I hope I will not offend if I say that most students whom I encounter these days have very little interest in ideological questions; that is to say, most American students. As Americans, they are mainly preoccupied with practical questions such as, "What can I do with this stuff after I graduate?" or academic/technical ones such as, "What exactly are the effects of television or the computer or satellites?" But this must not be taken to mean that they do not have an ideology. Everyone has an ideology, if we take the word to mean a more or less coherent picture of how the world works, how it ought to work, and why it doesn't work the way it ought. Students are no exception in their having such a picture, but most of them do not pay it much mind, probably because they believe that their picture is pretty much the same as God's and therefore is both self-evident and uncorrectable. Every so often one finds a student whose ideology follows the design of a different God—commonly a nineteenth-century philosopher named Karl Marx. Such students usually rush to make their ideological position known to everyone, and because they do, they are extremely valuable intellectual resources. Ideological differences are always useful in forcing people to consider not only what their ideologies are but also where their ideologies come from. And such ruminations are bound to improve the quality of one's mind.

This paper is not going to be about the ideologies of students. I began with these remarks because there has recently been increasing interest—even pressure—from students for some discussion of ideological questions as they may have a bearing on our work in media ecology. Their interest has been sparked, I believe, by lively arguments among scholars about two basic questions: first, what are legitimate
forms of research in the social sciences? and second, what are the social purposes of such research? I can speak for all colleagues in saying that we are delighted that students have awakened to these issues and are asking their professors to address them. But I speak only for myself in taking the liberty of trying to answer these questions.

As to the first question, I must tell you at the start that I reject the implications of the phrase "social science"; that is to say, I do not believe psychologists, sociologists, anthropologists, or media ecologists do science. I am fully persuaded that Michael Oakeshott's distinction between processes and practices is definitive in explaining why this is the case. He means by processes those events that occur in nature, such as the orbiting of planets or the melting of ice or the production of chlorophyll in a leaf. Such processes have nothing to do with human intelligence, are governed by immutable laws, and are, so to say, determined by the structure of nature. If one is so inclined, one might even say that processes are the creation of God. By practices, on the other hand, Oakeshott means the creations of people—those events that result from human decisions and actions, such as my writing this paper or the formation of a new government or our conversations or falling in love. These events are a function of human intelligence interacting with environment, and although, to be sure, there is a measure of regularity in human affairs, such affairs are not determined by immutable laws. Now, I have been told by my colleagues that this last statement, namely, that human actions are not determined by immutable and universal laws, cannot be proved, and that to assert it is in the nature of a metaphysical speculation. Fair enough. You may consider it then to be part of my ideology that I believe in free will and in choice; that human beings are fundamentally different from orbiting planets and melting ice; and that while it is obvious we are profoundly influenced by our environment, our ideas and behavior are not irrevocably determined by natural laws, immutable or otherwise. In other words, I believe with Oakeshott that there is an irrevocable difference between a blink and a wink. If it is a blink, we can classify the event as a process, meaning it has physiological causes which can be understood and explained within the context of established postulates and theories. If it is a wink, we must classify it as a practice, filled with personal and to some extent unknowable meanings and, in any case, quite impossible to explain or predict in terms of causal relations.

As I understand the word, science is the quest to find the immutable and universal laws that govern processes, and it does so by making the assumption that there are cause and effect relations among these processes. In this definition, I stand with Newton, and also with the last of the great Newtonians, Albert Einstein. It follows from this that
I believe that the quest to understand human behavior and feeling can in no sense, except the most trivial, be called science. Indeed, it is one of these trivial senses that has led some people to embrace the misleading phrase “social science.” I refer to the fact that scientists, following Galileo’s dictum that the language of nature is written in mathematics, have found that by quantifying nature they can come as close as they dare hope to discovering natural law. But this discovery has led to the pretentious delusion that anyone who counts things is therefore engaged in doing science. A fair analogy to this line of thinking would be to say that a house painter and an artist, each using the medium of paint, must perforce be using it for the same reason. Which I need hardly point out is nonsense.

