The Technological Society: A Dialogue

1. ‘The Biology of Technique’

Jacques Ellul


However, I find myself in disagreement with several of his points, as for example when he asks whether I refer to a mythical past. The fact is I do not idealize the past, for I am all too well aware of its defects. Neither do I compare present-day society with a past society which might have been better. I simply address myself to today’s problems without reference to the problems of any former society. Or again, Mr. Theobald interprets me as saying that technique destroys human society. In fact, I am perfectly well able to envisage a technological society which is not inhuman per se, but inhuman only in terms of what man has it in his power to become and the freedom he might achieve. But since these brief comments allow little room for extensive discussion, I shall confine myself to two points.

The main disagreement between Mr. Theobald and me concerns the root causes underlying technical development. Mr. Theobald believes that the present pattern of technical progress is due to military and economic rivalry among nations and to the race between production and demand, hence to causes not inherently technical.

I, on the contrary, believe that because of its proliferation, the technical phenomenon has assumed an independent character quite apart from economic considerations, and that it develops according to its own intrinsic laws. Technique has become man’s new milieu, replacing his former natural milieu. And just as man’s natural environment obeys its own physical, chemical and other laws, our artificial, technical environment is now so constituted that it also has its own laws of organization, development and reproduction.

While I was one of the first to try to describe these characteristics of technology, the concept is today generally admitted by many eminent sociologists. Thus, in his latest work, one of the greatest of living anthropologists, M. Leroi-Gourhan, writes: “Analysis of techniques shows that in the course of time they behave in the same manner as living species, apparently possessing their own evolutionary force, so that they tend to escape from man’s control. . . . We would seem therefore to be dealing with a veritable biology of technique.” This is exactly what I was trying to convey. Technique evolves apart from man’s intentions, following its own intrinsic causal processes, independent of external forces or human aims.

Obviously I cannot recapitulate here an exposition which occupies the greater portion of my book. But this view of technique leads me to think that modifications in economic structure, a détente in international relations, and improved cooperation among nations will cause practically no change in the technical phenomenon. I do not believe that the mere fact of being able to exploit largely all our resources gives man any particular freedom of choice regarding technique itself. These choices in reality are determined by factors within the

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technical apparatus, and this determinism becomes more rigorous as it grows ever more complex. This is not equivalent according to my way of thinking — with socialization in the traditional sense of the term, as Mr. Theobald seems to believe. The result will be a greater integration of the individual into a society rigorously organized, not on an ideological but on a technical basis, using technical means. In this society, the individual's apparent wider possibilities for action and self-expression will be basically illusory.

Technique would not be modified by changing the external factors which presently affect it. These external factors give technical society its secondary characteristics, which are sometimes excessive. This is what I wanted to show when I spoke of the concentration camp, but I also said in the last chapter that this is an accidental result which we can expect to disappear. However, while we can expect the secondary characteristics to disappear, this will not result in any fundamental change in the nature of the problem.

My second point bears on Mr. Theobald's correct view of my book as a description of what has happened because man has remained largely unconscious of the many implications of technique and has sought only to profit from it. Extrapolation, my book is also a warning of what may happen if man does not come to understand what is happening and makes no attempt to control the situation. I never denied that technique has brought some elements of well-being and happiness. If I failed to discuss this, it is because it seemed to me so obvious and so well known as scarcely to bear repeating that, thanks to technique, man is better fed and enjoys many improvements in his lot.

On the other hand, I never intended to describe any inexorable process or inevitable doom. I simply declared that because man does not seem to realize the extent of the problem because our freedom of choice and of judgment is being reduced, because our technical milieu is becoming more complex, the evolution that I described seems increasingly likely. It is therefore only the ever-increasing probability of this development that I sought to emphasize.

When it is argued that man can act effectively when confronted with this situation and can find means to change the course of evolution in technical society, I would like to believe it. But the problem must be posed in concrete terms. Of whom are we speaking when we say "man"? I myself do not believe in the existence of "man" in the abstract. Whom, then? The intellectuals? The technicians? The politicians? Exact analysis shows to what degree they are powerless since it is they who are most involved in this evolution. Nor could any individual be effective because his personal decisions could not possibly influence the source of society. Philosophers and artists are completely eliminated from the reckoning by the mere fact of their being non-technical men. (All that obviously calls for lengthy proof!) Thus, what is needed is a kind of psychological and spiritual revolution affecting a considerable group of people. But at present, it seems to me that this has not yet begun and that it is not scientifically predictable.

The worst of illusions, however, would be to believe that, one way or another, the problem will resolve itself. The Marxists live in a utopian dream which claims that all technical difficulties will automatically be resolved by the transition to a Communist society. However, it is equally illusory to think that any historical or economic evolution will automatically call forth a positive response to its challenges; or yet to believe—as many do—that technical progress itself will resolve the problems caused by technique. In fact, only the more obvious, fragmented problems will be so resolved. For instance, while automation frees men from the misery of work on the assembly line, even more perplexing questions arise during the process. For technique spawns problems ever more vast and complex than those it resolves.

