

Confronting the Technological Society

Samuel Matlack

In March 1962, a group of some two dozen experts met in Santa Barbara, California for a week-long conference sponsored by the editors of the Encyclopædia Britannica. The topic of discussion was "the nature of technology and its significance for human affairs." A partial record of the conference—including papers written for it, reactions to those papers, and reports of the discussions—was published later that year in a special issue of the journal *Technology and Culture*, in time for the Cuban missile crisis to confirm the topic's urgency. In the foreword to the issue, the encyclopedia's publisher (and former U.S. Senator) William Benton wrote that "no one can take the measure of this time without taking into account the social, cultural, economic, and political impact of technology" and that the accelerating speed of technological change "carries with it promise of reward and threat of danger, each in unprecedented array." And in the introduction, the conference papers' editor said about modern technology that "if we are to avoid the disasters it lays open to us and take advantage of the opportunities it presents, we must put it in the control of reason."

But one contributor was highly skeptical of the proposition that rational control of technology was still possible. The French historian, sociologist, and lay theologian Jacques Ellul was not present at the meeting but submitted a lengthy essay, the claims of which became a subject of dispute at the conference. "Technique," he argued—broadly conceived to include not merely machines and other technical devices but the whole complex of rationally ordered methods for making any human activity more efficient—has outgrown human control, even if we are able to govern individual technologies. This technical complex has taken on a life of its own, threatening human freedom and responsibility and suppressing the necessary conditions under which a solution to this predicament seems possible.

Reactions at the conference to this disturbing argument varied. One respondent, the Jesuit priest and English professor Walter Ong, who would later become best known for his work on orality and literacy, agreed with much of Ellul's essay but said that "he makes technology a

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Frankenstein's monster." Gerard Piel, editor of *Scientific American*, offered little by way of criticism, except to suggest that Ellul's notion of technique was too broad. But Robert Watson-Watt, Scottish pioneer of radar, in a colorful essay celebrating science and technology, quipped that Ellul's scholarly pessimism was a symptom of having been "brought up mainly on a diet of printed paper," in contrast to the optimistic technologist like himself, who had been "nurtured on wood shavings, iron and brass filings, propulsive gases, and other base mechanic offal."

Ellul's provocative essay was a summary and explication of the main arguments he had put forth in *La Technique*, which has since become his most widely known book, published sixty years ago in French (1954) and fifty years ago in English (1964) under the title *The Technological Society*. Its translator, John Wilkinson, had heard of it through his University of California colleague at the time, Aldous Huxley (both also present at the meeting), who had suggested that the book would become one of the century's best works of social criticism. This anniversary of the book's release is an opportunity to reflect on Ellul's arguments and on the critical response they drew, and on their meaning for us today.

One concern about Ellul must be addressed before we proceed. As many critics have complained, his argument at times reaches a low register of angsty fatalism. For this reason, readers who are grateful for the wonders of science and technology that make possible much of what is good about being alive today may find it difficult to tolerate Ellul. But it would be a mistake to disparage his work on this basis, for two reasons.

First, recalling the era in which *The Technological Society* was written, the early 1950s, may help explain some of the doomsaying. The memory of global war was fresh. The atomic age had arrived. The U.S.—Soviet arms race raised the prospect of fiery mass destruction. Powerful new technologies, like television, were reshaping society, while talk of computers and space was moving from science fiction stories to newspaper headlines. Critical research breakthroughs, like the discovery in 1953 of the structure of DNA, hinted at strange new powers. Utopian dreams commingled with nightmares of terrible ruin. Against this backdrop, Ellul asked whether we can truly deliberate about the future when the scales seem rigged in favor of an incontestable notion of technical advancement. Although our hopes and fears may now be different, this question remains at least as relevant today as it was six decades ago, so Ellul's response is worthy of our attention.

Second, describing Ellul as a doomsayer because of how extreme some of his claims sound is, as we will see, unjust and superficial. If we place The Technological Society in the context of some of his other writings and his intellectual, spiritual, and personal commitments, we see his apparent pessimism about our society's bondage to technology alongside what is ultimately a message of freedom and hope.

Ellul's Life and Work

Jacques César Ellul was born in Bordeaux, France in 1912. His father, an Austrian tradesman with roots in Italy, Serbia, and Malta (Ellul is a Maltese name), had come to France to work for a wine merchant. Ellul's mother was a Portuguese-French art teacher and painter. It was thus "somewhat by chance," Ellul said, that he was born in Bordeaux, but he would remain there almost all his life. Both parents, even though they had come from lofty families, possessed but lowly means; Ellul, the only child, was raised on aristocratic values of honor and honesty while suffering the economic hardship of his father's frequent joblessness. That he grew up in a poor family, he later recounted in the autobiographical book Perspectives on Our Age, was one of the "most decisive elements in my life." When Ellul discovered Karl Marx's writings in 1930 in the midst of the Depression, while studying the history of law and institutions at the University of Bordeaux, he felt that "at last I knew why my father was out of work, at last I knew why we were destitute.... Thus, for me, Marx was an astonishing discovery of the reality of this world.... I had finally found the explanation." Even though Ellul came to reject communism and the Marxism then fashionable among the intelligentsia, Marx continued to be the dominant influence on his sociological thought.

