

The Ellul Forum

For the Critique of Technological Civilization

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Technique and the Illusion of Utopia

About This Issue

My apologies to all loyal subscribers for the lateness of this issue. I had originally planned for this issue to focus on human rights but a number of essays were not completed on time and so that topic is being deferred for future publication. Instead this issue's Forum will feature a very interesting analysis of the technological utopianism of modern Singapore by Lawton Lau. Professor Lau shows that Ellul's analysis of technique and the political order provides a hermeneutic for unmasking the utopian pretensions of Singapore to become the model technological city. Lawton Lau, who teaches international communications in the MBA program of the University of Illinois at Urbana, wrote his doctoral dissertation in Communications on Jacques Ellul and the city.

In addition to Professor Lau's essay, David Gill offers us an essay review of four recent books on technology. Gill walks us through the optimistic vision of Nicholas Negroponte for the future of modern technology and then on to the more critical visions of Neil Postman, Clifford Stoll and Edward Tenner.

Finally, I want to welcome the two newest members of the editorial board of the *Ellul Forum*. They are Marva Dawn of *Christians Equipped for Ministry* in Vancouver Washington and Patrick Troude-Chastenot of the University of Bordeaux in France. Marva is the editor of the recently released book of Jacques Ellul's early writings, entitled *Sources and Trajectories*, published by Eerdmans. Patrick is the author of *Lire Ellul: Introduction a l'oeuvre socio-politique de Jacques Ellul (Reading Ellul: An Introduction to the Socio-political Thought of Jacques Ellul)* published by Presses Universitaire de Bordeaux. He is also author of *Entretiens avec Jacques Ellul (Conversations with Jacques Ellul)* published by La Table Ronde. The latter will be published in English translation in the *South Florida-Rochester-Saint Louis Studies on Religion and the Social Order* series published through Scholars Press in 1998.

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Bulletin Board

Conference on "Education Technology" Held at Penn State

Joyce Hanks reports that over two hundred people attended a conference on *Education Technology: Asking the Right Questions* which was held September 17th-20th, 1997 at Penn State University. Ellul's work had a prominent place on the agenda. The proceedings will be published in book form in 1998 and details on how to secure a copy will be provided in a future issue. One outcome of the conference was the formation of a group of scholars who will be getting together to discuss Ellul's work in occasional weekend retreats. Anyone who is interested in participating should write to Richard Stivers, Department of Sociology-Anthropology, Illinois State University, Normal IL 61790-4660. Professor Stivers is receptive for suggestions as to which books should be on the agenda for future discussion.

Journal Honors the Work of Jacques Ellul

Dr. Richard A. Deitrich, Editor for the Bulletin of Science, Technology and Society published by Sage Press for the National Association for Science, Technology and Society, announces that Volume 15, numbers 2/3 is devoted to honoring the work of Jacques Ellul. Copies are available from Sage Science Press. Anyone interested should call 805-499-0721.

The issue is an outgrowth of a symposium held at the tenth annual meeting of the National Association for Science and Technology in March of 1995. The issue was edited by Willem H. Vanderburg.

The following is the relevant portion of the table of contents:

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Further Readings - compiled by Willem H. Vanderburg

The Coming of the Millennium

Good News for the Whole Human Race

by Darrell J. Fasching

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who taught me to understand that
"evangelical theology" means
"Good News for the whole
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Forum: Technique and the Illusion of Utopia

Singapore:

Technique and the Illusion of Utopia

by Lawson Lau

Introduction

Jacques Ellul refers to the efforts of mankind to make its cities more human: "The garden city. The show city. The brilliant city."¹ Nevertheless he maintains the view that cities "are still formed of iron, steel, glass, and cement...[and] of death."² Nothing "spontaneously natural" is left in them.³ The city is a product of the technological milieu. It is "an entirely artificial world" in which "technological products replace the old natural milieu in which we used to live" and it is "a milieu that is totally dead."⁴ We live in a world that is no longer natural because of "the massive intervention of techniques."⁵ Singapore of the 1970s and 1980s, under the authoritarian rule of the People's Action Party, has been referred to as "The Garden City of South-east Asia,"⁶ a reputation reminiscent of ancient Babylon. Clean, green, cleared of much of its slums and with well-flushed public toilets,⁷ Singapore deserves to be the show city of Asia. In fact, it attracts millions of tourists⁸ to its shores each year because it is "a shoppers' city."⁹ The island nation also deserves to be the technological show city of Asia,¹⁰ perhaps even of the world. Lee Kuan Yew on July 1, 1966 stresses that "it is of utmost importance that, in the field of science and technology, we should lead the field in this part of the world."¹¹ Three months later he again addressed the issue of a technological Singapore: "The place must work and it will only work on the basis of technological and industrial advance."¹² Since he made the pronouncement, the nation's efficient Changi International Airport offers millions of tourists a trouble-free entry to admire the man-made nation.¹³ "Singapore," says Lee, "is like a fine mechanism, like a chronometer and not just an ordinary watch."¹⁴ Led by Lee, PAP politician-technicians and their bureaucratic and technocratic elite have so energetically and thoroughly worked over and redesigned the city-state over the past three decades that it has emerged as the brilliant city. Lee could justifiably identify his cosmopolitan city as "the supreme achievement of man's technology."¹⁵

Singapore has so nicely fitted into Ellul's first litany of positive images that one wonders if he were writing about this South-east Asian nation. His focus, however, is on Babylon, "The City in the Bible,"¹⁶ the archetype. The city, "an essential product of technology,"¹⁷ is "the symbol of...human power."¹⁸ Singapore certainly conforms to and takes extraordinary pride

in this symbol. It imported the international corporate style of architecture and the "desire to project power cannot be mistaken: these buildings exuded a macho masculinity."¹⁹ After all, Lee Kuan Yew and the PAP Government devoutly consider themselves to be "creators and custodians of the Singapore nation."²⁰ A new god has emerged in a land of many gods.²¹ Singapore is a secular city-state wrought through technological power. This is evident in its towering waterfront, satellite housing estates, efficient international airport, mass rapid transit system. In fact, Ellul adds to its pantheon of gods: "Progress has become a key term in modern religion."²² Clifford Christians points out that Ellul's prophetic theme centers on the condemnation of "the unqualified worship of the technological enterprise."²³ Ellul's grim prophetic pronouncement therefore presents a contrasting scenario. It cautions against the economically glowing, utopia-like image of Singapore in the minds of its successful PAP politicians as well as citizens who have been reared in an austere technicized environment to see and interpret their nation and the world according to the reigning PAP politicians' eyes.²⁴ Although a mere dot on the world map, Singapore has been substantially spared the damaging winds of political and economic upheavals that have afflicted much larger countries.²⁵ It has been a politically stable and an exceptionally calm nation over the past couple of decades. It may be likened to the eye of a hurricane: an ominous and deadly calm in a world of much turbulence. This chapter explores Ellul's grave thoughts concerning the pervasive operation of technique in our contemporary technological milieu and its major product, the city, with particular reference to Singapore, and suggests that there are adequate grounds for apprehension.²⁶

Singapore's success, I contend, has come about largely through the ruling political party's unyielding employment of technique. Ellul defines *technique* as "the totality of methods rationally arrived at and having absolute efficiency (for a given stage of development) in every field of human activity."²⁷ Rationality, efficiency, and gimlet penetration into every public and private area of the Singaporean's life have characterized Lee Kuan Yew's approach to ruling the nation state. He regulates the Singaporean's life from cradle to grave. Unquestioning obedience to his dictates or decrees has its reward. He promises economic well-being if his commandments, however irksome, are timidly followed. To disobey is

often to provoke his anger, swift judgment, and inevitable punishment.

As implied, a non-monetary price tag is attached. Ellul maintains that "technique causes the state to become totalitarian, to absorb the citizen's life completely."²⁸ Technique "will not tolerate half measures"²⁹ and "has no place for the individual; the personal means nothing to it."³⁰ Arnold Pacey reinforces Ellul's viewpoints. He refers to a technocratic value system as giving rise to a "technocratic" outlook that is "single-mindedly insistent on an unambiguous view of progress, of problem-solving, and of values."³¹ The technocratic world view leaves very little room for democracy in decisions affecting technology: "An idea about choice of technique (or altered priorities, or public participation in decision making) introduces a note of uncertainty which is fundamentally unacceptable to those who take this view. To them,...there is only one logical path forward."³² This chapter discusses and comes to the conclusion that what Lee Kuan Yew has done in Singapore over three decades validates Ellul's contentions. For Lee and the PAP as well as for technique, there is only one best way in planning, implementing and working toward any particular objective. Hence at first glance the marriage between the PAP and technique appears to be a viable marriage between two powerful, compatible partners living in harmony within the confines of a technological city. No matchmaker could have done any better. After three decades of marriage, however, a majority of their offsprings are Singaporeans made soft by wealth, timid through political intimidation, mindless because Singapore is ruled, according to the PAP, by a mere two hundred people.

Technique Transcends Ideology

Ellul argues that traditional democratic doctrines are rendered obsolete by technique.³³ He regards this as a normal situation because in a technicized nation, doctrines must change when situations change. "Evolution (of doctrines)," Ellul avers, "is necessary."³⁴ Similarly, Ellul contends that propaganda "no longer obeys an ideology"³⁵ as the propagandist cannot be a believer in ideology.³⁶ Ellul contends that the propagandist is a technician who manipulates ideology, data, and psychological techniques and he eventually despises doctrines and humanity. This state of affairs arises because the objective of the propagandist or the organization using propaganda is not to disseminate a doctrine or spread an ideology. The primary purpose is "to unite within itself as many individuals as possible, to mobilize them, and to transform them into active militants in the service of an orthopraxy."³⁷ Nevertheless, the propagandist must not clash with any prevailing ideology upheld by the people. He should instead seek to use such existing ideology for his own ends.

Uncanny as it may seem, Ellul could well have Lee Kuan Yew in mind when he articulated his analysis. Lee Kuan Yew's pragmatic outlook and his stress on survival and realities work together to ensure that he is not an ideologist. Although a socialist, he is not a doctrinaire socialist.³⁸ Ellul's twin observations on the manipulation of ideology and the mobilization of individuals are mirrored in Lee's candid remarks on his position vis-a-vis ideas, concepts, ideology. Speaking to the Law Society in 1966, he says,

"I am not interested in ideas as ideas themselves, however much of an esoteric thrill these can give you by way of intellectual stimulation. I am interested in ideas in so far as they can galvanize both our society, which means you and I (*sic*), in a way which will enable us eventually to move our neighbors, or those of our neighbors who matter to us, in the right direction."³⁹

Lee Kuan Yew is not the only person in Singapore whose life does not thrive on theoretical thrills. He mirrors the outlook of the majority of Chinese Singaporeans. This in part, furnishes an explanation for Singapore's economic success story. Shee Poon Kim rightly notes that "Western democracy is an alien product to Chinese-Singaporeans, whose main preoccupation is to make money. They are content to live with a government which protects their interests, whether it be democratic or not."⁴⁰ Except for those Chinese-educated Chinese who were momentarily captivated by Marxist ideology, Singaporean Chinese have shown far more concern over protecting their rice bowl than caring about the contents of their ideological bucket. They regard the breaking of their rice bowl as tragic whereas anyone could kick their ideological bucket for all they care. Lee Kuan Yew understands and reflects the Singaporean Chinese culture in his ideological pronouncements.