The scientist uses mathematics to assist in uncovering and describing the structure of nature. At best, the sociologist, to take one example, uses mathematics merely to provide some precision to his ideas. But there is nothing especially scientific in that. All sorts of people count things in order to achieve precision without claiming that they are scientists. Detectives and bail bondsmen count the number of murders committed in a certain city; judges count the number of divorce actions in their jurisdictions; business executives count the amount of money spent in a particular store; and young children like to count their toes and fingers in order not to be vague about how many they have. Information of this kind may sometimes be valuable in helping a person get an idea, or even more so in providing support for an idea. Numbers may even be useful in browbeating people into accepting an idea that otherwise has no merit whatsoever. I have, myself, harbored several such worthless ideas, one of which has recently been supplied with some impressive numbers which will not only permit me to continue to believe this nonsense, but may help me to persuade others to believe it. I refer to my theory that living in California, Florida, and other warm climates tends to shrivel people’s brains and makes them dumber than people who live in colder climates, such as New York, Pennsylvania, Illinois, and Iowa. Since there is no idea so bad that a social scientist will not find support for it, I was not surprised to come across a study by two doctoral students at Texas Technical University who found that the ten states with the highest average SAT scores all had cold winters. Indeed, every state with an average of 510 or higher on both the verbal and quantitative parts of the SAT had an average high temperature in January of less than forty-two degrees Fahrenheit. At the other end, five of the ten states with the lowest SAT scores were warm-weather states. Moreover, temperature had a significant relationship to SAT scores even when the researchers took into account such factors as per-pupil expenditures on schooling. All of which proves only that it is a serious mistake to
define the act of science by whether or not numbers are used to calculate something.

And just as counting things does not a scientist make, neither does observing things, which I mention here because it is sometimes said that if one is empirical, one is scientific. To be empirical means to look at things before drawing conclusions. Everyone, therefore, is an empiricist, with the possible exception of paranoid schizophrenics. To be empirical also means to offer evidence that others can see as clearly as you. You may, for example, draw the conclusion that I like to write articles, offering as evidence the one here before you and others that I have written over the years. You may also offer as evidence that I am stating right here that I like to write articles. Such evidence may be said to be empirical and your conclusion, empirically-based, but you are not therefore acting as a scientist. You are acting as a rational person, to which many people who are not scientists may make a just claim.

Recently, I had a conversation with a young communications professor from the University of Wisconsin who repeatedly claimed she was a member of the community of social scientists. The basis of her claim was that she had conducted what is called a correlational study of TV viewing and aggressive behavior in children. Her conclusion was that some children in Madison, Wisconsin, who watch lots of violent programs are also apt to act more aggressively than some of the children who watch fewer violent programs. She could not say—and had no hope of saying—if they were aggressive because they watched TV violence, or if they watched TV violence because they were aggressive. She could also not say—and had no aspiration to say—why it was that some children who watched lots of violent programs did not act aggressively, or why some of those who didn’t watch lots of violent programs did act aggressively. Moreover, she told me that within the past five years there have been more than 2500 such studies conducted in American universities, with the result that there is no agreement on very much except that watching lots of violent TV programs may be a contributing factor in making some children act aggressively, but that in any case it is not entirely clear what constitutes aggressive behavior. In other words, after 2500 studies, we have a statement that is somewhat less meaningful than my saying that Adolph Hitler’s speeches may have been a contributing factor in the growth of anti-Semitism in Germany.

Confronted by such a desiccated view of science, I naturally asked what her definition of science was. She replied that it required one to be empirical, to measure things, to make one’s methods and conclusions public, and to test one’s assertions. Because this definition would not distinguish the act of science from the normal working of
a sane mind engaged in problem solving, it did not take me long to get her to acknowledge that such actions, while necessary in science, were hardly sufficient, and I was able to reduce her to saying, "Well, what difference does it make what you call it?" Now, this is not normally the way one ought to treat a young professor, but I did so because I believe it is important to distinguish science from non-science.

