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<td>Holaday, Duncan</td>
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"New Media" & Communication Education

By

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Delivered to the AMIC Annual Conference, Jakarta, 1995

DRAFT: NOT FOR PUBLICATION

INTRODUCTION:

The question posed for this session of the 1995 AMIC Conference concerns the relation between changing media of communication and communication education. Specifically, we are asked to consider whether new developments in communication technology and their applications, both as mass media and educational media, have challenged the content of the existing curriculum and the efficacy of current teaching methods. The implication of this phrasing is that education and training in communication -- the schools and departments devoted to training in and study of media -- operate in the service of the media industries (both private and public) and play catch up with technological developments. This seems the most obvious way of describing the circumstances of communication education in the mid-nineties when multi-media computer applications through instantaneous global networks promise a new environment for corporate communications, new modes for education, and, for some, a new path to a utopian future.
But, it is worth remembering that this was not always the case. Twenty-five years ago, the discourse about the relation between education and media was dominated by the view that media operate in the service of education. The question posed at that time was: How can media advance the goals of education, in the classroom and for the masses? (Olson, 1974) Education in health, development, and political awareness was seen as the primary aim, media were viewed as tools to accomplish these ends, as audio-visual aids. Thus, over the past quarter of a century we have witnessed a dramatic shift in perspective from media in the service of education to education in the service of media. Most schools and departments of communication were established and evolved during this period of time, a time when applications of satellite and computer technology forced a change in our perception of media from media-as-tool to media-as-environment, from media as a means to solving problems to media as the problem itself.

The concept of communication became problematized over the past quarter of a century, along with several other concepts that were taken as fundamental in politics, economics and social thought, generally. The concepts of nation, gender and culture, for example, which appeared elemental not long ago, have dissolved under closer scrutiny. And, in this most recent shake up of the terms for discourse in the humanities and social sciences, the concepts of media and communication have emerged as central across a wide range of disciplines, from anthropology to literary criticism. The change of focus in economics from industry to information, in the study of culture from modern to postmodern, and in politics from national to global, all point to communication as the fulcrum of change.
So, if we are to speak of the relation between communication education and changing media of communication, we must acknowledge from the start that we are talking about two bodies in motion. Media have been changing, but so have the assumptions by which we understand media. Communication education has been challenged externally by the new global media, but also internally by new conceptualizations of the process of communication. We are, so to speak, attempting to navigate where the points of reference are themselves not fixed.

This paper attempts to provide reference for the present relation between "new media" and communication education. The approach is to compare the histories of the social context surrounding the principal inventions from which our current media institutions have evolved, on the one hand, and the early development of communication studies, on the other. The contrast between these histories suggests a possible, but by no means obvious point of convergence. The paper closes by looking in detail at an isolated incident of a lesson in media use, and examining some of the arguments used to justify such educational endeavors.

TWO HISTORIES:

Comparison of the histories of communication technology and communication education reveals that while the former was centered around electrical engineering, the latter, communication education, was, from the start, concerned with social engineering. This is not to say that there were no connections and pronouncements by participants in each about the other. There were. The electrical engineers were often moved to make pronouncements about the social impact of their work. Thus, professional engineers became amateur social philosophers, noted for their utopian visions. Likewise, communication
scholars of the past four decades have used technological change to justify the importance of their essentially non-technological endeavors in the social sciences. Pronouncements in both directions have probably only obscured the actual connections between these two histories.

The history of the development of electronic media is itself far from simple and uncontroversial. Take as a baseline the now classic work by Raymond Williams on Television. (1974) He argues against theories that account for the development of technology, and electronic media in particular, as a series of accidental discoveries from which social consequences followed, whether as inevitabilities or matters of choice. Williams sees the rise of the Bourgeoisie in the 18th Century as the moving force behind the series of small technical inventions of the 19th Century which led to television. This technology was inevitable, Williams argues, as the realization of the need for private, home-centered market units -- an economic form which he labels "mobile privatization". From this point of view, the scientists and engineers of the 19th Century were simply putting together a crossword puzzle for which the pieces were already cut -- pieces which remained invisible until they were picked up. The surprise in this notion of discovery is of the sort expressed by the phrase. "Why didn't we see that all along?"

