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Jacques Ellul and the Technological Society in the 21st Century

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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 technician* and *Le Bluff tecnologique.* 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 tecnologique*, 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 21éme Siécle*; 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

and the rapid changes taking place in the technical infrastructure; the monetization and commodification of modern economic life, which drains the life out of the non-monetary sphere, on which the reproduction of symbolic capital depends; the role of technoscience as a powerfully de-symbolizing social operator, which means that nothing remains intangible and everything is subject to change through the calculations of technical operations. Cérézuelle argues that there is an urgent need to demythologize this technicist or productivist spirit or imaginary.

The coexistence of the logics of symbolization and de-symbolization which are characteristic of technological development is also at the heart of Yuk Hui's essay. Using an Ellulian approach, in which the development of the technological system is a process of de-symbolization, and its principal dynamic the dialectical relationship between de-symbolization and re-symbolization by consumption, Hui sees an affinity with the ideas of Gilbert Simondon. Taking current information technology as his starting point, Hui suggests that we should go further in analyzing de-symbolization, because we are witnessing other forms of de-symbolization which go beyond mere re-symbolization by consumption: there is materialization through superabundant production and processing of data, which are now not just technical, but digital as well, giving rise to a digital milieu. While Ellul had identified the relevance of data processing as an extensively de-symbolizing force at the end of the 1970s, before the proliferation of the personal computer and the Internet, everything is now on a much larger scale. On the one hand, circuits have been created within a retentional system (which is also part of the technological system), and on the other humans have acquired the ability to mediate and anticipate. In other words, de-symbolization is also externalization, a process which the philosopher Bernard Stiegler has described as "tertiary retention." Through the analysis of these two aspects of de-symbolization, Hui seeks to update Ellul's concept of the technological system.

Wha-Chul Son proposes to analyze and interpret the notion of efficiency in Ellul's thought, and suggests we should activate what he calls "purpose driven technology," a new form of technology justified by its ends and not by efficiency. Despite the fact that the "efficiency principle" (EP) is one of the main elements of modern technology, Ellul did not pay much attention to it, particularly when compared to the concept of "autonomous technology." Son argues that the prevalence of the notion of efficiency in modern societies is based on the assumption that all elements can be controlled, including human elements, and that everything can be planned and measured. In this sense, the EP can be seen as the prototype of the "technological bluff," to the extent that it is used to justify any technological development whatsoever. The EP completes the autonomy of technique because, beyond effective efficiency in terms of input and output, it describes a situation in which people accept any device or activity provided that it is characterized as efficient. For Ellul, such assumptions were not only false, but also distorted the reality of the technological society and reduced the scope of personal freedom (by producing "non-freedom"). The "purpose driven technology" which Son puts forward tries to recover human initiative and control over technology, countering the increased autonomy of technology that derives from the EP.

Fashionable theories of "ecological modernization" are also based on the idea that efficiency-based management and confidence in technological development, market mechanisms and the State, can overcome the environmental crisis. Isabelle Lamaud reflects critically on this theory on the basis of Ellul's writings on ecology, a field in which he was highly influential and is regarded as having been a pioneer. Lamaud's analysis does not focus on the capitalist aspects of this theory; she suggests rather that in objectifying and technifying environmental issues, ecological modernization is an obstacle to the questioning of the modernist beliefs which sustain the myth of technical progress. Lamaud argues that the theory of ecological modernization is a kind of "technical ecology," a technical response to a problem which has itself been defined as technical, based on a belief that technique is neutral and the idea that technological development is the only way of dealing with the environmental crisis. The theory thus realizes one of Ellul's fears, that "environmental protection" would effectively not allow technological development to be questioned. In Lamaud's opinion, Ellul's ideas open up the possibility of a non-technical ecology, which is not necessarily anti-technology or technophobic, but that situates it within a framework of social and political concerns.

