and a superset of face-to-face discussion) is the single case that has succeeded in surpassing vocal direct communication in its ability to convey meaning efficiently. Music adds instruments, etc. which can be viewed as ancillary communicative tools to those of the prototypical model. Much as an hypothetical person able to speak with two voices concurrently could deliver the body of his or her message with his or her main voice and provide supplementary explanation with his or her second voice, a person and an instrument operate likewise.

All other means of interpersonal communication—the reader is challenged to find a non-trivial exception—attempt to replicate the expressiveness of direct communication. Most have failed to do so properly.

The first surrogate for direct communication was creation of meaningful images—a pictorial form of writing—which later developed, in the contexts of a number of societies, into modern writing (some societies maintain use of obsolete forms of writing, such as pictograms). Written communication has a number of positive aspects. The term “letter” will refer to a generic piece of hand-written communication including letters (in the conventional sense of the word), diaries, notes, etc. The way in which the letter is written—the manner in which the words themselves are created out of ink, the relative spacial proportions (i.e. relative sizes) of various sections of characters, words, etc., the relative spacial positioning of text on the page, etc. allow for a large number of degrees of freedom in creation of the message—something of an analogue to gestures and facial expressions. The expressiveness of the words (i.e. the sequence of elements chosen from a theoretically unabridged dictionary of the language) themselves remains unaltered, but the number of degrees of freedom that written communication affords is vastly outnumbered by that of orality.

The printing press was the next major innovation in the technology of communication. It created the possibility of large-scale information dissemination. It, and its descendants (e.g. typewriters, modern printing presses, newspapers, photo-xerography, computerised word-processing, online publications) have provided a great advantage over direct communication: information can be reproduced quickly and conveyed across great distances and to large audiences. Illustrations can supplement the text, but the medium still suffers from most of the shortcomings present in the original embodiment of written communication.

The telegraph allowed nearly-instantaneous transmission of text messages across vast distances. It revolutionised news dissemination and, perhaps more importantly, train dispatching, but was rarely employed in personal communications (rare as compared to, say, telephony in modern society) because of the nature of the devices involved in transmission and the cumbersome nature of the Morse’s code. The developments of transmission multiplexing and teleprinters improved the device, but it was never a practical substitute for direct communication.

Attempting to improve upon telegraph technology, Bell and Gray (competing one against the other) each developed devices that could electrically transmit speech—telephony. (N.B. Bell’s greatest invention is often considered the telephone, but the photophone, which provided a rudimentary implementation of the technology that underlies fibre optics, was probably of greater significance.) The telephone, particularly in recent years with the advent of the mobile versions, has become an important tool in modern communication. It provides many of the advantages of direct communication, but fails to fully capture the the expressiveness offered by facial and bodily gestures. Subsequent creation of phonography (and its derivations—cassette tapes, compact discs, digital video discs, MP3 technology, etc.) and radio audio broadcast eliminated several weaknesses of the original incarnation of telephony, but the missing visual element was not solved until much later.

Television (and motion pictures with associated audio tracks—to a lesser degree) resolved this problem. Finally, most of what could be conveyed during direct communications could be captured and transmitted. The only difficulty was interactivity. Television is an inherently unidirectional means of communication. Further weakening television’s power as a communicative tool is the issue (one that occurs, in various forms, world-wide) of access: a very small percentage of individuals have the access required to broadcast information and it is this problem which disqualifies television as a viable replacement for direct communication.

Teleconferencing conveys all of the benefits of television and provides workable solutions to its shortcomings. People are able to communicate nearly so expressively as in person. They are able to do so bidirectionally, over vast distances, and need not have any sort of special privileges (as opposed to licensing for broadcast of television signals). The barrier to teleconferencing is cost. With currently available technology, average people are economically unable to purchase equipment required for use of such communication. There are internet-based solutions (viz. “web-cams”), but the poor quality of the transmission limits the ability to provide a genuinely useful alternative to direct communication. It is this writer’s contention that, as video capture, transmission, and encoding/decoding technology improves (in capability, availability, and economic feasibility) that video conferencing will be the communication means of the future.