Williams, having made this point convincingly, goes on to argue that 20th Century research on communication effects in the U.S., the hotbed out of which communication studies and communication education arose in the 1940's & 50's, obfuscated the socially determined consequences of communication technology. For Williams, the bottom line is that the configuration of the technology at present serves the arrangement of powers out of which it evolved. Any discourse that obscures this fact promotes false consciousness. Williams' efforts in developing
cultural studies in England may be seen thus as an educational endeavor focused on the demystification of 'mass' communication. But, his sweeping dismissal of the early U.S. research throws out the baby with the bath water. For in the best of the U.S. work by, for example, Kurt Lewin and his associates, there were invaluable insights into the mechanisms of mystification, the anatomy of ideology. The workings of ideology are everywhere evident in the history of electrical engineering, but even at its most incisive, that history does not tell us how ideology works.

Marvin (1988) and Noble (1986) have done much to clarify how the historical process outlined by Williams worked out in reality, among real social actors. By focusing on the community of engineers whose inventions filled anticipated gaps with inevitable discoveries, these scholars reveal the sources of inspiration and the pressures which gave direction to their "progress". Marvin's analysis focuses on the late 19th Century, a time before electronic media were frozen into marketable forms and institutionalized as large commercial organization. She shows how electrical engineers collectively defined themselves as "experts", separating themselves from both amateurs and public, thus forming a closed community which could exercise authority through journals and professional societies. Once established, the authority of this group of western, middle-class males was applied not only to technical decisions, but also to moral ones. Marvin quotes a leading electrical engineer: "...No other man in the world has such stern and unceasing discipline, and so it comes about that no other man is so safe a moral guide as the engineer, with his passion for truth and his faculty for thinking straight." (p.32) Emboldened by this sense of moral superiority, the engineers pronounced upon the shape of things to come, forecasting great progress. But, as Marvin reveals, their predictions tenaciously adhered to the
status quo and to supporting what they saw as their own self interest. When it came to visions of the future, they saw sweeping solutions to a variety of social ills as a consequence of their work. For example, they saw an end to the need for politics in the promise of productive abundance brought about by applications of electrical technology. They claimed, also, that their inventions would eliminate cultural barriers through the universal reception of messages. One visionary predicted that an oscillating current in a huge wire stretched between Greenland and Brazil would send messages throughout the earth. In 1894, the chief engineer of the U.S. post office, William H. Preece, went so far as to say that "... if (we) could oscillate immense stores of electrical energy to and fro in telegraphic order ... it would be possible for us to communicate by telephone with the people of Mars." (p.197)

These inventors were evidently operating from a wealth of unexamined assumptions about society and the orders of difference that exist between social groupings, both terrestrial and extra-terrestrial. Among their most questionable assumptions was the belief that what made sense to these "straight thinkers" must therefore make sense to all living things.

Marvin's analysis makes it clear that there was an ideology at work within the community of engineers. We are left with the impression that while this ideology provided cohesion and a sense of vision, it was, nevertheless, naive, simplistic, and tending toward the ridiculous. By reifying the moral judgments of their own closed community, this ideology inspired the engineers to model their grand technological scheme (to the extent that they could imagine or predict it) upon the image of themselves as members of bourgeois society. Consequently, they put into place a sequence of technological solutions that promoted one-way, home-centered media. Marvin's work thus strengthens Williams thesis by showing how it worked out at a micro-social level.
David Noble's current work on the "Religion of Technology" explores the ideology of the inventors in greater historical depth and with more disturbing implications for our understanding of the present. Noble traces expressions of moral authority by Western scientists from the middle ages to the present. The concept of creation, of a return to a state of Adamic perfection, pervades this literature. His incisive reading reveals that at one point, in the 17th Century this idea of returning to an original state of perfection through science and technology was superceded by the belief that ultimately the scientists would produce a world even better than the world of the lost paradise. The challenge posed by Noble's analysis is to reflect on where we are now, and to see through the ideological assumptions that we now embrace regarding the promise of our new technology. The most disturbing implication of Noble's work is that it is not the ridiculous expressions of ideology, the ones that are easy to identify and criticize, but the simple and sublime ones that must be attended to. According to Noble, it is precisely that which is taken to be self-evident, simple truth which may lead to folly of millennial proportions. Furthermore, it is in the apparently insignificant detail of daily decisions that this grand process unfolds, invisible to the social actors themselves.