The second part of the book opens with an essay by Langdon Winner, which offers important insights on the main features of propaganda identified by Ellul, using the example of the popular American TV channel Fox News. Despite its publicity slogans, which advertise its objectivity and impartiality, Fox News frames all its alleged news in a right-wing perspective, which includes a mix of social conservatism, free-market, libertarian, traditionalist, fundamentalist and evangelical Christian, anti-black, anti-gay, anti-immigrant, American nationalist, militarist, and corporatist views. Fox is indifferent to its errors, distortions and lies, and occupies fourth place in the ratings. The consumers of propaganda, as Ellul described them, are not innocent receivers but active participants who seek out and even provoke the psychological action of propaganda. Democracy in modern societies depends on the use of propaganda to mobilize citizens to take part in political processes and as such paradoxically neutralizes those same citizens's original thoughts, civic deliberations and decision-making initiatives. Ellul pointed to the need for trust in direct experience and our own judgment on important social, economic, and political issues. Citizens should avoid pre-defined visions of reality offered up by media professionals, corporate managers, or the agents of any ideology. According to Winner, Ellul's advice here is necessary counsel for the future of democracy.

In a closely related analysis of contemporary society with a focus on cyberculture and the virtual world of global communications, Andoni Alonso considers three major topics in Ellul. One concerns the sacredness that has been acquired by the technocratic discourse of speed, while a second considers the possible means of resistance in the critical discourse generated within cyberculture by hackers or media specialists. Cyberspace and virtual reality are a magic realm for many scientists, some of whom even argue for a certain cyberspirituality, vindicating Ellul's observation that technology has become a new religion with its own imagery and theology. But this new religiosity ignores knowledge workers own psychosocial limitations, which in turn affects speed and acceleration. In a cyber-organized society, where

the capitalism of knowledge is serviced by a new proletariat, computational technologies invade the whole of human life, and the question of speed, as Ellul foresaw, becomes a problem. With the replacement of organic time of attention, memory, and imagination by cybertime, work and leisure are progressively enmeshed in each other while both are undergoing their own fundamental transformations. According to Alonso, hackers and activists for free software represent the possibility of freedom in a world bound by the chains of institutions, corporations, and governments, and are turning into the "unseasonable thinkers" among whom Alonso classifies Ellul.

The resurgence of uncertainty, or unpredictability, as a result of the technological system is the focus of the essay by José Luís Garcia and Helena Jerónimo, who analyze the 2011 accident at the Fukushima nuclear power plant in Japan. After Chernobyl, this was the second most serious disaster in the history of nuclear power, one that took place in a country in the vanguard of technological progress. Behind the appearance of safety and control, the world is organized into technical macro-systems in which contingencies are camouflaged and subsumed into the category of calculable risks. Although nuclear accidents are usually classified as having extremely low probability, they are major and far-reaching events, and their consequences unknown, incalculable, and irreversible. Garcia and Jerónimo question the labelling of these events simply as "risks" and argue that this notion neglects everything which cannot be encapsulated in calculation formulae and underestimates the extent to which alleged gains in energy security are achieved in the shadow of possible catastrophe. On this basis they revisit Ellul's concept of foresight to stress the need for contemporary technological societies to live in a prudent manner, imagine worst-case scenarios, acknowledge that uncertainties are inescapable and realize that future catastrophes are the outcome of our own actions and are practically certain to occur.

Thinking about the real, potential consequences of technology and the issue of decision-making in a democratic context is the theme developed by Patrick Troude-Chastenet around the "Mediator" controversy. This medicine, produced by the French laboratory, Servier, was recommended for asymptomatic diabetes in people with problems of high cholesterol and triglycerides, and was also a powerful appetite suppressant. It was sold in France from the mid-1970s onwards. Studies gradually established that this medication caused heart problems, while at the same time the European Medicines Agency concluded that it was not effective in treating diabetes and that the risks involved outweighed the possible benefits. The medicine was withdrawn from sale in several countries many years ago, but in France it was only banned in 2009, with a death count by then running somewhere between 500 and 2,000. Troude-Chastenet compares this example of belated action by the French authorities to the "contaminated blood" case, the largest public health scandal in the 1980s and 1990s. Such cases offer clues on how to think about the decision-making process in pluralist democracies. For Ellul, authentic democracy has vanished and politics is better characterized by the rule of short-termism and necessity. In these particular cases, instead of increased protection for patients, there was a proliferation of control procedures and expert studies that diluted any personal responsibility. Troude-Chastenet reminds us that, for Ellul, proper political decision-making subordinates means to ends.