The internet (in its modern form, as opposed to ARPAnet or NSFnet) has revolutionised communication. Electronic mail (“e-mail”) allows people to send messages rapidly to, literally, anywhere across the world; web-sites allow anyone (with access to the internet and a machine from which to host the site) to broadcast whatever they wish to the world; and instant message software allows people to send and receive text messages in near-real-time. E-mail is a useful technology in that it provides the same utility available through type-written letters in the age before electronic means became a real competitor to conventional communication. It has the same weaknesses as that of letters and the added inability to convey much in the way of personality through the physicality and uniqueness of its embodiment (viz. the strengths of hand-written letters, discussed supra). Web-sites are (or, at least, can be), for the most part, accurate digital equivalents of newspapers. Instant messaging is where digital communication has failed to meet the standard.

Instant message technology has sought to compete against telephony. The problems with instant messaging are multifold. First, one can use such software to engage multiple individuals in distinct, private (privacy is nominal, considering the nature of most “modern” instant message packages) conversations. Direct communication—or any previous simulation thereof—has allowed an individual participation in at most one conversation at any time. This was a great strength because it required communicators (i.e. persons engaging in communication) to make a fundamental decision regarding any conversational event—viz. “Is this communication important enough that I am willing to set aside everything else or is it not worth my time?”. Instant messaging has “alleviated” this constraint and allows people to engage in conversations that they find unworthy of other means. Proponents of the technology tout this as one of its advantages (usually phrased as “I can do more at once”, etc.), but it removes the constraint that ensures that the communication occurring is, in

fact, meaningful to both parties involved. Second, it is societally acceptable to converse via an instant messaging product in a manner that is so horribly poor and would be considered entirely unacceptable in any alternate modality of communication. Typing full words is often relegated in favour of semi-equivalent techno-babble (i.e. “u” instead of “you”, “btw” rather than “by the way”, “lol” in place of actually laughing, “ttyl” for “talk to you later”, etc.). Full sentences are not a necessity and correct grammar is, at best, optional. The factors contributing to this phenomenon and its consequences are beyond the scope of this editorial, but it seems apparent that such degradation of conversation cannot have terribly many positive outcomes, if any at all. Third, the facelessness associated with such software makes—for those of us raised on conventional communication, at least—it difficult to associate what is said online with what actually happens. A symptom of this is the reference to anything that does not happen online as “irl” (i.e. “in real life”). The communication that occurs on instant messengers is so mechanical and impersonal that “smiley” character sequences (i.e. “:-)”, “:-/”, “:-P”, etc.) were developed to attempt to inject some minimal sense of emotion into conversation.

The point of this article is as follows: communication is best in person. It always has been and it always will be. However, in a large set of circumstances such direct communication is unavailable and, thus, suitable substitutes must be developed and the trade-offs among these used to determine which ought to be used as the primary form of indirect interpersonal communication. Modernity has been taken too far in the attempts that currently exist to replace conventional indirect communication modalities and the disadvantages of such electronic alternatives (Should the term “e-ternative” be coined? Perhaps it is best that it is not!) have been ignored in a furious attempt to create a world as digitally connected as possible. E-mail and instant messaging software have their purposes: they allow virtually costless and virtually instantaneous communication between any two people. They are useful when a more expressive form of communication is unavailable. They must not, however, be used as substitutes for conventional indirect (telephone, letters) or direct communication when such alternatives are viable, for, otherwise, the expressiveness lost as a result of utilising digital communication will turn people into inhuman automata—individuals only capable of communicating through touch-typed, emotionless pseudo-communication.

In the end, it is smiles, laughs, shouts, whispers, and winks that make us persons and, as machines become more complex and more like humans, we must not allow ourselves to slide further towards becoming any less so, towards becoming indifferent, calculating machines. So, next time the impulse to use instant messaging strikes, consider giving a call or, gasp, meeting to talk over a drink or a cup of coffee like people did “back in the good old days”.