Noble has worked out the micro-social implications of this large-scale historical thesis in several other studies. One study focuses on the origins of computer technology at MIT, and on one of the key inventions for modern aviation involving the machine reproduction of parts by computer. The inventor, believing himself to be contributing to war readiness, contracted with MIT for some technical assistance. When his contribution was made, however, he found his invention appropriated by the university and himself marginalized in the process.
Noble has traced this sort of historical irony in several eras of rapid technological development, from the Luddites of the industrial revolution in his book *Progress Without People* (1995) to a recent case concerning workers in the information industries. In the latter case, he describes a protest by displaced telecommunication workers who wore tee-shirts depicting themselves as road kills on the information highway. Thus, engineers and worker alike are seen, time and again, delivering themselves by their own hands into economic and social disaster. Going further than Marvin, Noble demonstrates that the very people who put the technology into place are, thus, displaced by their own work. That is, though the engineers may have been determining their course of action on the basis of a short-term vision of their self-interest, it can be demonstrated that they were working against their own long-term self-interest.

Carey and Quirk, in their essay, "The mythos of the electronic revolution" sum up the argument as follows:

The new glamour firms in electronics, computers, robotics, and genetic engineering... promise everywhere to provide a cornucopia of jobs, markets, and products to rejuvenate ailing economies, to refund declining universities, to reemploy the unemployed... to produce environmental harmony, to eliminate... estrangement between people and their machines... Such a faith, however, contrasts sharply with development in electricity and electronics in recent decades. The manifest consequences of electricity are clearly in opposition to a decentralized, organic, harmonious order. The use of electronic technology has been biased toward the recentralization of power... thermal and atmospheric pollution... and the erosion of regional cultures by television and radio networks..."
Williams, Marvin and Noble would agree with Carey & Quirk that their
"first task is to demythologize the rhetoric of the electronic sublime." (1989:139)
The task of demystification and demythologizing is to make it evident to those
implicated in technological progress that they are not acting in their own best
interest. But, why is it that people can be persuaded time and again to act against
their own self-interest? What, in short, is the mechanism of myth-making? History
which focuses on the inventions and inventors, on the technology per se, is 'natural
history' in the sense that it seeks to reveal patterns in past events. The historians
discussed here are also activists, in the sense that the patterns they reveal require
them to act toward liberation from recurring cycles of negative consequence, and
rectification of historic injustice. Their action is to remove myth, reveal reality, and
agitate for change. But, always in response to history. Implied in this approach to
history is the assumption of catching up with, and responding to the consequences
of technology.

The history of communication studies, as represented in Everett Rogers' A
History of Communication Study: A Biographical Approach, is based on a very
different set of assumptions. Rogers places the beginnings of communication
studies in the 1940's and in the person of Wilbur Schramm. Clearly, Rogers is
talking about the study of communication effects which originated in the U.S., and
which was, as mentioned earlier, summarily dismissed by Raymond Williams.
Rogers dismisses Williams with a single mention in his 500 page tome. He say, "In
recent years another alternative perspective, cultural studies, began in England
with the work of Raymond Williams..." which statement ignores the long-standing,
effort by Williams, and others in the US and Australia as well. This mutual lack of
regard is only symptomatic of the need for synthesis among these schools of thought. Notwithstanding this need, we will proceed by regarding the history of communication studies as that history to which Rogers and Schramm refer.

First, it must be said that whereas the histories written by Noble, Marvin and Williams are incisive, often profound accounts which contain naive, simplistic expressions of ideology by scientists and electrical engineers, the histories written by Rogers and Schramm are often naive and simplistic, at best transparent accounts of profound studies of the workings of ideology by the likes of Lewin, Festinger and Bateson, who were themselves scientists and social engineers. So, for the purpose of this comparison, it is necessary to distinguish the history from its inscription. We will not focus on a critique of the inscription by Rogers, but attempt to look through Rogers' account to the self-inscribed history in the studies themselves -- a truly auto-biographical approach.