The rhetoric of economic necessity and of the inevitability of technoscientific management, used to justify the exploitation of the Alberta tar sands, the third-largest reserve in the world, is the theme of the analysis by Nathan Kowalsky and Randolph Haluza-Delay, who explain how this rhetoric overrides other values such as social stability, religion/spirituality, and sustainable development. Tar sands extraction is opposed by the indigenous peoples and by environmental organizations because of the environmental and social damage it causes, and defended by industry and both federal and provincial governments on account of its alleged economic benefits and the overriding need to ensure the well-being of the inhabitants. In a detailed description of the case, the authors show that both defenders and opponents of tar sands extraction base their arguments on the scientization of the topic. Even while approaching it from completely different angles, the discussion of environmental damage and public health issues surrounding the tar sands, the response to the request for a moratorium by civil society organizations, and the pastoral letter of a Roman Catholic bishop are all expressed in terms of technical rationality, thus corroborating Ellul's position that modern culture is embedded in a technological context.

Ellul explored the rationalist-philosophical and the religious traditions, stubbornly working to preserve the distinctiveness of each. The last part of the book focuses on this theme. Ellul's studies of religious experience in the technical society and the emergence of new forms of the sacred, myth, and religion have inspired many other thinkers. The essay by Fréderic Rognon examines the impact of Ellul's ethical and theological thought on French Protestantism. To this end, he seeks to shed light on Ellul's position in the theological and ecclesiastical context of contemporary French Protestantism and to outline the biographical and intellectual journey of some contemporary French theologians: Gabriel Vahanian, Jean-François Zorn, Olivier Abel, Antoine Nouis, Stéphane Lavignotte, among others. He concludes that Ellul's impact was due more to personal affinities than to a mass social phenomenon. But Ellul had a decisive influence on many individuals' intellectual and spiritual trajectories, extending far beyond the emblematic figures portrayed in this article.

Equally influential was Ellul's critique of the technological society to a group of theologians, engineers, and critics concerned about technology and social justice at the World Council of Churches in Amsterdam in the year 1948. Jennifer Alexander's essay shows how Ellul helped the group think of society in other than Marxist or capitalist terms. He rejected entirely the concept of planning inherent in both. The author analyses Ellul's speech and influence at that World Council of Churches meeting, in particular in the work of Committee III, and the papers drafted in preparation for the Amsterdam meeting. In the meetings and in the papers which circulated before the meeting, Ellul took up a radical position and was supported by a very large number of people in the ecumenical movement. Not all of Ellul's positions appear in the Committee's report, however, nor were they contained in the lecture he delivered to the Amsterdam Assembly. Despite the common concern with technique, there were differences among the Committee III members, and Ellul's vision differed from many others then circulating that criticized the technological society. Alexander argues that Ellul's contribution to the work of Committee III shows how his radical

critique of the technological society has a theological foundation and contains insights into the theological features shared by cultures that have quite different productive and religious traditions.

