

The Tale of Anode and Cathode

by Mike Mills

Ideally the design of communications equipment should proceed like the natural time-consuming crafting of musical instruments. Melodies and messages both exhibit patterns and rhythms which permit their composition. But the structures of the mind—from which these emerge and which they can easily penetrate—remain mostly undisclosed.

To make matters worse, the designer and user of the new technologies, unlike the music craftman and concert performer, finds it difficult to know when he has built or uses a medium which generates "sour" chords.

And throughout the dilemma, the technology of communication is not following a natural kind of evolution but gathering mass-produced momentum that makes the head reel.

In the past two years, my friends and I have explored a range of video techniques in a range of communication environments. And the effects which they produced sometimes affected me like good music—spontaneous, exciting, soothing to the psyche. But at times, ugh. Like the singing of Jerry Lewis.

Although I cannot detail why certain communication environments resonate with good feeling or good "vibes", certain trends are becoming evident. I would like to discuss a couple of these instances along with some "theory" or speculation as to why they do the way they do.

First, I should say that there is probably no video or "communications" system that is optimum for any particular communication context. Just like old

records, systems can become redundant.

OK. Which systems were interesting? They fall basically into two categories. Those which are concerned with what has been called here "self-processing" but which I prefer to call technologically-induced self-confrontation (video is not the only medium capable of this. Script, photos, mirrors, spoons, water, all kinds of reflections). Those which were used for "interaction" i.e. when more than one person communicates using the medium in a real-time mode. This could involve man-computer-video interactions. Obviously elements of "self-confrontation" of self-interaction must exist simultaneously with bidirectional or two-man interactions.

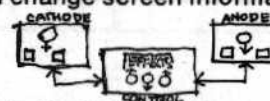
The self-confrontation thing has probably been beaten to death in this and other publications so it is better left untouched. Except to admit that all communication is ultimately self-communication and sets limits on interaction with other people. In fact, interaction between people might more accurately be described as simultaneous tandem self-communication. It's almost like a gymnast doing a handstand claiming he's doing two 'one-handers' at the same time.

Probably one of the most interesting "video interactions" I took part in happened at a well-known university where graduate voyeurs began "gaming" with television (we used to call it television in those days), manipulating a kind of erotic behavior. We had at our disposal a 1950's type studio with special effects generator and other goodies. We recruited one male and one female participant whose images are now part of history. Let's call them Anode and Cathode.

Now, on the morning of the interaction, Anode had little if any knowledge of Cathode—strangers you might say. We placed Anode (the male) in one room and provided him with camera and monitor. For Cathode (a female almost capable of melting the phosphor off our screens) the same environment was provided along with props such as huge wooden boxes to sit on. Through the system, Anode and Cathode could talk to each other.

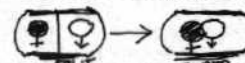
And we, the three graduate voyeurs, bedded down in the control-room with our gadgets and buttons with which we could change screen information on both screens in both rooms simultaneously.

Like so:



The point to keep in mind is that a multi-party communication situation existed with the two participants able to react and respond to (1) their own movements (2) each other's images (3) the happenings in the common space which they shared with the controllers. In other words, if we split the screen which placed both their images in different halves of the screen, they had no choice but to swing with it and modify their behaviour appropriately.

It might be as follows:



Now. Our objective, not particularly honorable, was to use a series of effects (change the screen information) gradually and subjectively so as to urge the couple to control their images in artistic eroticism and/or in the finest porno tradition. In other words, is TV sex possible in real time?

Needless to say, a tricky but interesting business.



Photo: Tom Paskal

I confess that in a given time-grain of about two hours, we as video manipulators brought about a kind of behaviour that would not have been possible divorced from the medium which enhanced it.

If you are a male watching your image on a screen and it superimposed, in real time, with the body of a female, there are not a lot of behaviours you can perform.

Similarly if screens are split so that one half body is male, the other half female, predictable activities follow. And if the image of a mouth is placed adjacent to the image of a full breast.

The mission—video-induced heat—was successful to the point where Anode became so aroused that he broke through his room, left television space, and entered Cathode's chamber for real space, and the "real thing". If it hadn't been for the weakness of (crack!) wood, that is the cube upon which Cathode was lying when Anode mounted her—the experiment would have been complete.

We investigated the ramifications of this equipment assiduously after hours and on weekends.

There are a couple of things to note about the above processes. First, what is interesting to me is that all the control over screen information was vested in the control room. That is, the participants themselves had very little, excuse the expression, 'hands-on' control of the system. They were completely dependent upon us to vary the sequence of effects which set the context for their play. This is unfortunate because it probably resulted in a certain predictability.

Further this lack of 'user' control is a serious weakness if one considers some theoretical notions

of how any organism should react or interact with any environment. It is critical for any kind of "resonance" in a communication that people have active participation in the messages which they are receiving. Another way of saying this is that "involvement" or "good" interactions depend on the organism receiving information (i.e. those messages which make a difference in behaviour) critical to adaptation and survival. More simply, although our experimental system provided the two participants with "feedback" i.e. they could monitor their results, they could not actively explore the range of effects the system could provide for them.

A rule of thumb for self-processing activities, especially in the psychotherapeutic domain, should be to provide the participant viewing his own image some kind of control over his screen-information. This can be done in a number of ways ranging from providing the viewer with a primitive special effects generator which dissects the space in real time into halves, quadrants, etc., to playing around with different kinds of delay-loops which permit him to reflect upon past behaviour while still maintaining a degree of control over it. These loops can be like playing "Simon says" with yourself.

Back to the interaction. This lack of responsiveness, our failure to permit either Anode or Cathode to participate directly in system's messages resulted at one point in Anode's anguished cry, "Oh, oh please superimpose, superimpose."

Moving to a different experimental environment During an interaction which involved two little girls playing with each other's images on the monitors, a tape which contained a sequence of one of

the girl's fathers was placed on her monitor along with her own real-time image over which she had control. Astonishingly, she began interacting with him as if he were really capable of responding. I suppose she thought that he was broadcast from another room. She continued to call to him, to respond to his movements and voice until it reached a point where his non-response was becoming frustrating and upsetting and so the tape was ended.

One striking moment stays in my mind. It is when, unable to get real feedback or control of the screen image of her dad the little girl began miming his movement. When he raised a hand she raised a hand. It was the first and only time I have observed someone enter in good faith into an interaction with a non-human taped image.

The implications of this are fun to toy with. Suppose, just suppose that cable or picturephone become all they are supposed to, that someone has on hand a tape of you when you were interacting... you might be party to an interaction and never know it.

So, what have I learned?

Although it may not be possible to specify a video system to provide good messages like an instrument provides good music, one thing is sure in whatever system is contemplated, in whatever context, from cable systems to self-confrontation—just as playing an instrument is not a passive activity, so the terminal interface must allow the user to actively and continuously control, in real-time, the images and messages being displayed.