There are three reasons why. The first is that it is always worthwhile to insist that people use the right words to describe what they are doing. The second is that many people who misuse the word do so in the hope that the prestige of science will attach to their work. Americans, as you know, are peculiarly afflicted with science-adoration, which is why we must endure such abominations as Christian Science, Creation Science, Scientology, Policy Science, Decision Science, and Administrative Science, as well as Behavioral and Social Science. And the third reason is that when the study of human conduct is classified as science, there is a tendency to limit the kinds of inquiries that may be made. The counters and empiricists—that is, the pseudo-scientists—are apt to deprive others of the right to proceed in alternative ways—for example, by denying them tenure. The result is, of course, that they impoverish the field and make it difficult for people with ideas to become part of it.

Now before proceeding to say what I think sociology, psychology, media ecology, and the rest are, I want to give one more example of social science to make clear why it is, in fact, not science at all. I will choose a piece of work that is greatly admired as social science, at least from a technical if not an ethical point of view. I refer to the experiment—so-called—supervised by Stanley Milgram, the account of which was published under the title Obedience to Authority. This is the notorious study in which Milgram tried to entice people to give electric shocks to innocent victims who, in fact, were conspirators in the experiment and did not actually receive the shocks. Nonetheless, most of Milgram's subjects believed that the victims were receiving the shocks, and many of them, under pressure, gave shocks that, were they real, might have killed the victim. Milgram took great care in designing the environment in which all this took place, and his book is filled with statistics which indicate how many did or did not do what the experimenters told them to do. As I recall, somewhere in the neighborhood of 65% of his subjects were rather more compliant than would have been good for the health of their victims. Milgram draws the following conclusion from his research: In the face of what they construe to be legitimate authority, most people will do what they are told. Or, to put it another way, the social context in which people find themselves will be a controlling factor in how they behave. Now, in the first place, this conclusion is merely a com-
monplace of human experience, known to be largely so by everyone from Maimonedes to my Aunt Molly. I do, however, exempt from the word “everyone” American psychiatrists. It appears that before he conducted his experiment Milgram sent to a large group of psychiatrists a questionnaire in which he solicited their opinion as to how many subjects are likely to continue giving electric shocks in such circumstances. The psychiatrists thought the number would be very much smaller than it actually was, basing their estimates on their knowledge of human behavior. Which explains to my complete satisfaction why their estimates were so wrong.

In any case, in mentioning the commonplace nature of Milgram’s conclusion I do not mean to imply that real scientists never produce commonplaces, but only that it is rare and never a cause for excitement. On the other hand, such conclusions are always a characteristic of academic pseudo-science.

In the second place, Milgram’s study is not even empirical in any strict sense, since it is not based on observations of people in what may be called naturalistic situations. I assume that no one – not even Milgram – is especially interested in how people behave in a laboratory at Yale University, but in how they behave in situations where their behavior makes a difference in the fabric of their lives. And the fact is that any conclusions to be drawn from this study must specify that they apply only to people in laboratories under the conditions arranged by Milgram. But even if we assume that there is a correspondence between laboratory behavior and more life-like situations, no predictions can be made about what life-like situations these may be. Neither can any serious claim be made that there is a cause and effect relationship between the acceptance of legitimate authority and doing what you are told. In fact, Milgram himself shows us that there is not, since 35% of his subjects told him to bug off. Moreover, Milgram has no idea whatsoever as to why some people do and some people do not tell him to bug off. Even further, I feel quite sure that if each of Milgram’s subjects had been required to read Hannah Arendt’s *Eichmann in Jerusalem* before showing up at the laboratory, Milgram’s numbers would have been quite different. But let us suppose that I am wrong about that, and let us further suppose that Milgram had found that 100% of his subjects did what they were told, with or without Hannah Arendt. And now let us suppose that I tell you a story of a group of people who in some real situation refused to comply with the orders of a legitimate authority. Would you say to me that this cannot be so, because Milgram’s study proves otherwise? Or would you say that this overturns Milgram’s work? I think you would say neither, because Milgram’s experiment does not confirm or falsify any theory that might be said to be a law of human nature. His study,
which incidentally I find both fascinating and terrifying, is not science. It is something else entirely.