But he "quickly realized that Marx did not have answers for everything," especially for the existential questions of life, death, and love. For these he found answers, also in the early 1930s, in Protestant Christianity. Ellul had had no religious upbringing—his father was "a complete Voltairian," highly critical of religion despite his own Greek Orthodox background, and his mother was a devout Protestant but at her husband's wishes remained strictly private about her faith. As we will see, these two commitments—to Marx and to Jesus, and to both in a nonconformist fashion—would come to shape much of Ellul's life and virtually his entire body of writings.

After receiving his doctorate in the history of law in 1936, Ellul became a law professor at a number of universities. He was deeply engaged in antifascist resistance groups, and even met his wife, the Dutch-English Yvette Lensvelt who would be the mother of his four children, at a counter-protest against extreme right-wing students who were demonstrating to defend

Mussolini's invasion of Ethiopia. These experiences were formative, as Ellul would go on to reject all mass movements, whether political, propagandist, or technological. (The two main sociological works he wrote after The Technological Society were Propaganda [1962] and The Political Illusion [1965].) In 1940, he was dismissed from his teaching position by the Vichy government for having warned a group of students not to go home to Alsace, which had been taken over by Germany. With his wife and newborn son he returned to occupied Bordeaux, but the arrest of his father by the Germans and the threat of his wife being apprehended as well—both were foreign nationals—forced the family to withdraw to the countryside where Ellul farmed and raised sheep for the remainder of the war. For some time, he also pastored a local church and participated in resistance groups, helping Jewish families and resistance fighters find safe haven in the free French zone, often by arranging for forged papers. (In 2001, Israel's official memorial to Holocaust victims honored Ellul as one of the "righteous among the nations.")

From the liberation of France in 1944 until his retirement in 1980, Ellul taught the history and sociology of institutions at the University of Bordeaux. But he was never only engaged in the life of the mind; he was also involved in politics and social activism: "intellectual interest means concrete commitment." He served on the Bordeaux city council, although for less than a year, and held out hope that with his experience in the resistance movement he could help bring about thoroughgoing social change after the war, which had torn to shreds the fabric of society. From this stint in politics, however, he concluded that "the politician is powerless against government bureaucracy; society cannot be changed through political action," a view that would become the topic of his 1965 book *The* Political Illusion. Social change, he came to feel, would need to rise from the bottom up, and he began leading student groups on extensive mountain hikes combining practical work with thinking about society. In the late 1940s, he became involved in the founding and activities of the ecumenical World Council of Churches before serving as a national council member of the French Reformed Church, but again he discovered that institutionalism was an obstacle to effective social reform. More successful toward that end by his own estimation was his work with juvenile delinquents and helping to convince government, police, and legal workers that social maladjustment was often a function of society's flaws, not the individual's. Perhaps his most direct and practical strike against the authority of the technicist in society was his environmental activism, for instance to protect a coastal region against the encroachment of mass tourism.

Ellul died in 1994 after a long illness. He left behind a legacy of committed Christian faith and a staggering amount of writings of penetrating social-historical and biblical-theological analysis—over fifty books and about a thousand articles. Since 2000, the International Jacques Ellul Society in partnership with a sister society in France has sought to preserve his scholarly legacy and to apply his ways of thinking to contemporary issues, with articles appearing in *The Ellul Forum*, published semi-annually since 1988. His main work as a legal scholar, a massive five-volume history of the development of legal institutions from antiquity to modernity, has not been translated into English. But his best known and perhaps most disputed work, especially in the English-speaking world, is *The Technological Society*.

"Nothing at All Escapes Technique"

Unfortunately, the English rendering of the book's original full title *La technique ou l'enjeu du siècle* (technique or the stake of the century) as *The Technological Society* is likely to encourage the thought that the book is about technology and its place in society. While this is not entirely wrong, it distracts from the much broader concept of technique.

"As I use it," Ellul wrote in a note inserted in the English edition of the book, the term technique "does not mean machines, technology, or this or that procedure for attaining an end." Rather, it is "the totality of methods rationally arrived at and having absolute efficiency... in every field of human activity." Throughout the book, he also describes it as an "ensemble" or a "complex"; in a later book he would write of "the technological system." Whether such a totality that includes all human activities in fact exists in any meaningful sense is a question critics and commentators have debated since the book's publication. Ellul assures us that it is "not a theoretical construct" but is the defining feature of twentieth-century society. Marx's focus on capital had become outdated. "No social, human, or spiritual fact is so important as the fact of technique in the modern world." The first two chapters of the book aim at making this case.

