Educating for Meaning & Morality: The Contribution of Technology by David W. Gill(1997)

> *"The chief purpose of instruction and*
> *education today is to bring along a younger*
> *generation which is* adjusted *to this society."*
> -Jacques Ellul
> *To Will and To Do,* p. 192

1. The Teaching of Meaning & Morality in Schools & Universities

1.1 Thing-makers, Meaning-makers, & Morality-makers

Our schools and universities are not, of course, our only teachers. Families, friends, and religious communities also teach us; the news and entertainment media teach us; personal experience teaches us; books teach us. And while schools do teach, this does not always result in *learning*---at least not in authentic, life-enhancing learning. As Ivan Illich pointed out long ago in *Deschooling Society* (1970), schools are sometimes a great *obstacle* to learning.[1] Nevertheless, for better or worse, schools remain among the most important teachers of the people.

What do these educational institutions teach? Certainly they teach a great deal of information about many things---and there are constant debates about just what information should be taught. Great effort and emphasis is given to teaching practical skills and techniques which, it is thought, will be put to use in work and in making a living (hopefully with a reliable and ever-growing monetary pay-off). More traditional and more philosophical types often complain that such vocational education now exercises nearly complete dominance over (a) educational curricula at all levels, (b) the budgets and strategic plans of most educational administrators, and (c) the educational dreams and desires of most parents, students, politicians, business leaders, and the public at large.[2]

A major reason for complaining against the reduction of education to vocational training is that the identity of *homo sapiens* is not, and cannot be, exhaustively accounted for as *homo faber.* Human beings are not just workers and *thing-makers*---they are always also *meaning-makers* and *morality-makers*. There is an inescapable moral aspect to human life. However chaotically or unreflectively, we adhere to ideas of, and render judgments about, good and bad, right and wrong.

And we also crave and construct meaning (i.e., a sense of direction and significance) for our lives---or despair of its absence. There is an inescapable religious/philosophical aspect to human life. However chaotically or unreflectively, persons have something like a worldview, a philosophy of life, or a religion, with which to interpret and explain to themselves (and perhaps to others) the meaning of life.

1.2 The Role of Schools and Universities

Schools and universities *always* educate for such meaning and morality---even when their avowed purpose is to exclude such subjects and teach only the know-how to perform well in a job. Historically, most schools and universities knew this and explicitly, happily, committed themselves to the task of teaching what they thought was the best (or the only) approach to the meaning of life and to authentic morality. Often enough they thought that this was the *most* important task of education. The founding charter of Maine Agricultural College in 1865 stated:

> *It shall be the duty of Trustees, Directors, and Teachers of the College to impress upon the minds of the students, the principles of morality and justice and a sacred regard for the truth; love of their country; humanity and universal benevolence; sobriety, frugality, chastity, moderation and temperance, and all other virtues that are ornaments of human society.*

When this agricultural college became the University of Maine in 1897, the charter remained the same.

Another example: Washington State University's 1897 catalog stated that an effort had been made "to include [in as many courses as possible] . . . subjects . . . valuable for their influence on the formation of character and correct views and purposes of life."[3]

Over the course of the 20th century, most schools and universities (at least in what we have called the West) abandoned the goal of promoting the older normative systems of meaning and morality. These older religious, philosophical, and moral authorities have fallen into academic disrepute. Still more radically, the very enterprise of teaching meaning and morality is itself in disrepute. Meaning and morality

are routinely regarded as matters only of personal conviction, feeling, and opinion, rarely of explicit interest to educators.   Perhaps the recent wave of ethical scandals among corporate leaders will now generate some significant new interest but the broader trend has not been encouraging. A recent (1994) *Hastings Center Report* on "Values on Campus" reminded educators that

> *Throughout most of its history, American higher education has understood its social mission to include instruction in fundamental ethical values. . . Today, however, most colleges give little systematic attention to this traditional aspect of their mission. If education in values at most colleges is not altogether passé, what remains tends to be a rather tattered, patchwork affair.[4]*

The morality vacuum in higher education *is* being addressed, in some important respects, in the recent boom of applied ethics courses and ethics-across-the-curriculum programs. This is certainly a laudable movement since it recognizes the importance of the moral dimensions of life, learning, and vocation. However, the applied ethics agenda is usually driven by "hard cases" at the termination points of longer processes and deeper choices which are responsible for such quandaries and dilemmas. Confining ethical analyses to such dilemmas and hard cases, overlooks the moral significance of those antecedent factors. Applied ethics then becomes little more than "damage control."