Democratic doctrines are also liberally interpreted. Lee Kuan Yew believes, in parliamentary democracy and its basic tenet, the one-man-one-vote principle. Nevertheless he also believes that "Western-type parliamentary democracy may have to be adjusted to fit the needs and requirements of Asian peoples."⁴¹ Lee displays his political astuteness and manipulative inclinations in his ambiguous pronouncement. His judgment appears at first glance to be most reasonable. It is designed to leave no room for disagreement. It would be foolhardy for any Singaporean politician or academic to argue against Lee's assertion that Western ideology or practices should not be imported without modification into an Asian nation. On the other hand, if a Westerner argues for it, he could be easily accused of being imperialistic and insensitive to nations and cultures toward which he has but substandard knowledge. Lee's equivocal contention is then a checkmate in the political game.

What, however, does Lee Kuan Yew really mean? He is a firm believer of the one-man-one-vote principle when Singaporeans vote overwhelmingly for the PAP. The principle then becomes a vindication of the PAP's legislation, policies, programs, and detention without trial of dissenters. It authorizes the PAP to pursue its reign with a resounding mandate heard, it is hoped, around the world. Foreign investments would then pour into Singapore because of its political stability. On the other hand, Lee expresses melancholic uncertainty over the sanity of believing in such a Western concept as one-man-one-vote when a substantial number of Singaporeans vote against the PAP.⁴² Lee Kuan Yew is a realist who prefers good news and bristles with anger over bad news. No ideology or doctrine is sacrosanct.

At another level within the nation, the PAP Government's owns (either wholly or partially) hundreds of companies ranging from manufacturing to hotels, shipbuilding to housing, finance to transport. This situation has brought about the "distress of those who prefer either a free-for-all *laissez faire* situation—like that in Hongkong—or a complete socialist system like that in China."⁴³

Ideology and ideas as may be expected, are not the only theoretical constructs that often suffer a quick demise within the nation Lee Kuan Yew built. Principles undergo a similar fate. An interpretive history of PAP ideology is necessary if some understanding of its past, present, and possibly future policies and actions are to be better understood. The democratic socialist element of the PAP was conceived and born in a web of chicanery. Unlike their communist comrades who were motivated by ideology, the non-communist element in the PAP led by Lee Kuan Yew did not abide by too many principles during its formative years. In order to earn British confidence on the one hand and to retain the working support of communist sympathizers on the other, the PAP had to do that which is expedient and efficacious rather than abide by any doctrine. This has resulted, says Thomas Bellows, "in a PAP doctrinal tradition of flexibility and/or, a term more favored by its opponents, 'opportunism.'"⁴⁴

Economic ventures, including trading, certainly fall within *la technique's* "every field of human activity." They clearly transcend ideology and principles in the case of the PAP. On the Vietnamese refugee problem, popularly known as "the Vietnamese Boat People," Minister for Foreign Affairs S. Rajaratnam rightly excoriated the Vietnamese government over its inhuman treatment of the ethnically Chinese Vietnamese. They were sent out of Vietnam in "floating coffins."⁴⁵ He noted that the Vietnamese government's deliberate policy of sending out their Boat People on "so monumental a scale...is better than (Hitler's) gas chambers." He says, "The Vietnamese move them into the open sea. It cost them nothing and they get money for the boats."⁴⁶ While Rajaratnam lashed out so eloquently and vociferously in public for the media's benefit at the watery holocaust perpetrated by Vietnam, Singapore quietly and privately continued its lucrative trade with the villainous Vietnam. Hence, while the Vietnamese Boat People drifted southward in their "floating coffins," a steady stream of exports was steered resolutely northwards to Vietnam. The exports, in fact, actually increased with the war of words⁴⁷: 1976 (S\$39 million); 1977 (S\$63 million); 1978 (S\$91 million); 1979 (S\$109 million); and reached a peak in 1985 of S\$284 million.⁴⁸

On the one hand, such an action seemed excessively unprincipled. If the PAP were so concerned over the deaths of hundreds of thousands of Chinese Vietnamese (as it seems to be, and Singapore is seventy-six percent Chinese), then it would be consistent of the PAP if it were to stop trading with such a despicable and unconscionable nation. PAP words, however, did not match PAP action. On the other hand, it is a most glaring contradiction in the PAP's adamant and vociferous ideological stand against communism.⁴⁹ Accommodation of such blatant incongruities at such a fundamental level may be made through an understanding of Lee Kuan Yew's pragmatic outlook or, more pertinently, his acquiescence to the dictates of tyrannical technique. The god of economic progress is willing to trade with the devil himself.

Trial by Jury an Inefficient Method

Contemporary man, engulfed by the technological state, "needs the conviction that his government is not only efficient but just."⁵⁰ Current political doctrine in a government that operates on the basis of technical necessities as such functions

as a "rationalizing mechanism for justifying the state and its actions."⁵¹ One formidable institution that could justify state actions is the judiciary. Ellul regrets, however, that "efficiency is a fact and justice a slogan."⁵²

A *laissez faire* economic approach that smacked of inefficiency and a lack of centralization was not the only British practice to be ditched by the PAP Government. Trial by jury suffered a similar fate. In its initial move, soon after it gained power in 1959, the Legislative Assembly passed a bill proposed by the PAP Government that limited trial by jury to capital offenses, or where the Yang di-Pertuan Negara granted his consent.⁵³ Then came the PAP's electoral victory in 1968 where not a single opposition member was elected. It is a victory which "marked a potentially dangerous voluntary abdication of power by the electorate into the hands of one political group, threatening the isolation of government and encouraging an arrogance of power."⁵⁴ This power was exercised the following year when the PAP Government abolished "trials by jury with a court consisting of three High Court judges."⁵⁵ A British institution of more than a century was put to death some ten years after the PAP acquired power. Chan Heng Chee notes that the PAP Government was dissatisfied over "what it saw as frequent acquittals of persons even where evidence of guilt was ample." Not surprisingly, the PAP Government concluded that "laymen could not be relied upon for the administration of justice."⁵⁶ Only the judicial elite could administer justice. Protests from the Bar Council, and in particular from David Marshall, fell on deaf PAP ears. They were, however, expected to be deaf. More ominously, the protests fell on deaf Singaporean ears. On the one hand, the vast majority of Singaporeans were culturally not used to hearing debates about esoteric issues like justice and therefore failed to comprehend its relevance. On the other hand, the PAP Government's propaganda machine has placed high-quality technological earplugs on them.

Ellul distinguishes between justice and judicial technique. Justice has an elusive or unpredictable element; it is not a thing which can be grasped or fixed. He states, "If one pursues genuine justice (and not some automatism or egalitarianism), one never knows where one will end."⁵⁷ He adds that justice, moreover, does not function to serve the state. It is not only independent of the state, it even claims the right to judge the state. This situation is permitted to exist only where the power of the state is limited or its jurists are not exclusively technical rationalists who champion efficient results. Judicial technique does not flourish under conditions where it cannot function rationally.

In contrast, the technician of the law views all law as depending on efficiency. Application of the law is the technician's sole concern. Such application "no longer arises from popular adhesion to it but from the complex of mechanisms which, by means of artifice and reason, adjust behavior to rule."⁵⁸ Ellul presents two aspects of the technical creation of the law. First, the judicial element is separated from the law. The problem of justice is no longer its concern; it is commissioned to apply the law, not judge the law. It is not concerned with pursuing justice; its chief responsibility is the mechanical application of the laws. It is not a guardian of justice but an inflexible defender of bureaucratic detail. Ellul therefore says that the role is best fulfilled by a technician rather than a philosopher or a person with a sense of justice. A judge seeking

true justice within such a state in fact comes to grief. He faces demotion or is assigned to a desk job where he cannot administer justice in the courts. As for the technician of the law, all he needs is an understanding of the principles of the technique, the rules of interpretation, the legal terminology, and the ways of deducing consequences and finding solutions. He contends that "judicial technique implies that bureaucracy cannot be burdened any longer with justice" and that "law ensures order instead of justice."⁵⁹ A judge who understands this state of affairs in a technological system and is willing to abide by it is assured of promotion within the system.

Ellul states that the technician "dreads above all else the arbitrary, the personal, and the fortuitous."⁶⁰ He continues:

The technician is the great enemy of chance; he finds the personal element insupportable. For that reason he finds it advisable to enclose the judge or the administrator in a tighter and tighter technical network, more and more hedged about with legal prescriptions, in such a way that the citizen will understand exactly where he is heading and just what consequences are to be expected.⁶¹

Lee Kuan Yew takes no chances with chance. Nothing, it would appear, is impossible in the technological city he has built.

Another troubling dimension of the Singapore judicial system surfaced during the slander trial against opposition Worker's Party leader J.B. Jeyaretnam. Keeping his promise to pursue any and all defamatory remarks made against him,⁶² Lee Kuan Yew sued Jeyaretnam for slander over comments the latter made in an election rally in August 1988. Jeyaretnam's statements (a policeman testified that he was instructed to tape the opposition's election rallies⁶³) concerned the suicide of PAP politician Teh Cheang Wan, the minister of national development at the time of his death on December 14, 1986. Teh was subsequently found to be guilty of accepting bribes. Lee Kuan Yew claimed that Jeyaretnam's remarks implied that he was instrumental in persuading Teh to commit suicide so that a full investigation into allegations of corruption might be avoided. Jeyaretnam denied this charge. He said he was merely questioning the PAP Government's claim of being honest and open. Teh had written a letter to Lee Kuan Yew the day before his death apologizing for his actions and ended with, "I would accept any decision which you may want to make."⁶⁴ He then took an overdose of Amytal, a drug not available over the counter.⁶⁵

A significant feature of Prime Minister Lee Kuan Yew's case against Jeyaretnam arose when the trial began on July 2, 1990

with the defense asking the presiding judge, Lai Kew Chai, to disqualify himself from hearing the case because he had found Jeyaretnam guilty of fraud in 1986, the original conviction that led to him losing his parliamentary seat and his right to practice law.

The defense also drew attention to the fact that Lai had once worked for Lee & Lee, a firm founded by the prime minister. Even Lee's counsel was prepared to get another judge, but Lai ruled that he would hear the case, saying: "No right-thinking people will think

and go away thinking that I will be biased in this case."⁶⁶

Beyond the webs spun by Lee Kuan Yew and the PAP Government, another remarkably elaborate and intricate web of relationships exists in a small state like Singapore. These relationships extend far beyond blood ties. They expand and lengthen to include business bonds, old boys' connections, plaintiff-judge links. To the uninitiated, this is but an invisible web. To the well-informed, it is a formidable web. To the well-connected, it presents many an opportunity to "pull strings."⁶⁷ To the unconnected, they have to be careful how they fly if they wish to continue to soar in Singapore skies. There is obviously a danger of being treated like a fly. Surely a reasonable doubt will arise in the minds of right-thinking people concerning the judgments of judges who are part of the web.⁶⁸

Trial by jury was unceremoniously put on trial. It was first convicted of inefficiency and then sentenced to death in a court where Lee Kuan Yew was both judge and jury. He then leaves others to execute the final and somewhat less cerebral component of the judicial process. The technological city of Singapore has no place for inefficient citizens in its system of justice. Inefficiency means that those who are accused by the state of robbing the nation of its political stability are not punished the way the PAP Government deems appropriate. Now, a rather well-connected and well-informed judiciary which forms part of the Singapore elite executes PAP legislation. Justice is one of the PAP's slogans. In its relentless pursuit of efficiency, Ellul's contention that justice may well have truly become a slogan has merit.

