

Philosophy of Engineering and Technology 13

Helena M. Jerónimo
José Luís García
Carl Mitcham *Editors*

Jacques Ellul and the Technological Society in the 21st Century

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VOLUME 13

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Editors

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Chapter 1

Introduction: Ellul Returns

Helena Mateus Jerónimo, José Luís Garcia, and Carl Mitcham

Many nineteenth century thinkers, convinced of the Enlightenment premise that both nature and society were intelligible, and carried away by the growing prestige of the sciences, saw progress as a natural human development and believed that rational criteria guided societal choices. Biological evolution also appeared to provide a model for change applicable to history. An associated triumphalism in modernity dominated European popular culture until the outbreak of World War I and the post-war rise of dictatorial regimes. Yet even then a positive view of science remained largely intact. Even after World War II, the Shoah, saturation bombings of civilians, and the atomic destruction of Hiroshima and Nagasaki, the industrialization of science proceeded at an ever faster pace, assisted by an increasing involvement of state power. The United States science adviser Vannevar Bush (1945) went so far as to present post-World War II science as an “endless frontier” and font of social benefits in healthcare, economic development, and military defense.

In the midst of this enthusiasm for science and technology there was unease and insecurity in popular culture. In the middle of the twentieth century new genres of science fiction worry films such as *Invisible Monster* (1950), *Them!* (1954), and *Invasion of the Body Snatchers* (1956) together with the suspense message dramas of Alfred Hitchcock’s *Rear Window* (1954) and *Vertigo* (1958) began speaking to

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a growing concern in the public mind. Jacques Ellul was one who understood the unstable foundations and contradictions of this post-war moment, a period that was simultaneously optimistic and fearful. His intellectual journey was an attempt to understand the course of history in his own time, a process that took him beyond prevailing contemporary ideas and dogmas. Ellul was part of a twentieth century trajectory in thought that revisited the relation between philosophy and science, turning away from both epistemology and scientism to a questioning of scientific and technological culture. This questioning included a re-examination of the anthropological meaning of the technoscientific undertaking, of the responsibilities scientists and engineers acquire in attempting to master the worlds of nature and society, and of the metaphysical attitudes that ground any modern faith in science and technology. Along with such diverse thinkers as Edmund Husserl, Lewis Mumford, Hannah Arendt, Günther Anders, Hans Jonas, and Ivan Illich, Ellul was a pioneer in re-framing technology in moral problematic terms. Each argued in distinctive ways that modernity lacked the resources for understanding the power for good and evil unleashed by technoscience.

1

Jacques Ellul was born in the village of Pessac, near Bordeaux, France, on 6 January 1912 and died there on 19 May 1994, at the age of 82. His life therefore spanned virtually the whole twentieth century and its radical changes in society and ways of life. While a secondary school student, he met Bernard Charbonneau, with whom he was to have a lasting friendship and intellectual affinity, ranging from a shared interest in ecology to a common critique of the prevailing form of economic development and technological society. He studied law at the University of Bordeaux and began to read Karl Marx; having been brought up in the Calvinist and Augustinian traditions, he would later extend his interests to theology. During the 1930s, together with Charbonneau, he was part of the Personalist movement led by Emmanuel Mounier. He also made a brief effort at involvement on the Republican side in the Spanish Civil War. He married in 1937 and became Professor of Law at the Universities of Montpellier, Strasbourg, and Clermont-Ferrand. Under the Vichy regime he was expelled from the teaching profession and moved to a small village in the Gironde, where he worked with peasants, was an active member of the Resistance, and undertook formal theological studies. In 1943, he became Assistant Professor of Roman Law and History of Law and Institutions in the Faculty of Law at Bordeaux. From 1947 on he also taught at the Institute of Political Studies in Bordeaux. His lectures focused on the philosophy and economic thought of Marx and his successors and on the study of technics and propaganda. He remained in these posts until his 1980 retirement.