When applied ethics carries out its casuistry, some basic theories of ethics are usually offered as options for decision-makers. "Values" are identified and "clarified" (as in the "values clarification" movement dating back a few years). But the process is little more than a "muddling through" to a provisional resolution of one quandary or another. It is an important exercise, all things considered, but it does not probe very deeply.

Religion, the source of most meaning and morality for most people, is sometimes *taught about*, but now only rarely *taught* in an explicit way. Usually it is denied or ignored. Occasionally it is scorned and derided. This is especially short-sighted because, in practice, "roughly half of Americans" report that their "religious tradition is very important in reaching moral decisions."   Religion (traditional or otherwise) gets at those deeper choices and values from which meaning and morality emerge.[5]   These trends are partly the result of the apparent failure of religion and morality to establish their credibility on scientific grounds. They seem to be matters of faith, myth, and taste, inaccessible to science. And more recently, it seems unnecessarily divisive to bring such personal and perhaps nonrational affairs into our multicultural classrooms. So, with the exceptions noted above, we have sanitized our classrooms and campuses, keeping the deepest matters of meaning and morality at a safe distance. We don't want to upset or offend anyone.[6]

1.3 The Hidden Curriculum
This modern denial, however, only thinly masks the meaning and morality that are, in fact, being widely taught by schools and universities today. Again, in *Deschooling Society*, Ivan Illich called attention to the "hidden curriculum of schooling" which "serves as a ritual of initiation into a growth-oriented consumer society." As he saw it

> *The school system today performs the threefold function common to powerful churches throughout history. It is simultaneously the repository of society's myth, the institutionalization of that myth's contradictions, and the locus of the ritual which reproduces and veils the disparities between myth and reality.[7]*

Illich shows how the myths of institutionalized values, of unending consumption, of the measurement of values, of packaging values, and of self-perpetuating progress have come to dominate the hidden curriculum of schooling.

In broad strokes, thirty years after Illich's book, it is safe to say that today's schools and universities teach something like the following: the meaning of life consists in acquiring college degrees, in finding an interesting and, above all, well-paying job, and preparing for a life of maximum consumption. As for morality, money and material things rank among the greatest goods; poverty is evil; personal pleasure and excitement are good; suffering and boredom are evils; protected sex with lots of people is good; smoking (except for expensive cigars) is almost everywhere evil; autonomy and tribalism, however contradictory, are good; the national "melting pot" is bad; slim, hard-bodied, Hollywood looks are good; Rubenesque looks are bad.

I do not, of course, claim that all teachers and schools consciously, or even unconsciously, teach such a morality or meaning framework---only that values (often enough these) are not absent from the educational process. They are at least embedded in it as a hidden curriculum. One way or another, they are implied and reinforced by our structures, practices, and attitudes. Something had to fill the meaning

and morality void left by the successive demises of Christendom and Modernity. The preceding paragraphs tell part of the story of their successors.

2. The Contribution of Technology to Meaning & Morality in Education

2.1 Technology is the Defining Force in Education & Culture

Nevertheless, the recent history of meaning and morality in education is only partly completed by the foregoing account. At a more profound level, I wish to argue, meaning and morality in our culture and in its educational institutions have been taken over by technology.[8] Technology is contributing notions of meaning and morality to contemporary education.