Although technique does not refer simply to technology and machinery, Ellul writes that the machine "represents the ideal toward which technique strives." The machine has created the modern, industrial world, but it was originally a poor fit for society; technique was the process of adapting social conditions to the smooth churning of the machine, for instance in the way urban housing developed around factories and traffic patterns were then designed to accommodate high-volume traffic in densely populated cities. "All-embracing technique is in fact the consciousness of the mechanized world." Technique is a certain kind of social change, maybe even a *Zeitgeist* or ethos, and the process of adaptation is essential to it.

Furthermore, although we often think of technology as something that flows from science, Ellul argues that technique has historically tended to precede science. The presence of technical ways of manipulating, observing, and thinking about the world is often a prerequisite for new scientific inquiries and insights. (The telescope and microscope come to mind.)

Technique transforms traditional practices by making them conscious and rational—by turning the tacit into the explicit and by relying on the authority of specialists and calculations to find the most efficient, most effective, most profitable way of doing something. Examples are all around us; indeed, Ellul goes so far as to say that "there is no field where technique is not dominant." Consider, for instance, the disciplines of financial engineering and quantitative finance, which are based on applied mathematics, using computational modeling and probability theory to maximize the profitability of financial trades.

Or consider the dramatic increase in recent decades of standardized testing in U.S. public schools. Critics argue that these tests are ill-suited for giving a comprehensive account of students' learning; that they incentivize "teaching to the test" instead of developing thinking skills and encouraging real understanding; and that they transform public schooling into a factory-like system of mass instruction detrimental to freedom and creativity. In Ellul's way of thinking, once the technique of standardized testing is in place, the primary concern for everyone involved becomes improving the means of learning so as to meet the standards, while the ends of learning—the ultimate purposes of educating our young—move out of sight. (Neil Postman, influenced by Ellul, made a related argument in his 1996 book The End of Education.) Also, the tests help create a large complex of interrelated forces and technologies that are autonomous of families, teachers, and students: political initiatives and laws, bureaucrats, test producers and publishers, test scoring technologies, test data analysis and statistics.

How did we reach a point where "nothing at all escapes technique today"? Ellul offers a long genealogy of technique, from primitive man to the Greeks and Romans, to Christianity, the early modern era, and lastly the Industrial Revolution, when technique finally came into ascendancy. Ellul's attention to social changes—technological, economic, legal, administrative, institutional—makes it a more earthy account of modern

technical development than those frequently given that focus entirely on shifts in philosophical and religious outlooks. (This hints at the influence on Ellul of Marx, who famously rejected Hegel's preoccupation with consciousness, rather than the material conditions of life, in understanding history.) While explanations from the history of ideas are not irrelevant for Ellul—although he probably dismisses them far too quickly—he considers them sorely lacking when it comes to explaining the rapid spread of technical development across Europe. A better explanation, he believes, can be found in the convergence of five phenomena in the nineteenth century: the availability of scientific knowledge amassed over centuries; population growth; an economy at once stable but adaptable; a clear intention on the part of the whole society to exploit technical possibilities in all areas; and perhaps most importantly social plasticity—that is, a society willing to surrender its religious and social taboos and to trade in the supremacy of traditional groups for that of the individual.

This social plasticity is both the condition most favorable for technical development and also an effect of this development, especially when technology is exported to societies that are not already plastic; technique creates the circumstances in which it flourishes. In the nineteenth century, for instance, the decreased stability of families, local groups, and rural districts made possible the process of urbanization as cities drew individuals in search of technical labor. The subsequent export of factory work reproduced in other places the same condition of social instability.

Economics, Politics, and Society

Ellul distills the essential characteristics of technique to a list of seven. The two most obvious ones, he says, have been addressed so often by other scholars that he can set them aside: rationality (for example, systematization and standardization) and artificiality (subjugation and often the destruction of nature). The other five characteristics of technique are less widely discussed. They are automatism, which is the process of technical means asserting themselves according to mathematical standards of efficiency; self-augmentation, the process of technical advances multiplying at a growing rate and building on each other, while the number of technicians also increases; wholeness, the feature of all individual techniques and their various uses sharing a common essence; universalism, the fact that technique and technicians are spreading worldwide; and autonomy, the phenomenon of technique as a closed system, "a reality in itself... with its special laws and its own determinations."

The last of these characteristics, autonomy, is especially distressing, for it implies that much of what goes on in economics, politics, philosophy, and society is dominated by technique, whether we know it or not. Ellul writes:

Technique elicits and conditions social, political, and economic change. It is the prime mover of all the rest, in spite of any appearance to the contrary and in spite of human pride, which pretends that man's philosophical theories are still determining influences and man's political regimes decisive factors in technical evolution....

To go one step further, technical autonomy is apparent in respect to morality and spiritual values. Technique tolerates no judgment from without and accepts no limitation.

Perhaps the clearest example that Ellul provides of autonomy is the way that industry and the military began to adopt automation technology. It may appear to us that this process has been driven by economic or political decisions. But in fact, Ellul argues, the mere technical possibility has served as the impetus for achieving it; economic, political, and moral considerations have all followed.