During his academic years Ellul constructed an increasingly broad body of work in the social sciences, theology, and public engagement, but the one we primarily focus on in the present volume is his seminal 1954 book *La Technique*

ou l'enjeu du siècle. Since its publication many of the issues touched on there, from the threat of nuclear war and environmental deterioration to risks and globalization, have only increased in salience. Particularly from the time it was published in an “American edition” in 1964 as *The Technological Society*, with a foreword by sociologist Robert K. Merton, this book has encouraged a diversity of thinkers to address *Technique* or technology as a theme for critical reflection. Ellul’s own study on this topic expanded in *Le Système technicien* (1977) and *Le Bluff technologique* (1988) – which with *La Technique* constitute a basic trilogy – as well as other books such as *Propagandes* (1962) and *Sans feu ni lieu* (1975). In his interdisciplinary reflections on history, politics, law, social life, and theology he repeatedly pursued such questions as: How does modern technique influence human beings? What is the hidden enigma in that which we call technique (or technics), and what is the reality of that which we call modern society? As his own words explain:

La Technique [1954] studies society as a whole; *Propagandes* [1962] examines the technical means which change opinions and transform individuals; *The Political Illusion* [1969] is a study of how politics is transformed through being part of a technological society; and *The Metamorphosis of the Bourgeois* [1967] of how classes are transformed in a technological society. The two books on the *Revolution* [1969, 1972] question whether it is possible to have a revolution in a technical society. *Le Système* raises another issue: ‘technique’ as a system within a technical society; or, what does systems analysis teaches us about the phenomenon of technique? Finally, *L’Empire du non sens* [1980] is a study of how art is transformed by the technical milieu (Ellul 1981: 156).

Ellul used the French *technique* (German *Technik*, English *technics*) in a broad sense. He disagreed with a tendency to limit technique to particular technical devices, the most obvious of which are machines, and insisted on understanding it as a set of methods, rationally determined and aimed at effectiveness in some well-defined context. In this respect Ellul distinguishes between isolated technical operations and the technical phenomenon manifest throughout such operations in modern technics. In premodern or traditional technics any method remained embedded in its particulars whereas modern technics has become disembedded from and therefore able to be applied to particulars. Equating technics with technical knowledge in this way seems to be in line with the Ellulian understanding of *technique*, although it is not an identification Ellul himself makes. All human action requires knowledge, and technological knowledge is undoubtedly now one distinctive cognitive engagement with the world: knowledge that can be formulated in terms of an input–output analysis does not look beyond itself. It is a rational knowledge of means rather than ends (about which it is commonly argued there can be no rational knowledge, only opinions and preferences). Such input–output means knowledge, once the inputs and outputs are contextually specified, can be formulated precisely and this endows technological knowledge with the illusion of certainty. For Ellul, the intellectual character of the modern age is bound up with the sovereignty of technique, because human reason has come to identify itself with technological thinking. Remarkably, in the same year that Ellul published *La Technique* the Martin Heidegger’s “Die Frage nach der Technik” (1954) appeared, arguing that “the essence of *Technik* is nothing *technikishe*” and for

an understanding of modern *Technik* as a *Gestell* or framing of the world in terms of *Bestand* or resources. There are obvious affinities between the two analyses and both have been subject to similar criticisms for their abstract character. But there is a concreteness to Ellul's that frees it from the weaknesses of a thinking associated with National Socialism.

Recall briefly the seven concrete characteristics Ellul finds in the modern phenomenon of technology: rationality (*rationalité*), artificiality (*artificialité*), automatism of technical choice (*automatisme du choix technique*), self-augmentation (*auto-accroissement*), monism (*unicité* or *insecabilité*), technical universalism (*universalisme technique*), and autonomy (*autonomie*). Rationality references the fact that every adoption of technique entails some conscious analysis, usually of an input–output type. Artificiality describes the character of a world more and more the product of human construction such that humans themselves become responsible for an ever increasing proportion of the maintenance for the environment in which they live. Automatism in technical choice is present insofar as technical rationality takes on a more or less automatic character and is assumed to be “the one best way” to make decisions that themselves become calculations (e.g., in cost-benefit analysis). Self-augmenting growth emerges when technique reaches what economists once called the “take off” stage of economic growth, when growth becomes self-sustaining. Indivisibility denotes the way the components of technological systems become unified wholes acquiring a degree of independence as a technical milieu that paradoxically also requires constant attention and maintenance. Eternal vigilance is the price of artificial complexity. Technological universalism highlights both the tendency for technology to expand geographically, absorbing all countries, peoples and civilizations (through factors such as war, trade, transport, communications, and the export of technical labor), and its dominance over all fields and activities. In his description of technique, Ellul draws attention to the fact that it acts as much on the substance of the inorganic world (he cites the example of the atom; we could now mention nanotechnology) as on the organic (now in genetic and molecular, synthetic biology). The distinction between the born and the made is gradually subverted.