One Language, One People

Civilizations have developed differently in the past, according to regions, nations, and continents. "Today," says Ellul, "all peoples follow the same road and the same impulse" as many non-Western nations have come to embrace Western technique."⁶⁹ While these countries are not at the same point in their industrial or technological development, they are located at various points along the same trajectory. As a result of this uniformity he consequently maintains that "technique is the destroyer of social groups, of communities (whatever their kind), and of human relations."⁷⁰ The homogenizing tendency of technique has a significant impact on pluralism. It often eliminates it. This effect is becoming evident in Singapore in at least one sphere as the PAP Government works hard to eliminate the dialects spoken by Chinese Singaporeans.

Singapore before the coming of the PAP was a plural society. Besides the Europeans, three major ethnic groups flourished in the British colony, namely, the Chinese, Malays, and Indians. Each group had its distinctive culture and sub-cultures.⁷¹ Since the PAP came to power in 1959, however, "extensive de-pluralization has begun either consciously engineered by the government or evolved unplanned."⁷² The former is easy to document; the latter taxes one's credibility.

Language, in a multi-lingual society, is often a sensitive issue. It has explosive potentials if one ethnic group attempts to promote its language to the exclusion of the others. This situation could be further complicated in a colonial setting, especially if the colonial power is on the decline. Elected into the Legislative Assembly and wearing the undersized shoes of an opposition member, Lee Kuan Yew spoke adamantly against the policy of the fledgling Singapore government's

encouragement to use the English language in education in an era when Singapore's school system was still multi-lingual in nature. Addressing the Legislative Assembly on April 12, 1956 he said that it was appropriate that someone like him who was English-educated should oppose the policy. He explained that every time he spoke the English language

there is a sense—I would not say of humiliation—but definitely of inadequacy, that I have not the same facility and control over my own language. That is something you must understand, or you will not understand what is happening in Asia.... I was sent to an English school to equip me for an English university in order that I could then be an educated man—the equal of any Englishman—the model of perfection! I do not know how far they have succeeded in that.... When I read Nehru—and I read a lot of Nehru—I understood him when he said: 'I cry when I think that I cannot speak my own mother tongue as well as I can speak the English language.' I am a less emotional man. I do not usually cry, or tear my hair, or tear paper, or tear my shirt off, but that does not mean that I feel any the less strongly about it. My son is not going to an English school.... I hope, of course, that he will know enough English to converse with his father on matters other than the weather.⁷³

Lee Kuan Yew has used Nehru's sentiment to great advantage. It all sounds so eminently reasonable. Counter arguments would not be advisable in a period when nationalist emotions and anti-colonialist feelings were riding high. Robert Gamer, however, notes that Lee Kuan Yew "has always used the public platform as an effective means of exposing his enemies' unreasonableness."⁷⁴ Gamer's use of the term "enemies" has to be defined broadly. In this instance, he was referring, in part, to a Singapore Chinese Chamber of Commerce's request. He writes that on October 2, 1965, "with a bitterly worded, heavily publicized statement, he [Lee Kuan Yew] indicated to the Chinese Chamber of Commerce, which had asked that Chinese be an official language, that he has no truck with those who "assume heroic postures on behalf of the Chinese language."⁷⁵ The Chinese Chamber of Commerce erred.⁷⁶ It should have written the letter to Lee Kuan Yew ten years ago when he had waxed so eloquently in support of his mother tongue—except that he was then a minority voice in the Legislative Assembly.

The Chinese language issue illustrates the contention that diversity dies a despondent death at the hands of technique, a homogenizing agent of tyrannical proportions. Chinese immigrants who settled in Singapore had come from southern China and had brought with them a rich diversity of as many as twelve Chinese dialects. Each Chinese dialect may be as different as unrelated languages and each has its own store of aphorisms, and each dialect group even has its distinctive customs and multifaceted ways of cooking. Twenty years after the PAP Government assumed control of Singapore these dialects still flourished. Lee Kuan Yew, however, pronounced the inefficiency of maintaining such dialects. At the opening ceremony of the "Promote the Use of Mandarin" Campaign on September 7, 1979, he referred to surveys conducted a few months earlier on the languages spoken on the buses and in the hawker centers. He notes that the surveys,

disclose how widespread and dominant dialects are. Nevertheless, *within five years*, once parents have

decided that their children's learning load must be lessened by dropping dialect and concentrating on English-Mandarin, we can dramatically alter the language environment. Students will hear and speak Mandarin in the streets, on the buses, in the shops, in the hawkers centres. If, however, the majority of parents secretly believe they can have English-Mandarin plus dialect for their children, then administrative action will not be wholly successful because administrative action cannot reach the home where dialects, already entrenched, will prevail.⁷⁷

Chinese dialects, freely used in China for centuries and in Singapore ever since its founding and left to develop undisturbed by the British, Japanese, and Malaysians were, under Lee Kuan Yew, to wither, if not meet their end. As he ominously pronounced, the language environment was to undergo dramatic alteration "within five years." Singapore has been called "Instant Asia." One more "instant" may now be added for this is an instance of instant language.

Technique operates at a rational level, and Lee Kuan Yew often projects the image that he is more than rational and pragmatic. He couched the language issue in terms of the English-Mandarin or English dialect dilemma for Chinese Singaporean students. He points out that English-educated Chinese children speak a Chinese dialect in their home whereas they learn English and Mandarin in school. The results of twenty years of bilingual teaching showed that not more than twelve percent of students could cope with English, and two Chinese dialects. Hence the majority spoke English and their parents' Chinese dialect. What Lee considered appalling was that even those who showed proficiency in Mandarin after twelve years of bilingual schooling lose their fluency when they attended overseas universities. He was also dissatisfied with the thought that if the use of dialects was left uncontrolled by the PAP Government, English would become the common language between Chinese of different dialects.⁷⁸

In making the use of Chinese dialects an issue⁷⁹ that was virtually non-existent until then⁸⁰, Lee Kuan Yew cleverly fingered the Chinese parents and placed the burden of change on them. What he failed to articulate, for expedient reasons, was that Chinese students spoke dialect in their home because their mothers and fathers had a particular subcultural and linguistic heritage. It wasn't that parents wished to subject their children to a linguistic nightmare. They were giving voice to that legacy of a diverse heritage, of particular regional ancestral roots for China is not as small a small country as Singapore. Efficiency, however, is passionless and has little patience with legacies that it considers outmoded or inefficient. Lee Kuan Yew argued from a common sense standpoint that the daily use of Mandarin gave fluency. Hence, if parents "allow, or worse want, their children to speak dialects, then their children will find their work in school very burdensome."⁸¹ Hence the alternative: "actively encourage your children to speak Mandarin in place of dialect."⁸² He knew the audience he was addressing and he knew how to manipulate it. Chinese parents hold the earning of good grades in school in very high regard for top grades mean top schools, fat salaries, high socio-economic status. An appeal to ensure that their children obtain good results is one that will not go unheeded. The unspoken sacrifice on the altar of the God of Good Grades would be great. It would mean death to the family dialect.⁸³ Yet many Chinese parents continue to be willing to

sacrifice for their children who in turn are to look after them in their old age.

Since educating non-Mandarin-speaking parents to speak Mandarin would pose a problem, Lee Kuan Yew argued that if they could speak dialect, it was not difficult to speak Mandarin. Many Chinese government workers and those who needed a government license to work also speak dialect. Nevertheless since the PAP Government has control over their livelihood, the treatment was to be different for these other categories of Singaporeans. He says:

Once it is clear to the government that parents want their children to learn and to use Mandarin, not dialects, the government will take administrative action to support their decision. All government officers, including those in hospitals and clinics, and especially those in manning counters, will be instructed to speak Mandarin except to the old, those over sixty. All Chinese taxi-drivers, bus conductors, and hawkers, can and will be required to pass an oral Mandarin test, or to attend Mandarin classes to make them adequate and competent to understand and speak Mandarin to their customers.⁸⁴

It does not take much imagination to realize that a sizable proportion of those parents belong to one of the above categories of government employees or in occupations that are licensed by the PAP Government. Lee Kuan Yew concludes, "This is the stark choice—English-Mandarin, or English-dialect. Logically, the decision is obvious. Emotionally, the choice is painful."⁸⁵ Emotion, however, within the PAP Government's scheme of things is a commodity that is of no economic consequence and to be discarded like a filthy rag. Hence, even non-Mandarin-speaking Chinese over sixty, so nicely, piously, and what appeared to be so thoughtfully spared from having to speak Mandarin in their encounters with government employees by an apparently sensitive prime minister, were not spared linguistic pain in the closing days of their lives. Popular television and radio programs in Teochew, Hokkien, Cantonese or some other Chinese dialect were dubbed in Mandarin on orders from the PAP Government. There was no special, sentimental or Confucian provision for the elderly, those over sixty. They were to end their days in their homeland deprived by their own Chinese-dominated government of their own mother tongue. When Lee Kuan Yew spoke of dramatically altering the language environment, he was not really waiting for the decision of parents. It was merely political rhetoric. Nor was he speaking of anything other than total transformation. What was distinctively and uniquely Singaporean—the rich diversity of Chinese dialects⁸⁶ and their individual store of wisdom concentrated in a small island nation—is "within five years." Lee Kuan Yew and the principle of technique do not grant longevity to diversity. The PAP Government is moreover unlikely to mourn its premature death through the erection of a tombstone to mark its burial. If anything, it will celebrate its death with Chinese tea.

One Party, One Power, One Provider of Security

The technological milieu has built a new altar at which humanity may worship. "Progress," says Ellul, "has become a key term in modern religion."⁸⁷ It is a secular god that demands total veneration from its devotees. Accepting what

technological progress makes possible and necessary does not lead to a triumph of freedom. On the contrary it means the "triumph of bondage" and we become "slaves of progress."⁸⁸ He regrets that the "mad passion for progress stays with us, though we can already taste the bitterness of its fruits."⁸⁹ Ellul, however, holds the view that progress is a false god. He refers to "false gods" as "the kind we set up as guardians over our lives."⁹⁰ In very many ways the PAP Government has attempted to be the guardian of the nations⁹¹ in its relentless drive to be the one party, the one power, and the one provider of security for those Singaporeans who would worship it, in part, at the ballot box.