While Ellul has been much criticized for arguing that technique operates autonomously of (although not without) human activity, there are in fact some techno-utopians who seem favorable toward this notion. For example, Kevin Kelly, a co-founder of *Wired* magazine, contends in his 2010 book *What Technology Wants* that technology (the "technium") is autonomous, comparing it to "a very complex organism that often follows its own urges." Many other futurists share this belief, particularly those who dream of a convergence of nanotechnology, biotechnology, information technology, and robotics to produce better-than-human intelligent life.

Ellul spends three chapters further demonstrating how the economy, politics, and society are each increasingly beholden to technique. He then concludes the book with a very short chapter titled "A Look at the Future" that is especially noteworthy. As part of this chapter, Ellul exposes the naïveté of scientists and techno-utopians who predicted the kinds of radical transformations by the year 2000 that in retrospect we can see were gross exaggerations, even if there have been important steps in the projected direction, for instance in genetic engineering, artificial reproduction, and the field we now know as neuroscience. But their naïveté, Ellul writes, has less to do with their technical predictions than with their failure to consider the immense social transformation that would be

necessary to accommodate the new inventions. Ellul urges us to ask the question "how, socially, politically, morally, and humanly, shall we contrive to get there?" The only answer possible—the only one that would correspond to the promise of the radical technological change—is a totalitarian dictatorship, Ellul says. In other words, these scientists' and futurists' platitudes about the golden age ahead are empty of all moral and political wisdom. "Particularly disquieting is the gap between the enormous power they wield and their critical ability, which must be estimated as null."

Ellul made clear earlier in the book that human adaptation to technique is certainly possible and is in fact constantly occurring. He does not argue, as some critics of technology do, that people are always *subject* to various techniques—we do often govern them: we operate machines, we construct roads, we print newspapers. But even in governing techniques, we adapt to their demands and structures, and our activities are gradually shaped by them. *The Technological Society* raises the question of whether this social adaptation is as desirable as we tend to assume it will be.

A Mixed Reception

The book was all but ignored upon its publication in France in 1954. John Wilkinson, who would translate it into English a decade later, noted in an interview that he could not find any reviews but for one in the London *Times*, even though Ellul was fairly well known in France.

The Technological Society has had more influence in the United States than anywhere else. The Center for the Study of Democratic Institutions, which had hosted the 1962 Encyclopædia Britannica conference and arranged the book's translation, did much to promote early discussions of Ellul's argument, especially under the leadership of Robert M. Hutchins and one of the Center's consultants, Scott Buchanan-both prominent champions of liberal arts education. In his conference paper, Buchanan suggested that if Plato, in writing his Republic, "had been faced with the panoply of artificial technical operations, processes and products among which we live, he surely would have been led to construct something like the technical phenomenon that we find in Jacques Ellul's La Technique." Columbia University sociologist Robert Merton wrote in the introduction to the English version that Ellul's "comprehensive and forceful social philosophy" of our society is "neither a latter-day Luddite tract nor a sociological apocalypse. He shows that he is thoroughly familiar with the cant perpetuated by technophobes and for the most part manages to avoid their clichés."

Among Ellul's many critics, one early reviewer of the book described him as having "an agile mind belaboring an over-simplified analysis." Ellul has defined technique so broadly, the reviewer wrote, that he is compelled to see all social development as lumped together within it. Similarly, a leading sociology professor wrote, "more philosophical than sociological, this treatise belongs among other writings on the Lugubrious Fate of Man," and its thesis cannot be falsified because it is largely true by definition. A 1964 article in the *New York Review of Books* (which drew a response from Ellul) accused him of providing "no factual information" and called the book fantastical and hostile to modern technology. In a 1984 book, the German-American philosopher of technology Albert Borgmann criticized Ellul for trying to use technology "to explain everything" even while leaving "entirely unexplained and obscure" just what technique and technology are.

Perhaps the most typical response to *The Technological Society* is summed up in the sentiment of another reviewer who in 1971 pointed to an "underlying absurdity...in Ellul's tireless insistence that there can be no hope for man to escape his apocalyptic impasse with technique." Christopher Lasch too, in a 1970 essay on Ellul's sociological works, points to his "technological determinism" and the "bleakness" of the book's pessimism.

More recently, technology critic Evgeny Morozov in *To Save Everything*, *Click Here* (2013) rejected wholesale Ellul's attempt at understanding technique as inclusive of but much greater than particular technologies: "Such grand rhetoric, for all the quasi-religious fervor it used to generate, is long past its expiration date. It's time to give up this talk of 'Technology' with a big T and instead figure out how different technologies can boost or compromise the human condition."

Not everyone is so down on Ellul's analysis of technique. It is still regularly referenced and quoted in popular and scholarly books and essays about technology. A 2012 volume about Ellul by three Wheaton College professors includes a chapter dedicated to his thoughts on technology. More than a dozen essays are collected in the 2013 anthology Jacques Ellul and the Technological Society in the 21st Century, including one in which the philosopher of technology Carl Mitcham sheds light on how The Technological Society became more important in the United States than in France. (Christian sociologists and political activists deserve the credit, Mitcham explains; the former found the book useful for their critique of racism and consumerism, while the latter found it helpful in challenging the idea of American exceptionalism during the Vietnam War.) And it is

surely noteworthy that *The Technological Society* remains in print a half-century after its English-language publication.