The history begins in Washington D.C., in the Offices of Facts and Figures, War Information, and Special Services (predecessor to the CIA) in the 1940's. The war effort brought together a brain trust of sociologists, psychologists, political scientists, anthropologists and social psychologists to work on problems of propaganda, motivation and morale -- Lasswell, Lewin, Hovland, Scramm, Mead, Bateson and Lazarsfeld among them. The central concern was not the enemy, but the American people themselves: how to create and maintain a national will to fight. Rogers writes that "Prior to World War II, most propaganda studies were reformist in nature, seeking to document the power of propaganda messages and to identify policies that could curb such power. But after Harold Lasswell's Wartime Communications Project, ...the researcher became a neutral observer. Eventually the value-laden term propaganda analysis gave way to communication research."
(1994:227) In short, the aim was to look coolly at the process of ideology, not in order to demythologize it, but to learn to create it; not to react to history and reform it, but to act, create and shape history. These were heady times, when the hubris of the social scientist's attempts to improve upon creation were justified by their god and country.

The classic experiment of this era is Lewin's "sweetbreads study". (Maccoby, Newcomb and Hartley, 1958:202) The objective was to encourage the home population to eat glandular meats at a time when the preferred cuts were needed for soldiers abroad. Recipes for heart, thymus, liver and kidney were distributed to housewives, and two contrasting treatments used to convince them to buy and prepare these meats for their families -- a discussion-type treatment and a lecture treatment. The discussion treatment was found to be 10 times more effective. This simple study was a benchmark in the application of Lewin's theory of group dynamics to the problem of changing behavior in actual situations. The challenge was to make people act in opposition to their taste, in opposition to what they perceived as their own self-interest for the sake of a greater good. The key lay in what Lewin referred to as "group cohesion."

The subtleties of the method were later worked out by Lewin's students, most notably Leon Festinger. Festinger observed that in situations of natural disaster, people often act in 'irrational' ways, that is, not in their own self interest. He asked: "Why should people scare themselves?" and generalized this question to studies of the condition which he referred to as "cognitive dissonance". Focusing on situations in which a person's beliefs and actions are in conflict, he learned not only observed such conditions, but to create them. In a classic experiment, he encouraged subjects to lie by paying them various amounts of money, thus
demonstrating that the subject who is paid less experiences greater cognitive dissonance because he finds it harder to justify the act of dishonesty. The point to be made here is that Festinger isolated the moment in which the force of ideology (in this case honesty and survival), which is usually invisible, exerts itself upon apparently insignificant daily decisions. He isolated it, and by manipulation, amplified it, held it under a microscope, so to speak, and learned, to a certain extent, to control it. He was, in other words, playing with the very stuff that history is made of. In light of this, his book-length study, When Prophecy Fails, about the response of members of a cult when the end of the world did not come as predicted, takes on a larger ironic meaning: History can be manipulated, but not by those who wait for it to happen.

It should be clear by now that, at the level of assumptions, the history of communication technology has a very tenuous connection with the beginnings of communication studies. While the former is concerned with observing historical patterns, the latter aims to create and reproduce them. The former aims to demystify ideology, the latter to apply ideology. The former regards as its task to discourage people from acting against their own self interest; the latter to encourage people to act against their own self interest. It should be clear by now, also, that such obvious contradiction cries out for synthesis.

CONCLUSION:

Let me conclude with a sort of parable for the relation between communication education and new media, based on research done here in West Java. In 1979, a group of researchers from the University of Indonesia took a film
camera to villages near Sukabumi, and asked villagers to make films about development from their own point of view. The idea, current at the time, was to promote "horizontal communication" as Rogers dubbed it in his pivotal article, "The decline of the dominant paradigm" (1978). The camera in this context represents new media, because, although it did not originate in Java in the strict sense of appropriate technology, its use in this way constitutes an innovation. To carry this out, it was necessary to teach villagers to use the camera. Student from the university taught filmmaking in one village, then the filmmakers from that first village taught filmmaking in a second village. The camera lesson in the second village was recorded on audio tape and in a sequence of still photographs, which were later analyzed in detail by Holaday and his research assistant Teng Sugilar. (Holaday, 1984) The content of that lesson and the historical context in which it occurred, provides an object lesson which suggests where we might look for synthesis.