Removing all existing potential opposition to its autocratic rule is only one of the PAP Government's basic objectives. An even more fundamental task of the PAP ever since it came into power has been to ensure that no organization, however puny, could grow to challenge its power. Whether it is a political organization or otherwise is immaterial to the PAP. Power structures are in-built into all organizations and a PAP ambition is to attack all organized structures so that it will emerge as the party in which all power of any national consequence resides. Of equal import, a PAP's aim may be said to be its desire to project itself as the nation's breadwinner. Being the sole provider of economic security for every family enhances its sense of self-importance and indispensability. It gives it an aura of fatherly omnipotence. The significance of this role is heightened in a nation where filial piety is practiced by the dominant culture. In order to achieve this objective the PAP Government has either to destroy all existing organizational providers of security or to ensure that they remain anemic. An even more foundational approach by the PAP Government is to ensure that an organization—local or foreign—seeking incorporation in Singapore does not get authorization to incorporate if there is even the faintest hint that it could pose any manner of threat to the PAP Government.

Given such an understanding, one of the functions of an organization like the People's Association is that it is not only to strengthen PAP control over local community life, but also to "reduce the influence of the many non-government bodies which evolved during colonial times to provide social, economic, or cultural security to the population."⁹² Established in 1960 and directly controlled by Lee Kuan Yew as chairman, the People's Association was used as a political and social tool to counter "the great political influence wielded by Chinese guilds, clan associations, old boys' associations, and Chinese middle school unions."⁹³ Lee Kuan Yew's desire to reduce the influence of these organizations or "brokers" is implied when he referred to them in a speech on April 25, 1960:

In the past, the Government was something distinct and separate. The people and their activities were one entity on the ground, and the Government and the administration were something separate, over and above, giving orders downwards. In between were the "brokers" who acted as middlemen between the Government and the people. These were the committees of social, cultural, clan and other organizations acting as buffers between the colonial administrators and the people, making requests to the Government, with Government either responding to or rejecting these requests. In the past, dissatisfaction first grew on the ground, and when the people were acutely discontented they went to cultural organizations or clan associations who acted as "brokers",

representing the people in the area and making representations to the Government....

It is necessary to keep in constant touch with the people, not only to know what their grievances are, but also to conduct and organize them and inculcate in them social qualities which will be useful in the building up of our society. In the present phase of political development it will be easier to do this at a non-Government level. For this reason we have decided to set up the People's Association.⁹⁴

Lee Kuan Yew's apparent intent is to bypass these "brokers" with the implication that under the new regime (by virtue of its being national) does not need such brokers. The PAP Government moreover seemed to desire direct contact with the people. It appears to be a magnanimous or salutary gesture on the part of the PAP Government. A much more plausible objective is to emasculate if not eradicate the residual powers of these organizations so that there will be only one power and provider of security in the nation. All persons in need of help would have to seek out the PAP Government and its ever-growing and ever-encroaching structures. It removes all secondary crutches that a person could look for when in trouble. At the communication level, the PAP Government does not want "opinion leaders" in such non-governmental organizations to interpret government policy. It wants to monopolize this interpretive function so that only the authorized version of its commandments is transmitted. It could also discredit any other interpreter. Such a course of action is effective in removing a source of potential impediment to the PAP Government's manipulation of the people.

Traditional religion is moreover secularized. John Clammer stresses that "as religion retreats further and further from attempting to assert its definition of reality, so the secular view is allowed to prevail."⁹⁵ He maintains that the effects of secularization are subtle. This is because religion in Singapore has flourished in the climate of religious pluralism. He contends that a major effect of secularization is that "many individuals of a religious persuasion are actually indistinguishable in most respects from their non-religious neighbors" because "they in practice allow the secular world to define the worldview that they largely share—and to set its priorities as being the 'real' ones, and these priorities, as it so happens, are mainly materialistic ones."⁹⁶ The PAP Government, as provider of security, has usurped a function that used to be that furnished by religion. What is tragic is that this usurpation has been accepted by docile religious leaders who should know better than their non-religious counterparts.

In the technological city, however, the greatest religious power is the ruling government. Hence the PAP, as creator of independent Singapore, has made a significant effort to usurp this very function. As Thomas Bellows rightly observes of the situation in the mid- to late- 1960s, "In recent years, Singaporeans have increasingly come to regard their government as the institution in society most responsible for their material well-being."⁹⁷ Even millionaires, according to Lee Kuan Yew, have a strong stake in ensuring that the PAP Government remains a provider of economic security. In a speech on January 2, 1965, he says, "You can be the world's biggest millionaire. But if the country collapses you are in trouble."⁹⁸ The twin emphasis on the fragility of wealth and of the nation is not

without purpose. It requires obedience or acquiescence from the people and the concomitant exercise of ever-increasing authority on the part of the PAP Government to safeguard the accumulation of wealth. It is a situation where one sells one's democratic birthright for a bowl of rice. Or, many bowls, some would argue.

The PAP Government, however, is not a faceless institution. At its head is Lee Kuan Yew. A PAP politician told Raj Vasil that "it is one-man-rule in Singapore. All power and decision-making is concentrated in the hands of the Prime Minister. He is supreme and he calls all the shots." The politician elaborates: "The normal checks on executive power which operate in parliamentary democracies do not exist in Singapore. The institutions exist, such as the Parliament and the party, but they exercise little control over the Prime Minister."⁹⁹

The confidence of PAP politicians in Lee Kuan Yew would seem to be practically absolute. One senior-ranking second-generation PAP politician says, "I am Minister of... In the night when I sleep, I sleep well knowing that if something goes terribly wrong, the Prime Minister is there to take care of the situation. Surely if something goes wrong my head would get chopped, but no harm would come to Singapore as the Prime Minister is bound to take necessary action to save the situation. This same feeling is held by other ministers of the second generation."¹⁰⁰ Vasil observes that Lee Kuan Yew "is acknowledged as the embodiment of the party and the government and the person who provides and sustains the credibility of the government as a performer." He adds that Lee Kuan Yew is "the creator of modern Singapore."¹⁰¹ These PAP politicians have been well trained to look upon themselves as nothing and the creator of Singapore as everything. The creator is all knowing and all powerful, and he demands sacrifices of freedom and privacy as well as human sacrifices when the occasion warrants it. Until they rebel, those closest to him are the very ones most obedient to the creator.

Summary

In a speech at the White House on October 17, 1967 during Lyndon Johnson's presidency, Lee Kuan Yew expresses this striking sentiment: "We in Singapore, like others, want to build this brave new world of modern science and technology, and the great life that they can provide when these disciplines are applied to industry."¹⁰² If Huxley, who featured Singapore in his *Brave New World*, could see the nation now, he would possibly not be too taken aback that his brave new world is beginning to take recognizable shape in Singapore.

The PAP, under the leadership of Lee Kuan Yew, has so wholeheartedly clasped the principle of *la technique* to its bosom that their entering into wedlock is apparently not a too ill-advised enterprise. It is a union that explains with lucidity a multiplicity of policies and events brought about by the PAP Government over the last three decades of life in Singapore. Their alliance has predictably led to a drastic curtailment or elimination of anything, including humans, that hinders the efficient operation of technique. The outcome is faceless conformity, sterility, stability. On the other hand, it has also predictably brought about a super-abundance of economic fruits. Selective perception sets in and many Singaporeans readily and zealously grant permission for wealth and its acquisition to domineer over and demean all the other off-

springs of the union. The continued harvest of economic products in turn justifies and consequently removes from the minds of a majority of people the initial apprehensions over their joining together. The anti-technological and therefore troublesome conscience is put to sleep.

Singapore's current opulence and intensified regimentation could be taken as indications that total technicization has taken place in Singapore after thirty years of partnership between the PAP and *la technique*. Ellul defines total technicization as occurring "when every aspect of human life is subjected to control and manipulation, to experimentation and observation, so that a demonstrable efficiency is achieved everywhere."¹⁰³ Ominous-looking cameras are mounted at major traffic junctions to electronically capture the violators at the very instant of committing the offence,¹⁰⁴; hidden cameras are placed in elevators to record in graphic detail persons who use them as latrines: humans are surreptitiously stationed in toilets, all primed to issue court summonses for other humans who fail to flush after use.¹⁰⁵ From minute details to courtship and size of family, the level of observation, control, and manipulation goes to enormous (some would say preposterous) lengths.

Although it is not exactly a holy matrimony—more an unholy union of convenience—divorce, however, is highly problematic. *La technique* has brought about the technological system. Ellul states that it is a system that cannot be detechnicized. This is so because of the control exercised by autonomous technology which Ellul explains thus:

technology ultimately depends only on itself, it maps its own route, it is a prime and not a secondary factor, it must be regarded as an "organism" tending toward closure and self-determination: it is an end in itself. Autonomy is the very condition of technological development.¹⁰⁶

In this understanding, it is a marriage in which the partners are unequally matched. It is commonly believed that the PAP and Lee Kuan Yew are in control. This is not the case. Technique proves to be the boss in the relationship. Even Lee Kuan Yew is not in a position to bargain with technique. Ellul stresses the preeminence of technique in all arenas of action, including the political. He argues that it is still not fully appreciated that the embrace of technique "means control over all the persons involved, all the powers, all the decisions and changes, and that technology imposes its own law on the different social organizations, disturbing fundamentally what is thought to be permanent (e. g., the family), and making politics futile."¹⁰⁷ He dismisses the idea that politicians make the decisions. Politicians, he contends "can decide only what is technologically feasible."¹⁰⁸ In a Singapore that desires and strives for world-class economic prosperity, no decisions can be made that run contrary to technological growth. Hence only that which is technologically productive is to be pursued. All political decisions are, in reality, dictated by technology. Although credit is lavished on Lee Kuan Yew and his cohorts for bringing about the Singapore economic miracle, Ellul asseverates that the system that is set up is "not built through whim or personal ambition."¹⁰⁹ There is only a semblance or illusion of political control. It is because of the supremacy of technique over the PAP that the latter's many "good" intentions to relax the rigidity of its regulations come to nought. It can only continue

to regulate in ever tighter circles—precisely what it is currently doing in spite of promises to be more flexible.

Singapore is a garden city, a show city, a brilliant city, but it is no utopia. It is not the Garden of Eden. It is a technological city built on secular foundations. It does not, however, put a spanner in Lee Kuan Yew's words and works. As he so lucidly pronounces at the Political Study Centre on July 13, 1966, "What is required is a rugged, resolute, highly trained, highly disciplined community. Create such a community and you will survive and prosper here for thousands of years."¹¹⁰ Either Lee suffers from delusions or tiny Singapore will not only survive but prosper for "thousands of years" come what may. Just a few years ago, Lee had sought merger with Malaysia because Singapore could not survive on its own. Be that as it may, Lee has certain thoughts in mind when he evokes the image of "a rugged, resolute, highly trained, highly disciplined community." Distanced from a natural and social environment, placed in a technological environment and fed upon a diet of technical means, the outcome is the production of a rugged, resolute, highly trained, highly disciplined, highly mechanized people. They are to be distinguished from robots. The latter are mechanical objects invented by humanity's imagination; however advanced their "artificial intelligence" they are truly things. They are the "its" of this world. Lee fondly refers to them as "digits."¹¹¹ The former may be considered to be more than "its." After all, they are humans. Nevertheless they are humans who have either voluntarily or were coerced to invite *la technique* into their hearts and lives. In so doing, they have set in inexorable motion an autonomous creature that has the in-built power to take over all control in the political, social, cultural, religious arenas. Technique's power, however, touches humanity itself. Technique is such that it transforms its unsuspecting humans into the "its" of the world. They are people without a soul but they certainly do survive and prosper economically. They become technique's robots.

