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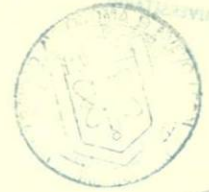
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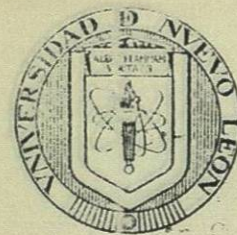
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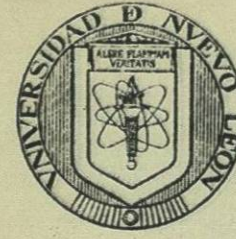
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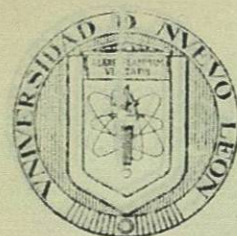
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WRITINGS on values and technology seem to me to fall into several categories, all of which I want to avoid if only because each category is already well visited. I have forced four such categories into existence and have added to each a label. These are: the Luddite, the technocratic, the apocalyptic, and the cautionary moral sermon. After a brief description of each of these, I would like to describe my own perspective on the problem, which I will call that of the curious, hopeful, and sometimes astonished observer.

The Luddite
The basic premise of writers in this category is that technological development is inevitably and fundamentally dehumanizing and corrupting. In a technologically developed society, man is forced to live in a way that is both unwholesome and spiritually depraved. A common specter is that of short-sighted little men, usually engineers and professional businessmen, who have taken over spaceship earth and are mindlessly extinguishing all human values. There is no hope. Charles Reich foresees a spontaneous emergence of a new post-technological mentality which will reject the technological apparatus. Theodore Roszak sees hope in the development of an anti-technological counterculture.

The Technocrat
These [11] assert that technology is our strength and that if we want to survive we must play from strength. Technology is on the march and man must adapt to it. Science is regarded as an objective method of determining the truth. But the ultimate of outmoded technology is the

Introduction
This perspective has much in common with that of the Luddites. Both hold that man has created the means of his own destruction through the exercise of his rational powers. However, the apocalyptic vision does not share the belief that technological development can be stopped or that man will spontaneously reject the inhuman world he has created and return to pastoral innocence. Scientists, who are still engaged in the pursuit of saving truths, are not likely to act as prophets of despair—it is incompatible with the requirements of their role. Instead, this view gains clearest expression from critics, such as Leslie Fiedler and Jhab Hassan, novelists and filmmakers, such as Kurt Vonnegut and Stanley Kubrick. Other writers, such as Paul Ehrlich and Alan Toffler, present visions of the future which seem almost as hopeless, though they may continue to express the belief that there is a way out. The one strand of hope presented in this perspective is that perhaps the apocalypse will act as a massive cultural electro-shock treatment. Possibly, when the dust settles, the remainder of mankind will live a long while before creating another massive disaster.

The Cautionary Moral Sermon
The most common practitioners of this art form are scientists themselves, who for one reason or another look up from their laboratory benches and are alarmed by what they see. The list of practitioners reads like an honor roll of science—Rene Dubos, Jacques Monod, George Wald, Linus Pauling, Garret Hardin, John Platt, J. Bronowski. The common theme is that scientists have been naive and unwittingly irresponsible in the pursuit of their calling. They have been on the glimmering path of truth and have trusted to politicians to run the world and to the social scientists to keep score and offer practical advice. Now it is clear that scientists have misplaced their trust. They must reexamine their human values and must play a crucial role in creation of a new and more benevolent world order. With Whitehead [12], scientists must recognize that "Man-kind has raised the edifice of science, because they have judged it worthwhile." Science is value-laden in origin and

Received for publication April 23, 1977.
This paper is with the Department of Psychology, Wesleyan University, Middletown, Conn. 06457.