Characteristic autonomy, which partially incorporates some other concrete features, has been the most provocative and widely discussed of Ellul's key aspects of the technical phenomenon. Technology is autonomous in relation to economics, politics, morality, and religion insofar as these other social institutions find it increasingly difficult to exercise their independent forms of life. Just as in the European Middle Ages the church might have been described as autonomous insofar as it held sway over many other social institutions, so in the modern world technology appears to hold pride of place. Neither economic nor political priorities govern technological change: technology itself shapes other forms of social change. Although the particularities of technical change are influenced by entrepreneurs taking advantage of new affordances (as with such innovations as Google or Facebook, for instance), the deeper technical structures are less determined by external than by internal logics (Moore's law of increasing computing power, for example). As Ellul writes in one summary statement from a page early in *La Technique*: “Technique has become autonomous, creating its own devouring world,

which is a law unto itself, denying all tradition” (Ellul 1954: 12). Although such language has been largely rejected in scholarly parlance in favor of arguments for social construction, for many high-tech workers there is something about it that continues to ring true. For instance, Kevin Kelly (2010), the founder of *Wired*, the original techno-glamour magazine, writes unabashedly about “what technology wants” and its autonomy.

Technological patterns and the direction of technological innovation over the last decades are broadly in line with the characteristics of technology as Ellul continued to observe them in *Le Système technicien* and *Le Bluff technologique*. Consider the following selective examples: with regard to artificiality, technology increasingly dominates organic life through the increasing “technification” of biology and associated commercializations. A wide variety of synthesized organic substances are used today in a multiplicity of industrial applications, including in the sensitive areas of food and health. With regard to self-augmentation and monism, there is the field of “anthropotechnics,” which is driving the construction of what one philosopher has called a “human park” (Sloterdijk 1999), or perhaps more aptly, a human zoo, in addition to the world of the genetic super- and bio-markets, of *babybusiness* and of liberal micro-eugenics. Technological convergence is part of the synergistic cross-fertilization of nanotechnology, biotechnology, information technology and new technologies based on cognitive science. In *Le Bluff technologique*, before turning to the domain of entertainment, Ellul put forward an idea that is the key to the forms of organization which structure our world: the “science-technology-commodity complex” (1988: 412). The same is being manifested in globalization (or *mondialization* in French) and the creation of a scientific-technological-trade complex. Originally in *La Technique* and then again in *Le Système technicien*, Ellul glimpsed the fact that modern technology has become synonymous with the world as a whole, because the influence of technological forces reaches the whole planet, so that the former historical situation in which civilizations followed different paths, changes to one in which all are on the same pathway, moving in the same direction, albeit at different points or stages.

Eighteenth and nineteenth-century prophets of technological civilization such as Henri Saint-Simon and H.G. Wells had imagined technology as a peaceful endeavour that would serve human purposes. Ellul’s theories, worked out in the middle of the twentieth century, show us a technology associated at least as much with war, economic competition, planetary globalization of the market, and the power of the big corporations. For Ellul, technology, much more than capital, is the core element of modern civilization, and we have to recognize today that not only has technology acquired much greater power to shape and condition humanity, but that it has also merged with capital in an intensely dynamic fusion. The idea of the science-technology-commodity complex is a true picture of the system in which we live, in which science, research, and the university are all driven by the search for efficiency and placed at the service of the demand for even more technological innovation directed at the global market.

His illuminating and prophetic work on the emergence of the phenomenon of technology has acquired classic status among those who interpret the advanced

societies of our age as inherently technological. The concept of “a classic” means that those who study and write about society today believe they can continue to learn from the work of Ellul. In many intellectual and academic circles *La Technique* was received as one of the most significant works to be read by anyone who wanted to understand what has been happening in the modern world. International recognition for Ellul began with the reception given to the publication of *The Technological Society* in the English-speaking world, followed by *Propaganda*, each work shedding light on the other. The Canadian philosopher George Grant, for instance, in his review of *The Technological Society* wrote, “Nowhere is Ellul clearer than in dealing with the great liberal chestnut that technique in itself is never wrong but only the use men make of it” Grant (1998 [1966]: 396). In the specific field of studies of technology and the technological society, Ellul’s work lays down some fundamental criteria for debate. His work continues to be controversial while encouraging to networks and societies (such as the French Association Internationale Jacques Ellul and the U.S. based International Jacques Ellul Society) dedicated to discussing his legacy.