Notes

1 *The Meaning of the City*, trans. Dennis Pardee, intro. John Wilkinson (Grand Rapids: William B. Eerdmans, 1970), p. 57.

2 *Ibid.*

3 Jacques Ellul, *The Technological System*, trans. Joachim Neugroschel (New York: Continuum Publishing Corporation, 1980), p. 39.

4 Jacques Ellul, *Perspectives on Our Age*, ed. William H. Vanderburg, trans. Joachim Neugroschel (New York: Seabury Press, 1981), p. 59.

5 Jacques Ellul, "Technique, Institutions, and Awareness," in *The American Behavioral Scientist*, July/August 1968, p. 38.

6 Planting trees along roads started as far back as 1881. It is, however, Lee Kuan Yew who is given the credit for inaugurating Singapore's tree-planting campaign in 1963. Stephen Yeh notes that it led to a "beautification programme" in 1967 ["The Idea of the Garden City" in *Management of Success: The Moulding of Modern Singapore*, ed. Kernial Singh Sandhu and Paul Wheatley (Singapore: Institute of Southeast Asian Studies, 1989), pp. 813-832]. He states that there has been "an intensive programme to camouflage concrete structures with plants to soften their harshness."

7 A reflection of the priorities of the government-controlled private press in Singapore, two news stories vied for prominence on page one of the June 23, 1989 issue of *The Straits Times*. One was "China Executes Seven More Protesters." This outcome of the Tianamen Square pro-democracy movement was juxtaposed with a Singapore news item on the flushing of public toilets: "Fine for those who do not flush public toilet from next month." N. Balakrishnan notes the "latest plank in the [PAP] government's campaign to punish those of its population who have not been properly housetrained." Those who violate the new law risk a fine of up to \$1,000 (US\$510). Enforcement would be carried out by a "crack battalion of inspectors from Singapore's Ministry of Environment...[who]...will be roving public toilets in pursuit of the aberrant non-flushers" (*Far Eastern Economic Review*, August 3, 1989, p. 33).

8 In 1990 Singapore welcomed its five millionth visitor on December 10 (*Singapore Bulletin*, January 1991, p. 11).

9 Peter C.N. Hardstone, "State Viability and the Size Factor: The Singapore Case," Seminar Report Series No. 2, October 1977. Singapore: Nanyang University, 1977. An island nation that lacks spectacular natural scenery and cultural-historical sites, Singapore makes up for it through catering to humanity's appetite for bargain hunting and shopping.

10 Singapore's National Exhibition (November 16-December 16, 1984) at its World Trade Centre, in fact, was referred to as "the showcase of Singapore history" (*Mirror*, November 15, 1984, p. 1).

11 Alex Josey, *Lee Kuan Yew* (Singapore: Donald Moore Press, 1968), p. 484. Lee spoke at the opening of the new Science Tower at the then University of Singapore. He emphasized the need to "exploit" Singapore's "human resources" and "exploit" the nation's strategic geographical location to maximum advantage. The Singapore story over the past three decades is a tale of precisely such unwavering PAP exploitation.

12 *The Mirror*, October 31, 1966, p. 8.

13 Lee in his 1989 National Day message notes that *Business Traveller*, *Travel Trade Gazette Asia*, and *Pata Travel News (Asia/Pacific)* put Changi International Airport as the world's best airport. *Executive Travel* puts it as the world's second best. *Euro-money* put Changi as the most efficient for luggage retrieval and second best for passport control and immigration (*Singapore Bulletin*, September 1989, p. 1).

14 Raj Vasil, *Governing Singapore: Interviews with the New Leaders* rev. ed. (Singapore: Times Books International, 1988), p. 244. First published by Eastern Universities Press, 1984.

15 Jacques Ellul, "The Mirror of These Ten Years," *Christian Century*, 87 (18 February 1970), p. 201. As S. Rajaratnam, then minister for foreign affairs, says, "In a way Singapore is a country whose environment is almost wholly man-made. A hundred and fifty years ago Singapore was no more than a small fishing village. Its few hundred peoples no doubt lived closed (*sic*) to Nature and as Nature dictated. Today's Singapore owes little to Nature. Its roads, its concrete buildings, its harbours and almost all its landscape were reshaped, created and moulded by the brawn and brain of our people" (*The Mirror*, November 7, 1966, p. 1).

16 *The Meaning of the City*, p. 48. Ellul maintains that the great city is "a military phenomenon" and "inseparably connected with money" (p. 51). Amassing wealth and the quest for profit are distinctive marks of the city. Singapore is no exception. On the contrary, the PAP has designed it for such pecuniary purposes.

17 *The Technological System*, p. 39.

18 *The Meaning of the City*, p. 48.

19 Tay Kheng Soon, "The Architecture of Rapid Transformation" in *Management of Success: The Moulding of Modern Singapore*, p. 866. Tay observes that the effort to globalize the Singapore economy and the adoption of the "global city" concept in 1970-1980 led to the coveting of up-to-date symbols of progress and modernity that the international corporate style of architecture conveniently provided. He refers to the "gigantism in the expression" of Shenton Way buildings, the heart of Singapore's financial district. There is nothing "eastern" or "Asian" in Singapore's waterfront. It could be the waterfront of any Western nation.

20 Vasil, *Governing Singapore: Interviews with the New Leaders*, p. 120. The god-like "creators and custodians" claim is somewhat more arrogant than an earlier conviction. Stamford Raffles who founded modern Singapore had written to the Duchess of Somerset on June 11, 1819: "My new colony thrives most rapidly....It is not necessary for me to say how much interested I am in the success of the place: it is a child of my own, and I have made it what it is" [Charles Burton Buckley, *An Anecdotal History of Old Times in Singapore* (Singapore: Oxford University Press, 1984), p. 56].

21 Roland Braddell devotes a chapter in *The Lights of Singapore* (6th edition, London: Methuen, 1947) to "Many Gods." As he notes of the Singapore situation, "Many and wonderful are the gods of China and far too numerous to mention...and I may remark that it is very hard indeed to find a Chinese who can tell you intelligently about the temples you visit or the gods and goddesses in those temples" (p. 77). However many and spectacular the Chinese gods and goddesses may be, there are other gods in Singapore, including the innumerable Hindu gods and goddesses. Then there are the monotheistic Muslims, Jews, and Christians who worship their own god.

22 *What I Believe*, trans. Geoffrey W. Bromiley (Grand Rapids, MI: William B. Eerdmans, 1989), p. 4.

23 "Is Ellul Prophetic?" in *Media Development*, Vol. XXXV, 2/1988, p. 7.

24 Utopia may not be too far from the minds of some Singaporeans as the PAP has coined such sentiments as "Excellence Together, Singapore Forever" (featured, for instance, in the 1989 and 1990 issues of *Singapore Bulletin* published by the Information Division of the Ministry of Communications and Information).

25 A popular saying in Singapore goes thus: "If the U.S. sneezes, Singapore will catch a cold."

26 Ellul is markedly prophetic in his sociological and theological analyses and pronouncements. Hence Martin Marty's pertinent observation and caution that "one cannot speak as a prophet of judgment against a way of life and expect the public to welcome the words" ("Creative Misuses of Jacques Ellul" in *Jacques Ellul: Interpretive Essays*, p. 3). In the same volume, Clifford Christians furnishes a vital perspective on Ellul's prophetic assertions in "Ellul on Solution: An Alternative but No Prophecy" (pp. 147-173).

27 *The Technological Society*, trans. John Wilkinson, intro. Robert K. Merton (New York: Vintage Books, 1964), p. xxv. In *The Technological System* Ellul reiterates his contention that the entire field of human activity, including human life, comes under the domain of technique. As for the technological spheres of human activity, he distinguishes between the various types of technologies according to their areas of application: "mechanical technologies (a very wide term, also covering things that are not, strictly speaking, mechanical, like computers); economic technologies (for research and intervention); organizational technologies (for all types of social organisms, including government, administration, etc.); and 'human' technologies (for the individual or for noninstitutionalized groups, advertising, propaganda, group dynamics, psychoanalysis, etc.)" (p. 176).

28 *The Technological Society*, p. 284. When Ellul refers to the "totalitarian state" he is not necessarily making reference to the popular conception of the totalitarian state, that is, "the brutal, immoderate thing which tortured, deformed, and broke everything in its path, the battleground of armed bullies and factions, a place of dungeons and the reign of the arbitrary" (ibid., p. 287). He holds the view that these traits are the transient rather than the real characteristics of a totalitarian state. Arbitrariness and totalitarian theories are not part of Ellul's notion of the technique driven dictatorial state. Scruples concerning tradition, principles, judicial affirmations, the maintenance of a facade of public and private morality still exist in such a democratic state. What is significant is that they are devoid of all power and are disregarded every time it is necessary to do so. It is within this definition of the totalitarian state that Lee Kuan Yew's rule over Singapore is being considered.

29 Ibid., p. 268.

30 Ibid., p. 286.

31 *The Culture of Technology* (Cambridge: MIT Press, 1983), p. 127.

32 Ibid.

33 Langdon Winner comes to a similar conclusion. He agrees with Habermas' argument that the pursuit of scientific technology brings with it specific ideological commitments. He notes, however, that "those who best serve the progress of technological politics are those who espouse more traditional political ideologies but are no longer able to make them work" [*Autonomous Technology* (Cambridge: MIT Press, 1997), p. 277].

34 *The Technological Society*, p. 281.

35 *Propaganda*, trans. Konrad Kellen and Jean Lerner, intro. Konrad Kellen (New York: Vintage Books, 1973), p. 196.

36 Ellul defines ideology as "the popularized sentimental degeneration of a political doctrine or worldview; it involves a mixture of passions and rather incoherent intellectual elements, always related to present realities" [*Jesus and Marx: From Gospel to Ideology*, trans. Joyce Main Hanks (Grand Rapids, MI: William B. Eerdmans, 1988), p. 1].

37 *Propaganda*, p. 197. Ellul defines orthopraxy as "an action that in itself, not because of the value judgments of the person who is acting, leads directly to a goal, which for the individual is not a conscious and intentional objective to be attained, but which is considered such by the propagandist" (ibid., p. 27).