In some respects, the critical response to The Technological Society is similar to that received by Martin Heidegger's essay "The Question Concerning Technology," which was published the same year Ellul's book was originally released. Both scholars are often looked at as too deterministic, too pessimistic, and so generalizing in their claims as to obscure crucial differences. The two texts indeed have much in common: very broad definitions of technology, arguments about the priority of technology over science, attempts to get at the essence of how technology operates on our perception and actions, claims that technology plays essentially the same role in the Soviet Union and the United States, and an overall demoralizing assessment of human entrapment in this crisis. And yet Ellul and Heidegger are worlds apart in their respective views on politics and religion, and on the role philosophy and history play in understanding technology. As early as 1934, Ellul was aware of Heidegger's political views and concluded, as his long-time interviewer Patrick Troude-Chastenet writes, "that someone who made such gross errors of judgment in political thinking could be of no avail to him in his search for an understanding of the world in which we live." Ellul objected to Heidegger's abstract language and denied all intellectual association. Troude-Chastenet warns against mistaking Ellul's theories for a copy of Heidegger's or of those of the Frankfurt School. Ellul had "not read the former" and "diverges on a good many points from the latter."

The Missing Dialectic

Ellul seems to have anticipated many of the criticisms that have been leveled against *The Technological Society*. In the book's introduction he mounts a proleptic defense against the charge that he is a pessimist or a fatalist. But this defense highlights a tension present in the book's conflicting sentiments about technique, which may be more problematic than Ellul realized. On the one hand, he writes that "at stake is our very life, and we shall need all the energy, inventiveness, imagination, goodness, and strength we can muster to triumph in our predicament." And explaining the nature of his task, Ellul compares himself to a doctor in an epidemic or a physicist exposed to radioactivity, who uses objective methods in diagnosing the problem even while knowing that he is himself affected by it. The gloominess of the analogies is obvious. On the other hand, he immediately says that he does "not mean to suggest that technique is a disease of the body social, but rather to indicate

a working procedure." Neither does he mean to show "that man is determined, or that technique is bad, or anything else of the kind."

How are we to reconcile Ellul's defense against the charge of pessimism and determinism with his insistence that he is sticking to the facts, that he is making an objective—historical, sociological, if not impersonal—case for the all-pervasiveness of technique and its demands on man? It appears he was aware that in some way his account looked darker than he actually felt it to be. Was there some part of his whole outlook that he omitted, something that would render his diagnosis less technophobic, anti-progress, anti-science, or whatever other labels one might give his analysis? An answer to this question turns out to be complex but illuminating for our reading of *The Technological Society*.

Commentators have repeatedly pointed out that no clear understanding of Ellul is possible unless we acknowledge the extent to which he is indebted for his method of inquiry to several important thinkers: his historical-sociological works draw on Marx, and his theological books draw on Søren Kierkegaard and the Swiss theologian Karl Barth. The defining feature of Ellul's method is that it is dialectical in a number of ways—that is, instead of using linear logic to string together empirical evidence, thereby either excluding or synthesizing contraries, he includes them by bringing out the tension between opposing elements. In Ellul's seminal 1948 book The Presence of the Kingdom, which provides a kind of blueprint for the rest of his many works, he writes that in order to discern "the foundations, the structures, the make-up of the present age" he needed an exact method. While "the 'scientific' method of the social sciences (including the mathematical treatment) seemed inadequate," he chose instead "a method close to that of Marx, and above all of [early sociologist Max] Weber." The dialectic approach, with its embrace of contradiction, "has a central place for me," he wrote in the 1981 essay "On Dialectic."

One sense in which Ellul's approach is dialectical, including in *The Technological Society*, is that he looks at society as made up of countless conflicting forces that don't cancel each other out but continually give rise to new situations. Among them are political and economic forces, technologies, laws, institutions, geographical factors, and so forth. This is similar to the sense of dialectic made famous by Marx, but Ellul rejects Marx's (and Hegel's) belief that historical dialectic results in progress. Rather, for Ellul the complex interplay of opposing forces is simply a given feature of being human: "To obey a multiplicity of motives and not reason alone seems to be an important keynote of man," he wrote in *The Technological Society*. And again in that 1981 essay: "Human life has no meaning if there

is no chance of changing anything, no part of one's own to play, that is, if there is no history begun but not yet finished." For Ellul, society is not a determined system but one that is (or ought to be) in constant flux, and the individual can in some important sense be free to shape it.

The threat of technique is that it suppresses this multiplicity and flux, binding opposing forces into a uniform, static, and paralytic system, as in totalitarian societies. Some examples scattered throughout the book are pertinent for today: state control of the economy threatens private enterprise and its profitable competition; state surveillance of its citizens erodes the division between private and public activities; the messiness of political decision-making is often resolved by consulting technical experts, for instance regarding finance and the economy, whose authority is rarely challenged (most obviously in communist societies, but, Ellul argues, to a growing degree also in democracies).