Which leads me to say, at last, what sort of work I think he is engaged in — indeed what sort of work all of those who study human behavior and situations are engaged in. I will start by making reference to a famous correspondence between Sigmund Freud and Albert Einstein. Freud once sent a copy of one of his books to Einstein, inviting him to make an evaluation of it. Einstein replied that he thought the book exemplary but was not qualified to judge its scientific merit. To which Freud replied somewhat testily that if Einstein could say nothing of its scientific merit, he could not imagine how the book could be judged exemplary. It is science or it is nothing. Well, of course, Freud was wrong. His work is exemplary — indeed, monumental — but no one except some American psychiatrists believes today that Freud was doing science, any more than educated people believe that Marx was doing science, or Max Weber or Lewis Mumford or Bruno Bettelheim or Carl Jung or Margaret Mead or Arnold Toynbee. What these people were doing — and Stanley Milgram is doing — is telling anecdotes about human behavior. Their work is a form of story-telling, not unlike conventional imaginative literature although different from it in several important ways.

I call the research of these people story-telling because the word implies that its author has given a unique interpretation to a set of human events, that he has supported his interpretation by providing examples in a variety of forms, and that his interpretation cannot be proved or disproved but draws its appeal from the power of its language, the depth of its explanations, the relevance of its examples, and the credibility of its theme. And that all of this has an identifiable moral purpose. The words “true” and “false” do not apply here in the sense that they are used in mathematics or science. For there is nothing universally and irrevocably true or false about these interpretations. There are no critical tests to confirm or falsify them. There are no postulates in which they are embedded. They are bound by time, by situation, and above all by the cultural prejudices of the researcher. Quite like a piece of fiction.

A novelist — for example, D.H. Lawrence — tells a story about the sexual life of a woman — Lady Chatterly — and from it we may learn things about the secrets of some people, and wonder if Lady Chatterly’s secrets are not more common than we had thought. Lawrence did not claim to be a scientist, but he looked carefully and deeply at the people he knew and concluded that there is more hypocrisy in heaven and earth than is dreamt of in some of our philosophies. Now, the sociologist Alfred Kinsey was also interested in the sexual lives of women, and so he and his assistants interviewed thousands
of them in an effort to find out what they believed their sexual conduct was like. Each woman told her story, although it was a story carefully structured by Kinsey's questions. Some of them told all they were permitted to tell, some only a little, and some probably lied. But when they are all put together, there emerges a collective story of a certain time and place. It is a story more abstract than D.H. Lawrence's, largely told in the language of statistics and, of course, without much psychological insight. But it is a story nonetheless. One might call it a tribal tale of one thousand and one nights, told by a thousand and one women, and its theme is not much different from Lawrence's, namely, that the overt sexual life of some women is a lot stranger and more active than some other stories, particularly Freud's, have led us to believe.

Now, I do not say that there is no difference between Lawrence and Kinsey. Lawrence unfolds his story in a word structure called a narrative. Kinsey's word structure is called exposition. These forms are certainly different, although not so much as you might suppose. I remind you here of the remark made about the brothers Henry and William James: that Henry was the novelist who wrote like a psychologist, and William, the psychologist who wrote like a novelist. Certainly, in my meaning of the word "story," exposition is as capable of unfolding one as is a narrative. Of course, Lawrence's story is controlled entirely by the limits of his own imagination. And he is not obliged to consult any social facts other than those he believed he knew. Lawrence's story is pure personal perception. And that is why we call it fiction. Kinsey's story comes from the mouths of others, and he is limited by what they said when he asked his questions. Kinsey's story, therefore, we may call a documentary. But like all stories, it is infused with moral prejudice and sociological theory. It is Kinsey who makes up the questions, and chooses who will be interviewed, and the circumstances of the interview, and how such answers as are generated will be interpreted. All of this gives shape and point to his story. Indeed, we may assume that Kinsey, like Lawrence, knew from the outset what would be the theme of his story. Otherwise, he probably wouldn't have cared to tell it.