38 In a talk broadcast over Radio Singapore in 1961, Lee Kuan Yew voiced his desire to create "a democratic, non-Communist and socialist Malaya" (*The Battle for Merger*, p. 24). Some form of democratic socialism appears to be the best alternative for Lee Kuan Yew. An individualistic, young Harry Lee could not fit into any of the existing political parties of the early 1950s. On the one hand, his thinly veiled ambitions combined with the brash mannerisms of a young cocksure upstart would be rejected by many of the older party leaders. On the other hand, a powerless Harry Lee craved ultimate power and he looked for an alliance with people who could incontrovertibly demonstrate that they have the most potential power. He could then manipulate that power to his supreme advantage. Although he found a widespread power base in the communists and therefore colluded with them to form a new political party, Lee was not attracted to communism. He could not be so enticed. Communism was manifestly hierarchical and owed its loyalty to China. Lee has consistently shown that he would not accept orders from anyone and leaders from a technologically backward China would not be excepted, especially since Lee is British trained and much more in tune with the dynamism of the West's economic, industrial and technological progress than with China's economic stagnation. He, in fact, could not speak Mandarin until later in life. If China were the final authority, it would also mean that Lee could be supplanted by a leader appointed by China who was more in tune with China's aspirations. There certainly were more such leaders on the scene. That Singapore is geographically situated in a predominantly Malay area is not of as much significance if Singapore were part of China.

From the economic standpoint, a semblance of democracy and some form of socialism suited Lee Kuan Yew. Ideological flexibility rather than purity is needed to transform Singapore into a technological city. Without upsetting the small Chinese or Indian businessmen too much, the PAP Government could launch forth into all manner of economic activity. It could turn the nation into one large enterprise. Lee as Singapore's No. 1 Boss could galvanize, revolutionize, and mold the young, pliable nation into Singapore, Inc.

39 Josey, *Lee Kuan Yew*, p. 508.

40 Shee Poon Kim, "The People's Action Party of Singapore 1954-1970: A Study in Survivalism of a Single-Dominant Party." Unpublished dissertation. Indiana University, 1971, p. 190.

41 Josey, *Lee Kuan Yew*, p. 78. Lee defines "democratic" to mean "that there is some measure of popular will, of popular support; that, from time to time, as accurately as is possible with trying to find out what human beings in a large group want or feel or think, one tries to act in accordance with the wishes of the majority" (ibid., p. 78). In 1962 he expressed doubt over the one-man-one-vote system of government in Southeast Asia.

42 Lee Kuan Yew wanted to tinker with the one-man-one-vote principle immediately after the 1984 general election when a massive 12.6 percent of Singaporeans voted against the PAP when compared to the previous election. Lee had "expressed his deep concern about the wild excesses and freak results that may come from the one-man-one-vote system" and was "considering proposals for constitutional changes to prevent this" (Straits Times, January 1, 1985, p. 1) First Deputy Prime Minister-designate Goh Chok Tong, to his credit, pleaded with Lee to leave the system alone.

43 Lee Soo Ann, "Trying to be Like Others" in *Far Eastern Economic Review*, August 6, 1976, p. 36.

44 *The People's Action Party of Singapore: Emergence of a Dominant Party System* (New Haven: Yale University Southeast Asia Studies, Monograph Series No. 14, 1970), p. 31.

45 "Vietnam's Designs," a speech given at the Twelfth Asian Ministerial Meeting at Bali, Indonesia on June 28, 1979, p. 10 in *Speeches: A Monthly Collection of Ministerial Speeches*, (Singapore: Ministry of Culture), July 1979. Earlier in the year, Rajaratnam had given a shorter version of the speech, "Man's Inhumanity to Man," at the Singapore Red Cross Society's 30th anniversary dinner on February 17 (ibid., March 1979).

46 "Vietnam's Designs," p. 16

47 This is a major type of war in which the battle-scarred PAP has excelled.

48 *Singapore Trade Statistics: Imports and Exports*, Vol. III, No. 2, July to December 1977; Vol. V, No. 2, July to December 1979; Vol. VI, No. 12, December 1985. Singapore: Department of Statistics.

49 Such statistics are embarrassing, if not condemnatory. They are not given in the more popular yearly *Singapore: Facts and Pictures*. But, as though in realization of this baffling incongruity, Vietnam disappeared from the *Singapore Trade Statistics: Imports and Exports* in 1986. This phenomenon—a manipulation of statistics, of truth and falsehood—however, belongs to the next chapter.

50 *The Technological Society*, p. 282.

51 Ibid.

52 Ibid.

53 *Report of the Select Committee on the Criminal Procedure Code (Amendment) Bill*. Parl. 8 of 1969, p. A6 quoted in Chan Heng Chee, *A Sensation of Independence*, pp. 232-233.

54 Turnbull, *A History of Singapore 1819-1975* (Kuala Lumpur: Oxford University Press, 1977), p. 324.

55 Chan Heng Chee, *A Sensation of Independence: A Political Biography of David Marshall* (Singapore: Oxford University Press, 1984), p. 233

56 Ibid.

57 *The Technological Society*, pp. 291-292.

58 Ibid., p. 294.

59 Ibid., pp. 295-296.

60 Ibid., pp. 297-298.

61 Ibid., p. 298.

62 Stung is Lee Kuan Yew's latest weapon in his vast arsenal against those who oppose or disagree with his policies. This strategy attempts to hit where Lee Kuan Yew believes will hurt most in Singapore society: the bank balance. He has promised those who would follow him riches. Conversely, he wishes to reduce those who would oppose him to rags. This is the latest riches-to-rags or rags-to-riches story in Singapore.

63 This is another instance of the PAP Government's pervasive presence. Big Brother, it may be said, hears all with the aid of a technological hearing device: the tape recorder. In Orwell's *Nineteen Eighty-Four* Winston was well aware that although it was safer in the country than in London because of the absence of the ubiquitous telescreens, "there was always the danger of concealed microphones by which your voice might be picked up and recognized" (Harmondsworth, Middlesex: Penguin Books, 1954, p. 97). In Singapore, while there were rural areas before the coming of the PAP, the "country" has since virtually vanished. Hearing and seeing devices, human and technological, are truly here, there, and everywhere.

64 *Far Eastern Economic Review*, July 19, 1990, p. 13.

65 In his electioneering, Jeyaretnam had also complained that no inquiry was conducted into how Teh had managed to obtain the drug. Lee Kuan Yew alleged that Jeyaretnam's complaint implied that he had supplied the drug to Teh and encouraged him to commit suicide.

66 *Far Eastern Economic Review*, July 19, 1990, p. 13. (Lee's wife is also a lawyer.) The case ended on July 6, 1990 with judgment reserved.

67 While bribery is anathema to the PAP, the exercise of such influence by those in power is not openly frowned upon and is certainly a way of negotiating government bureaucracy with ease.

68 Since trial by jury was abolished, the safeguard of enlisting the possibly impartial judgments of those who are not part of the elaborate web is no longer a possibility.

69 *The Technological Society*, p. 117.

70 Ibid., p. 126.

71 Although conveniently classified as one ethnic group (and each appears to be homogeneous to the uninitiated), plurality reigns within each of the three major ethnic groups. The Chinese are divided largely along dialect lines since one Chinese speaking a particular dialect is often totally incomprehensible to another Chinese speaking a different dialect. The five major dialect groups are Hokkien, Teochew, Cantonese, Hainanese, and Hakka. The smaller dialect groups include Foochow, Henghua, Hokchia, and Kwongsai. Variations in social customs and religious beliefs of these dialect groups which come from different regions in China also contribute to the presence of ethnic subcultures.

Cultural variations that arise because of differences in their regional origins are similarly evident with the Malays and Indians. The Malays consist chiefly of the Riau Malays, Javanese, Boyanese, Bugis, and Banjarese. The Indians consist mainly of the Tamils, Sikhs, Malayalis, Punjabis, Bengalis, and Gujeratis.

72 Chiew Seen Kong, "Ethnicity and National Integration: The Evolution of a Multi-ethnic Society" in *Singapore Development Policies and Trends*, p. 61.

73 Josey, Lee Kuan Yew, p. 64. Lee Kuan Yew kept his word—in a very limited fashion. His son, Hsien Loong (made deputy prime

minister in November 1990), did not start his formal schooling in an English school. However, not only did Hsien Loong graduate from Cambridge University, England, Lee Kuan Yew was also to dismantle the one and only Chinese university in Singapore when he became prime minister. As a coup de grace, all schools in Singapore now use the English language as their first language of instruction. It is not efficient to have schools using Malay, Mandarin, or Tamil as the primary medium of instruction.

74 "The Lee Kuan Yew Style," in *Far Eastern Economic Review*, November 11, 1965, p. 287.

75 Ibid.

76 It should be noted that Lee Kuan Yew's treatment of non-PAP Singapore leaders is fairly evenhanded because control has to be exercised over the motley races. Just the day before his reply, Lee Kuan Yew had summoned the editors of the Malay-language paper, *Utusan Melayu*, to warn them against printing further inflammatory materials. Lee Kuan Yew had barely emerged from the debacle of seeing Singapore being expelled from Malaysia. As the prime minister of a newly-independent nation, he again displayed his extraordinarily adversarial approach to Singaporeans who either disagree with him or suggest any policy that is counter to what he has articulated. Gamer refers to them as "verbal bludgeonings" (ibid., p. 287). They may be considered a necessary tool in order to bring about such a fundamental change as a switch in one's mother tongue.

77 "English-Mandarin or English-dialect?" in *Speeches: A Monthly Collection of Ministerial Speeches*, October 1979, p. 2 (emphasis added). Earlier, Lee Kuan Yew pronounced that the "problem of many dialects cannot be solved in four to five years." He says: "It will take 10-20 years or longer" ("Mandarin: Lingua Franca for Chinese Singaporeans" in *Speeches: A Monthly Collection of Ministerial Speeches*, April 1978, p. 7). He failed to state why, within the space of six months (the first speech was given on March 4, 1978 and the second on September 7, 1979), there was the drastic reduction in the time period over as fundamental an issue as a linguistic transformation. It is plausible that the governmental machinery, well versed in propaganda, had worked out a rigorous timetable in between.

78 Lee's contention is not adequately substantiated by the very surveys which he ordered (ibid., pp. 3-5): Chinese bus passengers, for instance, spoke to Chinese conductors in Hokkien 75 percent of the time. (Teochew: 7 percent; Cantonese: 5.2 percent; and other dialects: 1 percent; adding to 88.2 percent. Mandarin was used only 3.7 percent; English 7 percent; and Malay 1.2 percent.) The distribution of dialect groups in Singapore is: 42.2 percent Hokkien; 22.3 percent Teochew; 17 percent Cantonese; and 18.5 percent other dialects. If the surveys were representative, it could well be concluded that Hokkien is a predominant dialect spoken in Singapore, one that is spoken even by those who are not in that dialect group.

79 In an earlier speech, Lee noted that the British "left all dialects alone," but the PAP Government "has a responsibility to solve this problem" ("Mandarin: Lingua Franca for Chinese Singaporeans," pp. 67). Lee Kuan Yew again shows his agenda-setting role. His eyes tend to see "problems" where other eyes have not. Once put into motion, efficiency colors the eyes of its adherent and he sees problems where they have not previously existed. Efficiency has an autonomous quality to it.

80 Agenda-setting is not only a prerogative that Lee Kuan Yew jealously guards, he also controls the discussion and directs it along a channel he has created.

81 "English-Mandarin or English-dialect?," p. 1.