Technique is most efficient at ironing out society's wrinkles, Ellul says, when we have learned to ignore the mechanisms of technique. For example, a government's surveillance of citizens or a business's tracking of consumer habits are most efficient when we are unaware of them or have become accustomed to them. The fact that they make us uncomfortable when thinking about them suggests that we recognize natural tensions between us and the government or the business.

A second sense in which Ellul's work is dialectical further chips away at the notion that he was a determinist or a pessimist. This is the tension between his sociological and his theological writings, between his commitments to Marx and to Barth. Ellul's theological books, while not meant to refute his sociological claims, tell a very different story—of freedom, responsibility, and hope—that pushes back against the rigidity of technique as a social system.

Ellul's sociology and his theology have to be held in constant tension, informing and confronting each other, for a full picture of his position. In a 1970 article in *The Christian Century*, Ellul explained that "every sociological analysis of mine is answered (not in the sense of replying, but in that of noting the other dialectical pole) by a biblical or theological analysis." According to this grand scheme, the theological counterparts to *The Technological Society* include *The Meaning of the City* (1970) and *The Ethics of Freedom* (1973–1974).

Most critics of *The Technological Society* have considered the book by itself and not in its dialectical tension with its opposing pole. This is unsurprising, since Ellul does not mention in *The Technological Society* that the book is only one side of a dialectical whole. In the essay "On Dialectic,"

he lamented that "my attempt seems to have failed: no one is using my studies in correlation with one another." This accounts for the widespread belief that *The Technological Society* paints an all too deterministic, fatalistic, and pessimistic picture of society.

Facts and Interpretations

Another reason the book seems so pessimistic is that Ellul's hunt for technique in society appears to make him see a target in every shifting shadow. Technique seems to become the explanation for all social changes whatsoever: Jazz music, contrary to its appearance, enslaves rather than liberates. Progressive education (for instance that of Maria Montessori) is a covert tool for social adaptation. Professional sports involve mere technical skill and are a product of industrial city life, where workers are sufficiently mechanized to be good at sports. Vocational guidance serves to fit the worker into the cogs of production. "Man is caught like a fly in a bottle. His attempt at culture, freedom, and creative endeavor have become mere entries in technique's filing cabinet." Taken at face value, these are wild assertions and rotten sociology.

However, a more sympathetic reading is also possible: these extreme claims are intentionally hyperbolic. They reduce every social phenomenon to technique so as to reveal the absurdity of our unrestrained fascination with it. This is a position the translator John Wilkinson seems to have held, when he said in an interview that Ellul "reduces, for admirably dialectical clarity, everything *ad absurdum.*" Another interpreter of Ellul, Katherine Temple, in her 1980 essay "The Sociology of Jacques Ellul," wrote that "if he implies that the entire society is already machine-like, it is only to demonstrate the probable outcome, should present direction continue unchecked. It is almost as if he is saying that people collectively tend to achieve what they desire. The question is, 'Do we realize what is finally involved in what we now desire?' The picture can be painted only by pushing it to its logical extremes."

Strong support for this reading comes from an important aspect of Ellul's approach. Anticipating the charge of neglecting the action of the individual person from his account of technique, Ellul explained in the foreword to the book that he is explicitly taking "a partisan position in a dispute between schools of sociology" by saying that "the individual's acts or ideas do not *here and now* exert any influence on social, political, or economic mechanisms.... I believe that there is a collective sociological reality, which is independent of the individual."

Ellul aligns himself here with other sociologists of mass society, generally influenced by Marx and Weber, for whom at the level of society certain structures exist that have a life or logic of their own, such as the profit motive and bureaucracy. In an especially illuminating passage at the beginning of the third chapter (which one wishes had been at the beginning of the book), Ellul explains how his sociological approach comes to bear on the topic.

The facts, figures, statistics (well or little known) form the background and foundation of my inquiry. It seems unnecessary to reiterate them. They can be found in many books, so I shall continue with the 'cursive' method I have hitherto employed.... [T]his inquiry presupposes that we have escaped not only from sole preoccupation with brute facts but from formal logic as well. Neither gives an account of reality. The point is to let oneself be guided by a kind of logic internal to facts and things.

Ellul continues that in his "extreme view," the facts "respect neither freedom of the individual nor formal logic. I am striving in this essay to find their special consistency and their common tendencies...."

The precise role of facts, of the actual social situation, is thus a bit complicated. Facts are the foundation but not the focus; the aim of Ellul's study is to find their internal coherence and to see how together the various technical aspects of society amount to a sociological reality. The concept of technique, in this light, is on the one hand a tool for understanding relationships between things—for instance between new educational methods and a state's solution to unemployment—and what they have in common. On the other hand, this tool then allows us to perceive a larger social phenomenon: technique is a common factor of many more things.