The principal feature of my work was an attempt to portray technique as a global phenomenon—hence the imperfections of my book! But I am sure that it is only by becoming aware of this phenomenon that men can become convinced of the necessity of finding a global answer to the challenge. Invariably it is when man finds himself in the presence of radical danger that he learns to react and to devise a response. So long as man tells himself into thinking his perils imaginary, that ready-made solutions exist, or that others will devise a remedy, he will do nothing but wait. I am still convinced, however, that if we can be sufficiently awakened to the real gravity of the situation, man has within himself the necessary resources to discover, by some means unforeseeable at present, the path to a new freedom.

2. 'The Path to a New Freedom'
Robert Theobald

The object of this brief reply is not to break new ground in my debate with Ellul but rather to clarify our areas of agreement and disagreement.

First, I agree with Ellul that, in large part, "the technical phenomenon has assumed an independent character quite apart from economic considerations, and that it develops according to its own intrinsic laws. Technique has become man's new milieu, replacing his former natural milieu."

Having accepted this reality, my review attempted to discover that the reasons why man was falling to control technique and what initial steps would be required to allow us to turn technique to man's benefit. It was in this context that I stated that major change in the socio-economic system would be required if we were to have any chance of controlling technique. I argued then, and still believe, that the existing necessity to keep demand and supply in balance, the existing necessity that each country earn enough from its exports to pay for its imports, and the existing necessity for each country to attempt to be in a position to deter potential attackers makes it impossible to control technique for man's benefit. Indeed, I would go further and claim that the existence of these constraints makes it almost impossible for society even to perceive the long-run implications of technique.

Thus, I claim that major changes in the socio-economic system are prerequisites to control of technique for man's benefit. It should be noted that I do not infer by this that technique does not have certain inherent requirements and characteristics. I

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am only arguing that many types of socio-economic systems are compatible with the technological environment which is so rapidly growing up around us, and that man will determine — whether by conscious choice or blind default — the type of socio-economic system which develops.

I find Ellul's position on this issue ambiguous; he seems at many points in the book and in his reply to deny man's power to influence the technological environment. Indeed, at times, he appears to believe in a rather extreme technological determinism. Yet in spite of this, at the end of his reply, he quite clearly states that man can find "the path to a new freedom."

While Ellul and I may disagree on this point, we are in complete agreement that "man does not seem to realize the extent of the problem" and that until he does so, technique — or technological determinism — will guide our future. However, Ellul is far more negative than I am about the possibility of perceiving the gravity of the threat and acting effectively to counter it.

Ellul dismisses the intellectuals, the technicians, the politicians, the philosophers and the artists as sources of understanding and leadership. Ellul also dismisses the individual on the grounds that "one man's personal decision could not influence the course of society."

This is surely a total misunderstanding of the function and potential of individual leadership. As Toynbee and many others have pointed out, society has always been changed by the wisdom and courage of a very few. The need for leadership has never been greater than it is today, and the potential for effective leadership has also never been greater.

Many social scientists who are concerned with the problems of achieving social change would deny this statement, claiming that society has never been so hard to change, that the individual has never had so little power. These social scientists ignore two realities: first, that many of the beliefs of interest groups are no longer dogmas but are instead open to change on the basis of rational argument; second, that the new means of communication are immensely powerful if we would learn to use them effectively.

Change can only be achieved on the basis of individual leadership which will then create the large-scale movement which Ellul correctly sees as essential for major change. Each of us has the individual responsibility to do what he can to create this large-scale movement.

Surely one of the most remarkable trends of the past two or three years in the United States has been the tentative commencement of such a large-scale movement which challenges the fundamentals of the present socio-economic system. A number of people in all interest groups and all disciplines have begun to perceive that major change must be brought about if we are to deal with the impact of technological change. The basic problem now facing this movement is to bring together this minority of concerned individuals in a way which will allow both analysis and appropriate action.

We cannot perceive, as yet, where this movement will take us if it develops. We can be sure, however, that it will necessarily have to face up to the issues which Ellul has made obvious in The Technological Society. This, surely, is the measure of his achievement.

ART

Max Kozloff

The major problem that has confronted American artists of the 20th century has been to effect some approachement between their consciousness of the life around them and the imperatives of modern painting, which have been increasingly harder to overlook, however much they are not a native outgrowth. In particular, the tensions elicited by abstraction, the great contemporary pictorial idea, have been extremely difficult to handle by a tradition of fact or fancy which was never really disciplined by the conceptual intricacies of art. Added to this were cultural conditions, isolationism, the depression, the anti-intellectual spirit of American society, which threw up a whole network of resistances to the development of an independent local abstract art. (The Soviet repression of Constructivism was a similar, if far more repressive, force.) And finally, there were the strains of invention and continuity inherent in abstraction itself. If European art is studded with pioneers who could not bear these conflicts, America presents a plethora of dropouts — not one of its early modernists held up longer than a brief instant against the figurative and parochial — although not, for all that, debilitating — flavor of their environment. One result was that defensive he-man psychology, that poorly disguised cult of masculinity, which has pervaded our art until only very recently. Another was the belligerence and defiance of philistia which so often took the place of self-criticism.

The Armory Show (1913) caught most artistic opinion off-balance. And in Paris during the twenties, the eager Americans arrived only to find the avant-garde in a serious crisis. But when European art physically emigrated here during World War II, it finally accomplished what Gleizes, Picabia and Duchamp had failed to do during World War I; to transplant the modern perspective once and for all into this soil. Thereafter