82 Ibid. In this speech, Lee stressed that very few Chinese students could cope with English, Mandarin, and a Chinese dialect. Hence the need to start the use Mandarin and curb the use of the dialect in the homes so that Mandarin will become a living language. In an earlier speech, he said, "If you speak 22 dialects, never fear that your child will lose the dialect you spoke to him as a child...He will speak it because he learnt it from birth" ("Mandarin: Lingua Franca for Chinese Singaporeans," p. 6). Lee's reassuring words, however, contradicts his very contention that a Chinese student is unable to handle English, Mandarin, and a dialect. His argument that there is "no danger of dialects being killed" is empty political rhetoric. It is because dialect is spoken at home that the learning of Mandarin is a failure. If Mandarin is to supplant the use of the Chinese student's mother tongue, the latter will be killed. This is another instance of death in a technological society.

83 Lee gave Taiwan as an illustrious example to support his argument that there is "no danger of dialects being killed." He points out that in Taiwan, "80 per cent of the radio and television programmes are in Mandarin. Hokkien is still used by the older generation when speaking to the younger generation. But young people have bigger vocabularies in Mandarin, over 3,000 words, and are fluent in it. To speak to their parents, the young need a smaller vocabulary" ("Mandarin: Lingua Franca for Chinese Singaporeans," p. 6). Taiwan seems the perfect illustration to sooth any linguistic misgivings among the elderly. Lee, however, failed to mention that Taiwanese are not particularly proficient in English. Taiwan, in fact, substantiates his original observation that children cannot proficiently handle English, Mandarin, and a dialect. Taiwan is less than the ideal that Lee would have Singaporeans believe. It is a spurious illustration. Unless analyzed, Lee's rational thoughts always have a very persuasive appeal.

84 Ibid., pp. 1-2

85 Ibid., p. 2.

86 Harvey Stockwin notes that "Hongkong is overwhelmingly Cantonese, while the Manila Chinese community is overwhelmingly Hokkien. But even among the Chinese community as a whole Singapore Hokkiens only account for 42.2% of the total and only 32.3% of the overall population. The Cantonese were the second largest community prior to World War II, but since then they have been overtaken by the Teochews, the largest single group among the Chinese in Bangkok" ("The Singapore Connection" in *Far Eastern Economic Review*, August 6, 1976, p. 42). The governments in these other countries within Southeast Asia or Asia did not consider it necessary to intervene in an authoritarian fashion to alter the linguistic environment. The PAP Government—in pursuit of efficiency or enslaved by efficiency—can do no other.

87 *What I Believe*, p. 4.

88 Ibid., p. 69.

89 *Living Faith: Belief and Doubt in a Perilous World*, trans. Peter Heinegg (San Francisco: Harper & Row, 1983), p. 226.

90 Ibid., p. 189.

91 Lee has certainly appointed himself guardian of Singapore's foreign reserves. A responsibility of the newly created executive president of Singapore is that he may defend them. Lee does not trust his handpicked and groomed protégés to look after the foreign reserves as he is fearful that his successors may squander them.

92 Iain Buchanan, *Singapore in Southeast Asia: An Economic and Political Appraisal* (London: Bell and Sons Ltd., 1972), p. 284.

93 Ibid.

94 Josey, *Lee Kuan Yew*, p. 144. The People's Association that Lee Kuan Yew referred to as a "non-Government" organization made use of government funds as well as reported directly to Lee Kuan Yew as its chairman. To the vast majority of Singaporeans, with apparently the exception of Lee Kuan Yew, the People's Association is part of the PAP colossal governmental machinery.

95 *Singapore: Ideology, Society, Culture* (Singapore: Chopmen Publishers, 1985), p. 54.

96 Ibid.

97 *The People's Action Party of Singapore: Emergence of a Dominant Party System*, p. 101.

98 *The Mirror*, January 10, 1966, p. 7 (original emphasis). Enright had observed the pride in Lee's remarks to the British Labour Party rally at Scarborough on October 1, 1967 when the prime minister described Singapore thus: "I do not pretend that we are an idyllic socialist community in South-East Asia. We still have the highest number of millionaires per ten thousand of population in South Asia. But we are one of a few places in Asia where there are no beggars, where nobody, old or young, dies of neglect and starvation. True, they are modest achievements but none the less precious to us" (*Memoirs of a Mendicant Professor*, p. 194). Lee Kuan Yew underscores the debt that wealthy Singaporeans owe him. While there are some grounds for maintaining that nobody dies of neglect in Singapore (unless the person is terminally ill and a precious hospital bed is not allocated for a person who has outlived his usefulness), many are dying for a chance to be neglected by the PAP Government's deluge of directives and its army of watchful enforcers.

99 *Governing Singapore: Interviews with the New Leaders*, p. 160. While the politician qualified his remarks by stating that, in practice, Lee Kuan Yew consults extensively with government departments as well as those in the professions and private industry before making his decisions, it does not vitiate the widespread belief that one man rules the nation. In this light a reasonable doubt is likely to arise in the minds of some people as to whether the judiciary exercises any control over the powers and prerogatives of a prime minister during his years of constantly enhanced powers. The check-and-balance role so crucial in a democracy falls into a dark, doubtful domain in Singapore.

100 Ibid., p. 161.

101 Ibid., p. 155.

102 *The Mirror*, October 30, 1967, p. 6. Johnson, in his speech welcoming Lee Kuan Yew, says: "Singapore is a bright example of what can be accomplished not only in Asia, but in Africa and Latin America—wherever men work for a life of freedom and dignity" (ibid., p. 6). It is, however, freedom and dignity with a price that Johnson himself would not want to pay for if he were to be coopted as part of the lower rungs of the system. Nevertheless Johnson's speech is indicative of the untroubled, glowing portraiture of Singapore that is seen by the tourist and in PAP Government's glossy publications.

103 *The Technological System*, p. 82.

104 Singapore is well known for its "instant" Asia image. The electronics branch of technology has now given a new twist to its reputation. It captures traffic violators instantaneously. For instance, I was driving in the middle lane of a three-lane road at 10:00 p.m. in 1989 when the traffic lights turned amber. I stopped, but the two

cars—one on my right and the other on my left—jumped the lights. The blinding flash from the camera has etched itself into my mind.

105 The telescreen in George Orwell's *Nineteen Eighty-Four* is ubiquitous. "Nothing," Winston notes, "was your own except the few cubic centimetres inside your skull" (p. 25). Singapore, with its own technical and human versions of the telescreen, possibly have traffic and other violators who would mutter something similar.

106 *The Technological System*, p. 125.

107 *What I Believe*, p. 135.

108 Ibid.

109 *The Technological Society*, p. 116.

110 Josey, *Lee Kuan Yew*, p. 490.

111 As T.J.S. George notes, Lee Kuan Yew's "favourite word when referring to Singaporeans is, characteristically, 'digits'" [Lee Kuan Yew's *Singapore* (London: Andre Deutsch, 1973), p. 132]. Again, Ho Kwon Ping observes, "This efficient, hierarchical structure of technocrats, technicians and toolpushers is in line with the leadership's concept of a society in which each person is a 'digit'—a favourite term used by the Prime Minister" (*Far Eastern Economic Review*, August 6, 1976, p. 46). In his speech to the 4th Delegates' Conference of the National Trades Union Congress on April 26, 1967, Lee Kuan Yew, for instance, says, "We must all the time train and build better digits than the cadres they [the communists] have withdrawn so that when they come back, they will find the world has left them behind" (*The Mirror*, May 8, 1967, p. 6).

Book Reviews

Essay Review

Nicholas Negroponte, *Being Digital* (New York: Alfred A. Knopf, 1995).

Neil Postman, *Technopoly: The Surrender of Culture to Technology* (New York: Vintage, 1993).

Clifford Stoll, *Silicon Snake Oil: Second Thoughts on the Information Highway* (New York: Anchor, 1995).

Edward Tenner, *Why Things Bite Back: Technology and the Revenge of Unintended Consequences* (New York: Alfred A. Knopf, 1996).

Reviewed by David W. Gill

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Books on technology and its various roles in our culture are pouring from the press these days. The four books under review here present a wide spectrum of attitudes toward the growth of technology. We begin in the "Amen corner" with Nicholas Negroponte, Professor of Media Technology at MIT, Founding Director of the Media Lab, and columnist for *Wired* magazine.

Being Digital is a breathless, adoring tour of the technological future allegedly at our doorstep. This will be a world of high-speed, high-volume movement of "bits" of digitized information—pretty much replacing the movement of "atoms." "The change from atoms to bits is irrevocable and unstoppable" (p. 4). Digital communication brings not only a quantum leap upward in volume, it changes our relationships to time and space. Your location is your (portable) email address; other geographic places can (virtually) come to you (p. 165). Asynchronous communication becomes more and more prevalent (answering machines, e-mail, on-demand television, etc.). The whole rhythm of work and play changes: the old nine-to-five, five-day work week in the office is gone. Now we can work wherever we want, whenever we want. In contrast to those who might appreciate a break in time and space from their work, Negroponte testifies "some of us like to be 'wired' all the time" (p. 193). It is probably not too reckless to predict that in Negroponte's digitally-obsessive future, psychotherapists will continue to do a booming business.

Oddly enough, just as we manage to escape having to deal with real human beings, Negroponte dreams "that computers will be more like people" (101). He looks forward to the time when computers will read and respond to our presence and our speech (sort of a sophisticated version of motion-sensing light switches).

In the next millennium, we will find that we are talking as much or more with machines than we are with humans" (p. 145). The joys you now experience with ever-extending phone-

mail menus may soon be with you in all areas of your life and work!

Negroponte's digital world will inundate us with multi-media possibilities and choices. But "pull" instead of "push" will determine what we see and hear. "Being digital will change the nature of mass media from a process of pushing bits at people to one of allowing people (or their computers) to pull at them" (p. 84). The "news" (and our entertainment—though it may be difficult to know the difference!) will be whatever we want it to be, whenever we want it. The current "information age" is characterized by massive information directed at mass audiences. "In the post-information age, we often have an audience the size of one. Everything is made to order, and information is extremely personalized.... In being digital I am *me*, not a statistical subset.... True personalization is now upon us" (p. 164).

The digital world, Negroponte predicts, will be great for education. Students will use computer simulations to replace or augment their lived experiences; they will play with information instead of memorizing facts. "Today kids are getting the opportunity to be street smart on the Internet, where *children are heard and not seen* [Negroponte emphasis]. Ironically, reading and writing will benefit.... The Internet provides a new medium for reaching out to find knowledge and meaning" (p. 202). Nor need we mourn the disappearance of the extended family, for with thousands of BURP members on line... "making just that enormous body of knowledge and wisdom accessible to young minds could close the generation gap with a few key strokes" (p. 203). And you thought it was more complex than that!

Personal computers will make our future adult population simultaneously more mathematically able and more visually literate. . . the pursuit of intellectual achievement will . . . cater to a wider range of cognitive styles, learning patterns, and expressive behaviors. . . The middle ground between work and play will be enlarged dramatically. The crisp line between love and duty will blur by virtue of a common denominator—being digital" (220-21)

"The Information Superhighway is . . . creating a totally new, global social fabric" (p. 183). Does Negroponte see any downside or difficulty with the new social order? "Netiquette" is a problem, although more so for the lack of brevity than for the presence of lies and disinformation, or of the crude, rude, and lewd. "Every technology or gift of science has a dark side. Being digital is no exception" (p. 227). There are problems of intellectual property abuse, invasion of privacy, digital vandalism, software piracy, data thievery, and loss of jobs to automation. Furthermore, bits are not edible; in that sense they cannot stop hunger. Computers are not moral; they cannot resolve complex issues like the rights to life and to death" (pp. 228-9).