Virginia Landgraf seeks to imaginatively establish a relationship between Ellul's thought and the Ten Commandments, focusing on the idea that the Decalogue defines the space in which life is possible. This reinterpretation of Ellul on the basis of his theological writings allows Landgraf to ask how people can fight back against the phenomenon of truth having collapsed into appearance. In other words, the collapse of human liberty, destiny and ultimate values into a reality expressed in terms of imaginary abstractions and a belief in power over objects which are seen as being manipulable, but which turn human beings into slaves of the reality they believe they control. Based on Ellul's distinction between truth and reality as "orders" having different characteristics, modes of transmission, logics and attitudes toward the world, Landgraf outlines two parallel readings of the Decalogue in the light of Ellul's theological and sociological writings. In the first, God is specifically named: He ensures that humans will live according to the dictates of the commandments. In the second, Ellul lets it be implicitly understood that people should resist the various ways in which truth collapses into reality. The author suggests that Ellul's interpretation of the Ten Commandments is of crucial importance for understanding the theory of the autonomy of technique. A significant part of the argument underlying this theory derives from the belief that mathematics provides definite, unequivocal results. Landgraf argues that the Ten Commandments shed light on a gap in Ellul's theory of autonomous technique, in that his argument that mathematical answers are indisputable derives not from the nature of mathematics itself, but from the belief that human beings, after the Fall, are envious of reality.

Gregory Wagenfuhr argues that Ellul's work is vital for understanding the modern world, for which the "post-modern" tag is inadequate. Drawing on Jean-Francois Lyotard, and linking his approach with Ellul's concept of technique, Wagenfuhr outlines a view of human life that revolves around the sacred, which integrates people into their milieu. Post-modernity becomes then a justificatory myth, an apparent religion, a diversity of legitimating narratives that disguise the true situation and serve merely to integrate individual persons into the technical milieu. For Wagenfuhr, the continuing use of the concept of post-modernity may turn out to be a "phenomenic error," because it diverts attention away from the truth of the current situation. It is like the phenomenic error that Ellul highlights in his book *The New Demons*, where he mentions that lack of awareness of the secularization of the modern world is one of the three "phenomenic errors" that have occurred in the entire history of Christianity.

Andrei Ivan compares Ellul and Peter Berger as non-conformist authors in relation to Christian revelation and society, based on their views on technology and the modern conscience respectively. Despite their different theological orientations, Ivan argues that a dialogue between the two thinkers provides useful guidelines for thinking about how the human mind has changed in the modern world. Both agree that Christian faith is being eroded. They start out from a common methodological premise, in that while Ellul criticizes the commonplaces of modern society, Berger questions that which the modern conscience takes for granted. For Berger, society

is a social stage, a reality which has to be deconstructed, and this can be achieved by theology in its prophetic form. Tradition not only mediates religious experience; it also tames it. One way it does this is by adapting to the cultural background. This implies a "cognitive surrender," because the external challenge is internalized. Ellul disapproved of any Christian accommodation to the modern age, and was opposed to those who want to "Christianize" the state, society, its institutions, and morality. For him, Christians have made a gentlemen's agreement with culture, but that agreement was only possible because they allowed themselves to forget that Truth has been crucified by Reality.

3

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Part I
Civilization of Technique

Chapter 2
How *The Technological Society* Became More Important in the United States than in France

Carl Mitcham

La Technique ou L'enjeu du siècle has an unusual history. The original French was published in 1954 and made scarcely a ripple in a cultural world dominated by Jean-Paul Sartre (*L'être et le néant*, 1943; *Saint Genet, comédien et martyr*, 1952; *Question de méthode*, 1957) and Albert Camus (*La peste*, 1947; *La chute*, 1956). Although *La Technique* received ten reviews, most were in periodicals associated with French Protestant intellectual life; only one appeared outside France, in Germany.[1] Somewhat surprisingly, the following decades witnessed translations into Spanish (1960), English (1964), Portuguese (1968), Italian (1969), and Japanese (1975). But most publishing houses were second tier and all non-English translations received little notice.

By contrast, the English-language "Revised American Edition," titled *The Technological Society*, appeared under the imprint of the prestigious publisher Alfred Knopf, graced with a foreword by the distinguished sociologist of science, Robert K. Merton. By 1967 at least six selections had been reprinted in other publications and the book had gone into paperback, where it has remained in print for almost 50 years. In no other version has the volume had such staying power. In mid-2011 on Amazon.com there were 19 reviews, of which 11 gave it the highest five-star rating. How is it that this rather abstruse book, loaded with French and European references, came to occupy such a prominent and persistent place in the American intellectual landscape?