2

The year 2012 marked the centenary of Ellul’s birth. The publication of a book in honor of this occasion is an opportunity to reflect once again on his thought and on the best ways of evaluating and honoring his legacy. In June 2011, a bilingual international conference was held at the *Instituto de Ciências Sociais* of the University of Lisbon (ICS-UL), Portugal, titled *Rethinking Jacques Ellul and the Technological Society in the 21st Century/Repenser Jacques Ellul et la Société Technicienne au 21^{ème} Siècle*; the object was expressly to discuss Ellul’s legacy. The essays now being published derive from that conference, by scholars of diverse nationalities – Canada, France, Portugal, Romania, South Korea, Spain, United Kingdom, and United States – who approached Ellul from diverse perspectives. Overall, they provide a lively exchange of interpretations on the technological society today, and testify to the continuing impact of Ellul’s thought.

The book is divided into three parts. The first discusses Ellul’s diagnosis of modern society, and addresses the reception of his work on the technological society, the notion of efficiency, the process of symbolization/de-symbolization, and ecology. The second analyzes communicational and cultural problems, as well as threats and trends in early twenty-first century societies. Many of the issues Ellul saw as crucial – such as energy, propaganda, applied life sciences and communication – continue to be so. In fact they have grown exponentially, on a global scale, producing new forms of risk. Essays in the final part examine the duality of reason and revelation. They pursue an understanding of Ellul in terms of the depth of experience and the traditions of human knowledge, which is to say, on the one hand, the experience of the human being as contained in the rationalist, sociological and philosophical traditions. On the other hand there are the transcendent roots of human existence, as well as “revealed

knowledge,” in the mystical and religious traditions. The meeting of these two traditions enables us to look at Ellul’s work as a whole, but above all it opens up a space for examining religious life in the technological society.

The first essay evokes Ellul’s most celebrated work of 1954. Carl Mitcham discusses why the book was so much more popular in the United States than in France or anywhere else. Going beyond the general critical background of thinkers about technology such as Spengler, Jaspers, Mumford, Ortega y Gasset, Giedion, Heidegger, and the radical American tradition of concern with nature as found in Emerson, Thoreau, Muir and Leopold, Mitcham believes that Ellul’s popularity in the US was due to a chance affinity between his analysis and the experience of two distinct social groups: Christian social critics and political demythologizers, both of whom appropriated Ellul’s ideas. The Christian social critics were involved with the Christian churches in the struggles of the civil rights movements and ecclesiastical contamination by racism. The political demythologizers were opposed to the myth of American exceptionalism, which prevailed even while admitting its errors in Vietnam.

Ellul’s ideas cannot be taken as a closed system. Rather, his thoughts on modern society and rationalization should be compared with traditions such as the sociology of Max Weber. This is what George Ritzer does on the basis of his concept of the “McDonaldization of society.” For Ritzer, the common factors in the “McDonaldization of society” (which seeks to enlarge on Weber’s theory of rationalization) and Ellul’s ideas on technique are the central role attributed to certain characteristics such as efficiency, predictability, calculation and control, and the weighing up of the irrational consequences they may have, such as dehumanization and disenchantment. However, a number of other factors separate him from Ellul, whom he considers to have a dystopian vision of the future. In Ritzer’s view, Ellul’s analysis could benefit from having a more refined and differentiated appreciation of technique, so as to incorporate the idea that some techniques are less of a problem than others or that there are some areas of life less subject to technique than others. This would avoid a reified vision of technique and would recognize man’s key role in it – including that of contesting it.

The prevailing context of rationality in technological civilization, and its obsession with effectiveness, evidence, and univocity, disturbs and reduces the scope for symbols and symbolization. The technoscientific culture that dominates practically all domains of human existence reduces symbols to the level of signs, marginalizing symbolic language and affecting the whole of human culture. Starting from the idea that technical rationality produces irrational outcomes and that technical action, which is supposedly organized on the basis of objective concepts and means, has a significant symbolic dimension, Daniel Cérézuelle reflects on facets of cultural disorganization in the technological society of modern life to argue that the symbolic world which accompanies the process of technification and universalization of monetary relationships may weaken the anthropological foundation that hitherto made technification possible. We live under the “spirit of technicism,” as he calls it, in a clear evocation of Weber. Modern life has a number of features that contribute to the erosion of our symbolic capital: the modern-day inflation in signs and images