Ray Birdwhistell used to talk about observing different shapes of the present, different "here-now's". In the analysis of this lesson there are three relevant shapes of the present. First, there is the lesson itself, which took place in front of the village head's house and lasted for about one hour. By the time the lesson was done, the villagers were ready to use the camera, and succeeded, in the purely technical sense, at making it work. Second, there is the history of this particular village, about one hundred years long and concerning the global reach of colonialism, which may be said to have influenced the way the camera was used in this instance. In brief, the village was the site of tea plantations, first developed under Dutch colonial rule. At this point in 1979, the redevelopment of tea growing with funds from the World Bank was a matter of dispute between two factions in the village. Suffice it to say here, that the faction represented by the village head.
used the lesson as a means of determining how the camera would be used, in the hope of advancing their plan to reestablish plantations in the image of the former colonial glory. A third, crucial order of the present concerns what Birdwhistell has referred to as "micro-cultural events", themselves lasting only seconds and centered within the interactional space around the camera. One such event was described in the report as follows:

...the camera would now be placed in the hands of the village head -- the leader de jure. The circle (of villagers) arranged itself around the camera so that it was attentive, but relaxed and at a respectful distance. As the village head moved through the steps of the demonstration, he was prompted by the schoolmaster (there would be no chance of awkwardness while the camera was in the village head's hands). The schoolmaster said, "Now, the way of holding the camera, holding while shooting." The camera was lifted up by the village head and propped upon a veritable vision of military strength. The grip was all wrong from a technical point of view, but the posture beneath it revealed a more fundamental correctness. There was a flurry of comment, joking, laughter and praise at this display of prowess. The schoolmaster, meanwhile, was trying quietly from behind to correct the technical error before it became glaringly evident.

(Holaday, 1984:313)

The village head, in this brief moment, presented a singularly military image in his army uniform, aiming the camera with both hands held beneath the body of the camera and sighting along the top. There were jokes by those around him, using simile and metaphor to compare shooting with the camera with shooting a weapon. The term *tembak*, "to shoot" was used, and direct reference was made to
the Bren gun. The most revealing comment came from his closest ally in the struggle to reinstate the plantations. His ally said, "How beautiful (using the Sundanese expression wa'as), remember the good old days? It feels like the generation of '45."

The complex symbolic process of invoking the past for present purposes, and the role of wars in that process, has been examined by Lloyd Warner in his book, The Living and the Dead. (1959) Warner offers a theory of the symbolic mechanism by which past significance of events is "displaced" to evoke and express "contemporary beliefs and values about them." Of this process Warner says,

The condensation of the meanings of experience stored in the unconscious of one individual is slight compared to the condensation of social significance in the symbolic equipment of each generation used by collectivities to speak to themselves about their past.

(1959:219)

In a series of micro-cultural events such as this one, the glory of the past was thus invoked to justify and infuse the present with meaning. In the context of the lesson, itself an exercise in technical skill, the technology of the camera was made to fit symbolically into a long, and continuing history of struggles over land, tea, labor and, ultimately, control.

The parallel to communication education, in general, should be clear. It is the micro-cultural events that occupy the space of our classrooms and time of our lectures which is the glue that binds the present to the historical context. As we
grapple with new media, we infuse their use with significance drawn from the histories which impinge upon our present. The most likely history is the very history which produced the technology. But, this is not necessarily the case. The question is: to what extent can we be aware of the mechanisms by which we convey the past into the present? To what extent can we exercise control at the micro-cultural level. Communication studies has, from its beginnings in the 1940's, been a site for testing the extent of precisely this sort of control.

To understand the relation between new media and communication education, we must begin by realizing that the connection between the two is never a necessary one. At one time it may appear that media serves education, at another that education serves media. However, a certain level of awareness is required to detach one from the other at any point in time. Clearly, this is desirable if we wish to use the educational context, not just to fulfill technological imperatives or industrial prerogatives, but as a place to explore new possibilities and realize grander visions of the future.