We might compare this tool to a map. Maps represent observable facts from a given place, but the facts are selectively chosen depending on the kind of map it is, and many details are left out. On a trail map, only the larger elevations, depressions, rivers, hills, and roads are recorded. But with the help of this information, selective and abstracted from reality as it may be, we can make sense of our surroundings, learn about relationships between landmarks, and deduce our own position, which of course is not recorded on the map. Maps *are* interpretations of reality and also help us *create* interpretations of our own experience. Similarly, technique explains the relationships, the inner logic, between the social facts Ellul observes, and in turn sheds light on an array of other social phenomena and on society as a whole.

The wisdom of this method of sociological inquiry is that it acknowledges the subjective element of research; the sociologist investigates society within an explicit interpretive framework, while striving to present the analysis as objectively as possible. The approach rejects the attempt of certain other sociologists, often labeled "positivists," to treat purely empirical data as the sole source of legitimate information for understanding society.

But Ellul's method is not without its problems. His effort to avoid, as he says in The Political Illusion, "the tool that is most widely accepted today: mathematical, experimental, and microscopic sociology" in favor of his own "seemingly less precise" but "more exact" approach in some parts harms the persuasiveness of his claims. In The Technological Society, it is sometimes unclear if he is teasing out the implications of technique discerning its inner logic and applying it to various social phenomena, even when this results in extreme, possibly hyperbolic claims—or if he is making statements about the actual social situation, or if he means for the two to align. The difficulty of answering this question may well be the book's severest weakness. On the one hand, his descriptions of society surely sound as if he means them to be observations of fact. On the other hand, he suggests in the foreword that he provides an "extrapolation" that "never represents more than a probability, and may be proved false by events.... The reader must always keep in mind the implicit presupposition that if man does not pull himself together and assert himself (or if some other unpredictable but decisive phenomenon does not intervene), then things will go the way I describe."

Technique and Christianity

Ellul refuses to offer clear solutions to the problem of technique. He tends to reject the ones conventionally given on the grounds that they will either be useless or will be themselves too caught up in the technical phenomenon. The closest Ellul ever came to proposing a solution was in later essays in which he calls for an "ethics of nonpower," whereby "man will agree not to do all he is capable of." This includes choosing not to maximize certain technical means in one's private life as well as in the public sphere. It is not until we are capable of this kind of relinquishment that we can be free, both *from* technical determinism and *for* rational control of technique, as neither type of freedom is a simple given.

Ellul leaves ambiguous how such an ethic would take effect. He also rejects the approaches of most other Christian thinkers, who either try to baptize contemporary social trends and techniques—appropriating them for their cause—or to make Christian theology and practice palatable to a given intellectual or cultural movement—as mainstream Protestant theology had done. Instead, Ellul attempts to bring the present age into full confrontation with New Testament Christianity, without trying to synthesize the two into a coherent system of thought from which solutions could be deduced. This stance places him in the nonconformist tradition of Christian writers and activists who emphasize Christianity's "revolutionary" character with respect to society. The term is central for Ellul, for instance in his 1969 book Autopsy of Revolution. Already in The Presence of the Kingdom (1948), Ellul argued that the conventional, Marxist sense of "revolution" is illusory; communism, like fascism, embraces technical development, bringing technique to its logical end rather than upending its logic. In fact, "all parties, whether revolutionary or conservative, liberal or socialist, of the Right or the Left, agree to preserve" the status quo of technique's supremacy. What is needed is a true revolution, which Christianity by its essence is uniquely equipped to effect—being in the world but not of it, living the hope of a kingdom already here but not yet. This is not a political or social revolution in the usual sense. Instead, it is one that persistently questions society's stubborn assumption that scientific fact and technology will cure all social ills and that insists that faith in Christ implies what Ellul called an "agonistic" life, confronting the powers of the age (including the power of technique) with the liberating hope of Christ, which is a way of sustained resistance and thus of suffering. Revolutions of this kind, he writes in Autopsy of Revolution, "are always acts abounding in hope," as they are forward-looking, seeking to establish a more acceptable reality through constructive efforts rather than mere rejection of the present. Of course, confrontation goes both ways; Ellul intends his sociological works in part to urge Christian intellectuals to take society seriously on its own terms.

Ellul's claims about revolutionary Christianity are directly relevant to his worries about technique. In the essay "On Dialectic," Ellul concludes that "a total system which embraces all activities" can only have a dialectical opposite "indispensable to life and history" that is outside itself, which must be the revealed transcendent. And so we see how Ellul's seeming pessimism is actually the site of his deepest hopes: the only possible escape from technique is faith.

Not so fast, critics of Ellul might reply: the "total system" is surely a phantom product of Ellul's method. People assert their freedom from technology, and thus the possibility of its rational control, whenever they engage with culture and the arts, sports, or nature; faith is not the only way.