It must also be observed that both the novelist and the social researcher construct their stories by the use of archetypes and metaphors. The novelist Cervantes, for example, gave us the enduring archetype of the incurable dreamer and idealist in Don Quixote. The social historian Marx gave us the archetype of the ruthless and fat, though nameless, capitalist. Flaubert gave us the repressed bourgeoise romantic in Emma Bovary. And Margaret Mead gave us the carefree, guiltless Samoan adolescent. Kafka gave us the alienated urbanite driven to self-loathing. And Max Weber gave us hard-working
men driven by a mythology he called the Protestant Ethic. Dostoevsky gave us the egomaniac redeemed by love and religious fervor. And B.F. Skinner gives us the automaton redeemed by a benign technology.

I think it justifiable to say that in the nineteenth century, novelists provided us with most of the powerful metaphors and images of our culture. In the twentieth century, such metaphors and images have largely come from the pens of social historians and researchers. Think of John Dewey, William James, Erik Erikson, Alfred Kinsey, Thorstein Veblen, Margaret Mead, Lewis Mumford, B.F. Skinner, Carl Rogers, Marshall McLuhan, Noam Chomsky, even Stanley Milgram, and you must acknowledge that our ideas of what we are like and what kind of country we live in come from their stories to a far greater extent than from the stories of our most renowned fiction writers. I do not mean to say, incidentally, that the metaphors of social research are created in the same way as those of novels and plays. The writer of fiction creates metaphors by an elaborate and concrete detailing of the actions and feelings of particular human beings. Sociology is background; individual psychology is the focus. The researcher tends to do it the other way around. His focus is on a wider field, and the individual life is seen in silhouette, by inference and suggestion. Also, the novelists proceed by showing. The researchers, using abstract social facts, proceed by reason, by logic, by argument. That is why fiction is apt to be more entertaining. Whereas Oscar Wilde or Evelyn Waugh shows us the idle and conspicuously consuming rich, Thorstein Veblen argues their way into existence. In the character of Sammy Glick, Budd Shulberg showed us the narcissist whose origins Christopher Lasch has recently tried to explain through sociological analysis. So there are differences among storytellers, and most of the time our fiction writers are more pleasurable to read. But the stories told by our social researchers are at least as compelling and, in our times, apparently more credible.

Now, what I am driving at is this: Once we rid ourselves of the false notion that we are scientists, and accept the idea that we are among our culture’s most important tellers of psychological and social tales, the answers to the two questions raised at the beginning are obvious. As to what are legitimate forms of research, we may answer by permitting ourselves the greatest possible latitude. Historical speculation, philosophical argument, literary criticism, case histories, biography, semantic and semiotic analysis, ethnography—all these and more ought to be admissible as ways of telling our stories, and the less concern about method, the better. One becomes fastidious about method only when one has no story to tell. The best people in our field have, with few exceptions, been almost indifferent to the question of method. Who can characterize Harold Innis’ method? Or
Susanne Langer's? Or Eric Havelock’s? Or McLuhan's? Or Mumford's? Or Jacques Ellul's? They used whatever social or historical theories and facts seemed relevant; they put forward their arguments by using the instruments of reason, logic, intuition, conjecture. Even Erving Goffman, who seems more technical than most, hasn't much of a method; what he has is a metaphor: life is a stage and we are all players on it. Of course, we can also count things, if we wish, and do correlational studies. But if we do, we ought to make it clear what social theory is serving as the frame for our story. George Gerbner does such studies, but only because he wants to tell a story of a people slowly, perhaps inexorably, being overcome by feelings of powerlessness. Stanley Milgram does such studies because he wants to demonstrate that a commonplace of human experience—what we know about ourselves—can be more terrifying than what we don’t know. Alfred Kinsey did such studies because he believed that official morality is, and probably always has been, rubbish.