In his well-known study of *The Technological Society* (1954; ET, 1964), and in many subsequent works, Jacques Ellul detailed the emergence and the universal, global, intensive and extensive dominance of *la technique* in our civilization. Some celebrate it, others mourn it. It is hard to avoid at least acknowledging it, though some still try.   Technology affects *every aspect of our lives* and *every part of the world*. It is the defining characteristic of the general milieu in which we live and think. It is not just that technological tools and machines are *everywhere* but that technological rationality dominates our *every thought and activity* (political, religious, therapeutic, artistic, sexual and otherwise). In Neil Postman's term, we live in a "technopoly"---a culture surrendered to technology.[9]

Our schools are part of this culture of technopoly. They serve that culture. They respond to its demands and promote its beliefs and values. Thus, the meaning and morality that are part of the hidden curriculum of our schools and universities owe a great deal to the dominance of technology.   The dysfunctions and hard cases on the agenda of applied ethics are usually rooted in this dominance.

2.2 Technological Society Has An Implicit Morality

Some thirty-five years ago, in his introduction to ethics, *To Will and To Do* (1964; ET, 1969), Jacques Ellul analyzed the emergence and character of *technological morality*. His perspective remains illuminating and helpful as we think about education and technology, and meaning and morality, today. Morality, Ellul says, is a human creation. "In every case the origin of morality, of its authority and of its structure, lies with man himself. It is neither a divine gift nor a product of a higher nature over and above man."[10]

While individual philosophers have produced various *theoretical* moralities (which reflect as well as affect society to varying degrees), the *social* origins of morality are what really count. "The connection between morality and society is certain" (159ff.). No society can exist and develop without a morality. No society can operate without supplying its members with "a criterion of good and evil, a hierarchy of values, a list of imperatives, goals to be attained which are characterized as 'good,' a definition of the just and unjust, and prohibitions setting the limits to freedom of action" (160). All social groups, large and small, must develop some kind of moral structure such as this. There is a reciprocal relation here: morality sustains social groups and social groups sustain morality.

Such morality is never arbitrary but revolves around a "principal motif" in a given social group, a "chief center of interest, an undisputed assumption, a goal recognized by all" (164). This principal motif is always both ideological and material. It is bound up with a certain structure and it expresses itself in an aspiration. It is not a belief alone, nor is it a fact alone. It involves a combination of the two. It is in relation to this principal motif that the group's hierarchy of 'values' is arranged, and that the striving toward the desirable and the imperatives of the obligatory are established (164).

It comes as no surprise that Ellul sees technology and technological progress as the principal motif of modern society.   Technology now "informs the whole of public, professional, and private life" and an appropriate new morality is being created. "We are entering into a new form of morality which could be called technological morality, since it tends to bring human behavior into harmony with the technological world, to set up a new scale of values in terms of technology, and to create new virtues" (185).   In this morality, the ultimate good is technique itself. Our contemporaries are "very generally convinced that technique is the good, that it concurs in man's good, and will bring about his happiness" (189). Technology sits atop the scale of values; it is not just a fact, it is a value. For people today technology is "not merely an instrument, a means. It is a criterion of good and evil. It gives meaning to life. It brings promise. It is a reason for acting and it demands a commitment" (190-91). The evidence for this is partly to be seen in the desire and admiration people feel for technology. In addition, "whenever anyone suggests that technology presents certain disadvantages people rush to its defense. . . .This good is set

forth as a thing not to be challenged. . . One can call everything in our society into question (including God), but not technology" (191).

What are the basic characteristics of this technological morality? Since technology is precise, exacting, and efficient---it demands of people that they be *efficient, precise* and *prepared*. A technological society demands *not just competence but dedication*. It puts "its blessing upon man's subjection to technological values and will make him a good servant to this new master, in trustfulness and loyalty, in the spirit of a service freely rendered" (187). It is a morality of *behavior, not of intentions*---it is solely interested in *external conduct* (older moralities often addressed intentions and attitudes as well). It is a morality that excludes questioning and rigorously commands the *one best way of acting* (older moralities countenanced the agony of moral quandaries and questioning).[11]

Normality is a value in technological morality. We are not called upon to act *well* (as in other moralities) but to act *normally*, to be adjusted. To be maladjusted is a vice today. "The chief purpose of instruction and education today is to bring along a younger generation that is *adjusted* to this society" (192).