Perhaps so. But as more and more activities and areas of life get absorbed in technique—in recent years perhaps most visibly through digital technologies shaping friendships, learning, buying and selling, travel, music, leisure, and much else—the possibilities of pushing back against it diminish. The lesson here is not that the particular technologies are necessarily harmful and ought to be shunned. Rather, while they aim to make countless activities easier and more efficient—and us happier—they tend to obscure from our vision the real, kaleidoscopic, sometimes maddening but appropriate complexities of these activities. Education, political engagement, friendship, artistic and scholarly excellence, moral and intellectual virtue—these are and remain vexingly difficult, and there are no shortcuts to becoming good at them, even if various tools are helpful along the way. What we need is to learn to appreciate the tensions and difficulties of pursuing these deeply meaningful ends. As Ellul writes in The Political Illusion, "Only tension and conflict form personality, not only on the loftiest, most personal plane, but also on the collective plane."

An ethics of nonpower—choosing not to exercise mastery at the expense of proper human ends—will involve tensions and conflicts, the maintenance of which is a prerequisite for the pursuit of the best things. The craftsmen of governments demanding separation of powers and a system of checks and balances recognized this principle, ensuring restraint and organized tensions to prevent despotism. Freedom requires tension, and Ellul in his insistence on dialectical thinking is ultimately concerned with preserving human freedom. Whereas technologies grant us greater freedom to master our environment, technique as a whole restrains it and itself becomes the new environment resisting our mastery. An important point Ellul seems to have missed is that for the technician, the craftsman, and the mechanic, mastery over technology requires not confrontation from without but proper care for the thing and submission to its physical demands. Freedom from the tool goes hand in hand with freedom and skill to manipulate it, which often makes older tools that reveal their workings superior to the new ones that conceal them. The master technician may thus be freer than the mere user who has not been disciplined by the making of the tool.

Nevertheless, Ellul's analysis of freedom holds up, since most of us are not masters but consumers of technology, adapting to it and prone to mistake the valuable tensions involved in pursuing the highest goods for nothing but technical problems to be solved (and surely our technicians are no less prone to this). Recognizing the value of these tensions can be

difficult, as in many areas of life the constant improvement of techniques to alleviate them becomes an unquestioned goal. But standardized tests cannot measure students' curiosity, social networking cannot replicate the fullness of face-to-face relationships, and poll-tested ads are no substitute for political deliberation. Of course most of us know these things; and yet, our social ethos seems fixated on prizing ever better tools as ways of overcoming challenges and relieving tensions that we ought to recognize as indispensable to many kinds of excellence. Technique has become sacred and must be desacralized, Ellul writes in his conference paper, and especially in *The New Demons* (1973).

One way to think about the role of Christian faith for Ellul is that it establishes the one indispensable tension that stubbornly reasserts the limits of technical means, as it is the tension for which no technical means can be devised—the personal encounter with the sacred Other. Here, dialectic cannot be smoothed out, and any meeting between the two, any real presence—in Christ and the Eucharist, in revelation and prayer—remains inscrutable, which is a point less apologetic than descriptive.

A Middle Path

It is the premise of a dialectic, both in Ellul's method and in society, that has arguably been the biggest stumbling block for readers of The Technological Society, at least in America. The Anglo-American tradition of analytical reasoning and empirical research in the social sciences is inhospitable to continental European approaches that, as Scott Buchanan explained in his 1962 conference paper, allow for "many-storeyed imagination and speculation." The American preference for more "scientific" methods in social research renders Ellul's social analysis hopelessly inadequate and too philosophical. Technique, in this light, is a uselessly vague concept; in its place, we prefer to investigate particular technologies and their effects. And by studying only technologies, it is unlikely that we will recognize a "technological system" of the sort Ellul describes; consequently, no dialectical opposite is needed to confront it, assuming it would be a problem if it existed. These sentiments go a long way toward explaining some of the obstacles The Technological Society has had in reaching a wide and sustained readership. They also help explain why of Ellul's fifty-some books substantially more of his theological than his sociological ones have been translated into English.

But while America was not exactly fertile ground for Ellul's argument, it was, at least in Ellul's own estimation, the soil most thirsty for it

as readers recognized their society's over-commitment to technique. Over thirty years later, he wrote of the book's reception that in France,

people did not read the warning, and the book found its way onto library shelves and among the quiet studies of slightly outdated intellectuals. The only ones to take it seriously belonged to a society in which it was already too late to do anything—the USA. There both intellectuals and the public at large seized on my book because it described exactly what they were already experimenting with and experiencing....In France people dismissed my expositions as the reveries of a solitary walker who prefers the country to the town.

Neither of these two options—wholeheartedly embracing the technological imperative or shunning it with anti-civilizational escapism à la Rousseau—is a fitting response to the warning of *The Technological Society*. We ought instead to take Ellul's book, placed in the context of his larger work, as an appeal to walk a middle path between unrestrained technophilia and reactionary technophobia, a path we see only if we refocus on human ends, which are familial, communal, political, and ecclesial. This requires that we are willing to admit that among our vast array of technical means many fail to serve us well, that progress on this path has often little to do with innovation, and that control over our means is not simply given but something we must struggle for by confronting them with these higher than technical ends.