And so, the answer to the first question is that by resisting the attractions of pseudo-science, and embracing the role of creators and narrators of social myth, we can enrich our field of study immeasurably. Of course, this cannot be done without risk. It means that graduate students, assistant professors, and grown-ups will generate piles of junk—unconvincing stories without credible documentation, sound logic, or persuasive argument. After all, how many Lewis Mumfords or Walter Ongs or Lynn Whites or Jacques Elluls are there? But then, how many Franz Kafka's, D.H. Lawrences, or James Joyce's are there? It is a risk that must be borne. The alternative is to remain a shrivelled pseudo-science, useless for everything except the assembly-line production of Ph.D.s.

And as for the second question—What is the purpose of such research?—the answer is not, obviously, to contribute to our field, but to contribute to human understanding and decency. For the most part, novelists do not write to enrich the field of novel-writing. The good ones write because they are angry or curious or cynical or enchanted. The Scarlet Letter was not written by a man who wanted to improve the art of the novel, but by a man who wanted to improve the art of living together. Similarly, The Myth of the Machine, Understanding Media, The Technological Society, Computer Power and Human Reason, Stigma, Anger, Public Opinion, and, if you will pardon an attempt to gilt myself by association, The Disappearance of Childhood—these books were written by men and women who were not concerned to improve scholarship but to improve social life. Thus, the purpose of doing this kind of work is essentially didactic and moralistic. These men and women tell their stories for the same reason as the Buddha, Confucius, Hillel, and Jesus told their stories.
To put it plainly, all of the so-called social sciences are merely subdivisions of moral theology. It is true, of course, that social researchers rarely base their claims to knowledge on the indisputability of sacred texts, and even less so on revelation. But you must not be dazzled or deluded by differences in method between preachers and scholars. Without meaning to be blasphemous, may I say that Jesus was as keen a sociologist as Veblen. Indeed, Jesus’s remark about rich men, camels, and the eye of a needle is as good a summary of Veblen’s *Theory of the Leisure Class* as it is possible to make. As social researchers, Jesus and Veblen differed only in that Veblen was more garrulous. Like moral theology, social research never discovers anything. It only rediscovers what people once were told and need to be told again. If, indeed, the price of civilization is repressed sexuality, it was not Sigmund Freud who discovered it. If the consciousness of people is formed by their material circumstances, it was not Marx who discovered it. If the medium is the message, it was not McLuhan who discovered it.

And so the answer to the second question is that the purpose of social research is to rediscover the truths of social life; to comment on and criticize the moral behavior of people; and finally, to put forward metaphors, images, and ideas that can help people live with some measure of understanding and dignity. Specifically, the purpose of media ecology is to tell stories about the consequences of technology; to tell how symbolic environments create contexts which may change the way we think or organize our social life, or make us better or worse, or smarter or dumber, or freer or more enslaved. I feel sure you will pardon a touch of bias if I say, in closing, that the stories media ecologists have to tell, and have yet to tell, are rather more important than those of other academic story-tellers—the reason being that the power of communication technology to give shape to people’s lives is not a matter that comes easily to the forefront of people’s consciousness. At the same time, we clearly live in an age in which our lives—whether we like it or not—have been submitted to the demanding sovereignty of new media. And so we are obliged, in the interest of a humane survival, to tell tales about what sort of paradise may be gained, and what sort lost. We will not have been the first to tell such tales. But unless our stories ring true, we may be the last.