But for Negroponte, these are merely glitches in a powerful, unstoppable cultural change. Four powerful qualities of the digital world will lead inexorably to triumph: decentralizing, globalizing, harmonizing, empowering. The globalizing and

harmonizing qualities are clear enough. Negroponte's readers may harbor greater doubts about whether true decentralization and empowerment will occur.

Clifford Stoll describes himself as "an astronomer, computer jock, and weekend plumber" in Oakland California. He was also one of the pioneers of the Internet, but now is a bit of a "backslider" whose "second thoughts on the information super highway" are a valuable counterpoint to Negroponte's euphoria. No doubt, Stoll, writes, the Internet has its challenging, fun, and useful side. But what is the price? What are we trading off to get on this highway? Stoll argues that the medium is being oversold and that there is too little critical discussion.

What are the problems that Stoll sees? First, a great deal of time is demanded just to keep up with one's e-mail, chat groups, and Internet explorations. Little Internet information is genuinely useful and what is there is often a distraction from reality. Life on the Internet is passive rather than active; computer networks isolate us from one another, cheapen the meaning of actual experience, work against literacy and reality, and undercut our schools and libraries. Schools are being sold down the networked river, induced to "spend way too much on technological gimmicks that teachers don't want and students don't need" (p. 11).

"Few aspects of daily life require computers, digital networks, or massive connectivity" (p. 10). Stoll gives long lists of such important non-computer activities: baking bread, curling up with a good novel, and hanging out with friends. He quotes Thoreau's famous comment in *Walden*: "Our inventions are wont to be pretty toys, which distract our attention from serious things. They are but improved means to an unimproved end" (p. 15).

Despite contrary claims, in reality the Internet is painfully slow (especially during business hours). Just as all highway building has led to more traffic congestion, bandwidth expansions are doomed to be forever glutted with as much or more traffic than they can possibly bear (pp. 206-7). And the equipment itself is not at all perfectly reliable: "I spend almost as much time figuring out what's wrong with my computer as I do actually using it" (p. 3)

More than its inefficiency, the abysmal quality of information on the Internet is Stoll's frequent refrain: "Look at the detritus, dross, and dreck sold on the television home-shopping channels" (p. 18): the same will be available on the computer shopping network. A 500 channel system will surely deliver "unfathomable and boundless mediocrity" (p. 21). "Instead of an Internet-inspired renaissance, mediocre writing and poorly-thought-out arguments roll into my modem (p. 26). The Internet is a great medium for trivia and hobbies, but not for reasoned reflective judgment or true creativity. Data, information, knowledge, understanding, and wisdom are different things. The Internet provides mountains of data, some information, a little knowledge and understanding, but no wisdom.

Educators are falling for a bogus promise when they invest in computers instead of teachers and books (pp. 130ff). Scarce resources are being wasted, the information gained is of doubtful value, and true creativity is stifled rather than unleashed. "Creative people are ill-adapted for survival around computers. . . the medium in which we communicate changes how we organize our thoughts. We program computers, but the computers also program us" (46). Creativity is confined within narrow boundaries established by the medium itself.

Interpersonal relationships and communication are also harmed at least as much as helped by the Internet. "Anonymity and untraceability seem to bring out the worst in people" (p. 57). Computer networks isolate us from one another, rather than bring us together. "Electronic communication is an instantaneous and illusory contact that creates a sense of intimacy without the emotional investment that leads to close friendships." (p. 24).

The key ingredient of their silicon snake oil is a technocratic belief that computers and networks will make a better society. Access to information, better communications, and electronic programs can cure social problems . . . [But] access to a universe of information cannot solve our problems: we will forever struggle to understand one another. The most important interactions in life happen between people, not between computers (p. 50).

It is important to recall, of course, that anonymous hate messages are already enabled by conventional mail and telephone calls, and that pounds of unsolicited junk mail are accompanied by daily telemarketing intruders. But Stoll has written a very important book, whose credibility and persuasiveness is multiplied by his experience with the Internet and by the fact that he "has a life"—in sharp contrast to the sterile, narrow existence reflected in most computer nerd tracts. Reading Negroponte and Stoll together is a great foundation for serious reflection on the arrival of the digital age.

Edward Tenner's *Why Things Bite Back* examines technology more broadly than do the books by Negroponte and Stoll. In particular, Tenner looks at medicine, agriculture and the environment, the computerized office, and sports. A historian of science at Princeton University, Tenner has provided a voluminously documented and illustrated account of the unintended consequences (called "revenge effects") of our technologies. "Technology demands more, not less, human work to function. And it introduces more subtle and insidious problems to replace acute ones. Nor are the acute ones eliminated. . . [I]n controlling the catastrophic problems we are exposing ourselves to even more elusive chronic ones that are even harder to address.... Our greater safety demands more and more vigilance.... I am not arguing against change, but for a modest, tentative, and skeptical acceptance of it" (p. xi).

A revenge effect is when a technology produces a result the opposite of what was intended. For example, When a safety system encourages enough additional risk-taking that it helps cause accidents, that is a revenge effect" (p. 19). Football helmets and protective gear are a case in point. Smoke alarms that make people less vigilant in preventing fires are another. Decentralizing work from the office to a home work station often leads to greater captivity to work rather than greater freedom. Going to the hospital to get well can expose one to more disease than staying away. Intensive use of antibiotics has promoted the development of more resistant viruses.

"If we learn from revenge effects we will not be led to renounce technology, but we will instead refine it: watching for unforeseen problems, managing what we know are limited strengths, applying no less but also no more than is really needed (p. 115).

In the office, Tenner describes revenge effects on the body as well as on the bottom line: repetitive motion injuries (e.g., carpal tunnel syndrome), back injuries from being seated so long before terminals, eyestrain, and the unknown impact of electro-magnetic field exposure. The financial issue is that net

productivity is relatively unchanged: the cost of technical support personnel, for example, erodes the savings from downsizing the regular staff. Instead of resulting in paper-less offices, computerized workplaces use far more paper because of the ease of cranking out revised documents.

Tenner's book is dense with examples of revenge effects; his case is made with overwhelming evidence. The obvious point of his book is that we must face up to the truth of our technologies: there are serious consequences, negative as well as positive. The negative impacts of our technologies are not restricted to their uses made by evil people! Often the consequences are entirely unforeseen (though if we were more realistic and careful we might be able to foresee more than we do). Tenner suggests that we need more "finesse" in the development and application of technology—the capacity to move with moderation and with attention to the environment of application. He also urges "vigilance"; the introduction of technology requires more intense and sustained care, not less (the myth says that technology is more reliable than humans, that it frees us from hard work, etc.).

Neil Postman, Professor of Communication Arts & Sciences at New York University, has been raising questions about technology for many years. In *Technopoly*, he provides a broad and sustained critique of "the surrender of culture to technology." While technology has in many cases made life "easier, cleaner, and longer," Postman argues that "the uncontrolled growth of technology destroys the vital sources of our humanity. It creates a culture without a moral foundation. It undermines certain mental processes and social relations that make human life worth living. Technology, in sum, is both friend and enemy" (p. xii).

Postman notes that technology has a large and enthusiastic chorus of evangelists and promoters—but rather few critics who examine its drawbacks. He looks at specific areas and associated problems (e.g., medicine, computers, social science research, media) but his main contribution is in an analysis of technology as a whole ensemble, in relation to a whole culture.

We have moved historically from tool-using cultures to technocracy to technopoly. In technocracy (18th century onward) technological tools are no longer in roles subordinate to particular, limited purposes—they play a central role in culture (e.g., the "Industrial Revolutions"). In the twentieth century, we have moved a further, critical step, to technopoly: technology has become a monopolizing force, dominating and subordinating all of culture to its logic. Technologies can have an important and valuable place in a culture with a grand story or narrative whose worldview and values govern the whole. Unfortunately, the older worldviews have been eclipsed; the progress and goodness of technology has itself become the narrative of our dominant culture—incapable of passing critical judgment on itself.

Embedded in every technology (and in technology as a whole ensemble) is an ideological bias. Postman quotes the old adage: To a man with a hammer, everything looks like a nail. And today: to a man with a computer, everything looks like data. "The uses made of any technology are largely determined by the structure of that technology itself—that is, its functions follow from its forms" (p. 7). "Technological change is never additive nor subtractive. It is ecological" (p. 18). Adding a television set to a home, for example, does not result in "home-life plus televisions; it transforms the way families eat, interact, think about news, and practice religion; it modifies personal

behavior, attitudes, relationships, and the economic and political domains.

Postman discusses with humor and insight the impact of technology on medicine. His chapter on computer technology shows how much is lost when only those things that can be processed on computers have reality and importance. The linguistic fuzzing of boundaries by using terms like "virus" for computers and "programming" and "input" for human activities is symbolic of technopoly's ideological impact. Less apparent to most observers and technology users are the "invisible technologies" of opinion polls, intelligence tests, and the worshipping use of statistics.

We live with information glut (well-illustrated in Postman's account), information chaos, and the elevation of information (especially quantifiable information) to "metaphysical status" (p. 61). Postman shows how this has developed from the inventions of printing, then telegraphy, photography, broadcasting, and now computers. "The computer argues, to put it baldly, that the most serious problems confronting us at both personal and public levels require technical solutions through fast access to information otherwise unavailable. I would argue that this is, on the face of it, nonsense. Our most serious problems are not technical, nor do they arise from inadequate information" (p. 119).

In order to make sense of our lives and of the information we encounter, we need institutions to help us evaluate and synthesize. The school, family, church, political party and state, however, no longer serve us well as controllers of information. The old interpretive myths (Christianity, Marxism, etc.) have either disappeared or retreated to a narrow private sphere. Instead, bureaucracy, "expertise," and technical machinery (tests, standardized forms, polls, etc.) are the new information controls. Their main controlling impact, however, is to exclude whatever cannot pass through their quantitative, technical filter. Underneath it all, is the broad adherence to a narrow "scientism" that justifies the intellectual operations of technology. While Negroponte celebrates the opportunity for each individual person to pick and choose their identity and environment, Postman mourns the fact that the individual doing this self-creation is a community-less, story-less "atom" at the mercy of a mass society and a firehose of information.

The answer, for Postman, is educational reform. And that does not mean computerizing all classrooms! The teaching of history, including the history of technology, is a crucial antidote to the a-historical prejudice of technopoly. He also suggests courses in the philosophy of science, semantics, and religion as possible antidotes to technopoly. Such curricular reform, of course, is a path rarely contemplated today.

If Tenner's *Why Things Bite Back* is the voluminous nuts-and-bolts caution about technological enthusiasm, Postman's *Technopoly* is the essential companion piece on the broader contours of technology and culture. A reading of Tenner might just prepare some of our technophile friends to have open minds in considering the vitally important case made by Postman (and before him, with still greater detail and power, Jacques Ellul).