[1] For a summary of reviews, see Hanks (2007: 317–320).

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1 Background

The North American reception of Jacques Ellul's analysis of technology did not take place in a vacuum, but against a background of resistance to if not rejection of other more or less insightful critics who had preceded him. Thus it may be useful to begin a consideration of Ellul by referencing some of his predecessors.

Foremost among these predecessors is, of course, Karl Marx. As is well known, what might be termed Marx's phenomenology of economic commodities – as opposed to Hegel's phenomenology of ideas – was never given a sustained and serious reading in the United States. Marx's argument was rejected as placing too much emphasis on economics and as insufficiently appreciative of the socio-political dynamics of democracy and of technical ingenuity.

Marx does not, however, make technique a major independent theme of analysis. It was not Marx and the Marxists but the existentialists, including what might be called existentialist historians, who first broached technique as an issue for extended thematic consideration. Oswald Spengler, for instance, in the 1920s argued for commitment to the machine as the defining characteristic of modern Western civilization (Spengler 1922; see also Chase 1929). But more relevant to present purposes are five other studies:

- Karl Jaspers' *Die geistige Situation der Zeit* (1932);
- Lewis Mumford's *Technics and Civilization* (1934);
- José Ortega y Gasset's *Meditación de la técnica* (1939);
- Siegfried Giedion's *Mechanization Takes Command* (1948); and
- Martin Heidegger's "Die Frage nach der Technik" (1954).

The idea unifying these works is that in diverse ways modern technics has become technology which exists in tension with a truly human life.

German psychologist and philosopher Jaspers, for instance, having observed how human life has come to be seen as "the supplying of mass-needs through rationalized production on the basis of technical inventions," also notes that the new "life-order is perpetually troubled." In its effort to meet the real material needs of an increasing population, "[T]he mass-order brings into being a universal life-apparatus, which proves destructive to the world of a truly human life" – that is, one which undermines tradition and community (Jaspers 1932 [1955]: 29, 37).

Mumford, an American generalist, in *Technics and Civilization* – the first in a four-volume "Renewal of Life" series – identifies many positive transformative influences of technics, but argues that machine civilization needs to be transcended in a more truly life-centered technics. At the same time, there is no turning back. "*Until we have absorbed the lessons of objectivity, impersonality, neutrality, the lessons of the mechanical realm, we cannot go further in our development toward the more richly organic, the more profoundly human*" (Mumford 1963 [1934]: 363, italics in the original).

Like Mumford, Spanish philosopher Ortega sees *técnica* as an essential part of human nature – but only a part. Following his analysis of the existential foundations

of *técnica* in human desire – desire not just for life but for a life of some particular sort – and of the human ability to stand outside any particular life as it might be historically given, in order to imagine other possibilities, Ortega notes that the history of technics is not a history of a univocal activity. The history of technique includes a trial-and-error technics of chance, a craft technics of the artisan, and a scientific technics of the engineer – the latter of which has created a special social problem. The modern engineer, by becoming absorbed in a perfecting of means can lose touch with the capacity to imagine ends. In Ortega's words, "To be an engineer and nothing but an engineer means to be potentially everything and actually nothing" (Ortega y Gasset 1945–1947 [1939]: 366). Modern technics runs the danger of undermining the imaginative life.

Swiss architectural and industrial historian Giedion returns more directly to the argument of Mumford, and elaborates in great detail the enormous post-Industrial Revolution expansion in the realms of mechanization. For Giedion this expansion has created an imbalance. Because "the human organism requires equipoise between its organic environment and its artificial surroundings" (Giedion 1948: 721), it is the task of the present to recreate the dynamic balance.

The German philosopher Heidegger sees *Technik* as more than a mere means, as a kind of revelation or truth; modern technics in fact constitutes the founding of a new way of being-in-the-world that in its elaboration tends to obscure a relation to Being. At the same time that modern *Technik* discloses beings as resource, technology itself is a manifestation of Being beyond resource. In Heidegger's words, "The essence of *Technik* is absolutely nothing technical" (Heidegger 1954: 13). Yet in the midst of the active and dominating presence of modern technics, it is increasingly difficult to accept or experience the ontological beyond that which technology brings into play in the world.

The appeal common to all five criticisms is to something larger or more encompassing than technology, against which technology should be measured. In contrast to the routine, the mechanical, the methodical that characterize technology, all five critics oppose something like life or a living eventfulness. Yet in all such criticisms, the primary manifestation of life (or Being) was tradition and community. Jaspers, Mumford, Ortega, Giedion, and Heidegger thus all constitute what can be called cultural criticisms of technology that are more general than but nonetheless related to the Marxist socio-economic critique of technology. Like the failures of Marxist and non-Marxist socio-economic criticism, when the new European cultural criticisms of technology began to become known in the United States between the 1930s and 1950s, they too received a largely negative response. Like Marxism, they were judged as ideological or unappreciative of what was really happening with technology in the New World.

Indeed, the only Marxism that achieved any significant purchase in the U.S. context was the culturalized version of Herbert Marcuse's *One-Dimensional Man* (1964), which appeared the same year as *The Technological Society*. As heir to the Frankfurt School Social Criticism of a new form of entertainment capitalism that colonized culture with products which reconciled the masses to political oppression, Marcuse sought through Freudian psychology sources for a

liberation of the repressed. However, after the decline of the counter-cultural experience of the 1970s, his rationalization of the revolutionary potential of *avant garde* aesthetic expression, black power, and women's liberation received less than sustained attention.

In the United States what is primal is not an inherited tradition of culture and community or ancient cities with their established art and social orders that are threatened by technology; what is primal is nature – nature as wilderness – and the experience of new socio-cultural beginnings. As these new beginnings in society and culture became corrupted or failed to live up to their promise, the North American mind increasingly turned to wilderness as a fundamental good. In the United States it was the criticism of Ralph Waldo Emerson, Henry David Thoreau, John Muir, and Aldo Leopold and their appeal to life as manifested in uncontaminated natural wilderness that defined the most radical substrate of philosophical reflection.

Compare, for instance, the tradition of Emerson (1803–1882), Thoreau (1817–1862), Muir (1838–1914), and Leopold (1887–1948) with that of Marx (1818–1883) and V.I. Lenin (1870–1924). Both Marx and Thoreau judged the social order to be unjust and oppressive. But for Marx the response was to argue for socialist revolution, turning technology over to an oppressed class, the proletariat, in order to create a new society; for Thoreau it was to argue for a delimitation of technology and a protection of wilderness. Whereas Lenin reduced Marx's ideas to practice through the Communist Party, Muir did the same for Thoreau's idea by creating the Sierra Club.

The nature criticism of technology and what became the environmental movement has had a much more profound and lasting impact, especially in North America, than European socio-cultural criticisms of technology and associated socialist movements. But by the mid-1950s the challenge of radical environmentalism had become largely dormant. The initial success of the environmental movement in establishing a system of national parks, forests, and wilderness areas during the first half of the twentieth century had run its course. Partly as a result of such successes there remained much nature that was still untouched by human development, making it all the easier for World War II to distract the social imagination from environmental issues and the follow-on Cold War to capture the forefront of political attention.

Then in 1962 the publication of Rachel Carson's *Silent Spring* began to reactivate the distinctly North American tradition of environmentalism. Throughout the 1960s a revived environmentalism built up momentum not just to conserve some parts of nature from industrial or commercial development but also to protect nature from the secondary and side effects of development taking place outside parks, forests, and wilderness areas. This new environmental movement led, for instance, to legislative action with the National Environmental Protection Act of 1969 and the executive establishment of the Environmental Protection Agency in 1970. And perhaps in part because Ellul presented the challenge of technology as the replacement of a natural by a technical milieu, his analysis was given a reception in the United States it had not otherwise received. Indeed, because of an altered context, the North American reading tended to oppose technology to nature in a way that cannot fully be justified by Ellul's own perspective on our age.