Success is another value in technological morality.   "In the last analysis," Ellul says, "good and evil are synonyms for success and failure" (193). Morality is based on success; the successful champion is the moral exemplar of the good; if crime is bad it is so because "it doesn't pay," i.e., it is unsuccessful.

Work is a value in technological morality, and with it self-control, loyalty and sacrifice to one's occupation, trustworthiness in one's work, etc.. The older virtues having to do with family, good fellowship, humor, play, etc., are gradually suppressed unless they can be reinterpreted to serve the good of technique (e.g., rest and play are good if, and because, they prepare you for more effective, successful work).

Boundless growth is a value in technological morality---in the sense of continuous, unlimited, quantifiable expansion. "More" is thus a term of positive value and moral approval, as are the "gigantic," the "biggest." "In the conviction that technology leads to the good" there is no time or purpose for saying "No" or for recognizing any limits or for impeding the forward advance of technology (197-98).

Artificiality is valued over the natural; nature has only instrumental value. We do not hesitate to invade and manipulate nature---whether that is the space program, deforestation and industrial development, animal farming, water resource "management," genetic experimentation, or whatever. We have little respect for the givenness of nature in comparison to our valuing of the artificial.

Technological moral values, in general, are instrumental rather than intrinsic. Power and effectiveness are values. In short, we live in a civilization of technological means. The means (constantly augmented and proliferating) have become ends in themselves, insubordinate to anything but their own imperatives to growth.

These values become our principles and rules of decision and action (replacing such maxims as "Do unto others as you would have them do unto you," "Love your neighbor as your self," and "Treat others always as ends, never as means"). They become our virtues of character so that the good person is one who is a normal, adjusted, hard-working, successful creator and manager of the artificial (replacing the "just, wise, courageous, and temperate" classical ideal and the "faithful, hopeful, loving" Christian ideal).

2.3 Technology Serves As Our Locus of Sacred Meaning

There is a third factor, closely related to morality and society. This is the "sacred" (in turn, related to myth and religion). Just as the connection between morality and society is constant, the "bond between value and the sacred is rigorous rather than occasional." It seems "unbreakable" (156). In *The New Demons* (1973; ET, 1975), Ellul argued at length that the locus of the sacred today is technique, and that this is served by our myth and religion. Technology, then, is more than just the "principal, central motif" of society---it is "sacred."

Ellul defines the sacred in functional terms. We detect the sacred in the "standpoint" from which our culture "assigns meaning, purpose and limits."[12] A culture's choice of the sacred is not open-ended; it is radically conditioned by its milieu, by the greater forces and conditions which inevitably, inescapably impose themselves on the people.

In a world which is difficult, hostile, formidable, man (unconsciously, spontaneously, yet willingly, to be sure) attributes sacred values to that which threatens him and to that which protects him, or more exactly to that which restores him and puts him in tune with the universe (50).   The sacred "is a mysterious domain in which numerous unseen forces are presumed to act. It is the concentration of all

that threatens and saves man" (54).   It is "the unimpeachable, inviolable order to which man himself submits and which he uses as a grid to decode a disorderly, incomprehensible, incoherent world that he might get his bearings in it and act in it" (65).

The sacred is given absolute value. It is untouchable and cannot be called into question; criticism is not acceptable.   To establish something as the sacred is both "a despairing call for mastery over that which escapes [us], for freedom in the midst of necessity"---and "an affirmation by man of an order in the world" (50). The sacred furnishes us with reference points, a set of guidelines, a means to discriminate, a way to organize our action, a kind of "geography" of our space, an interpretation of our time, and a way of integrating individuals into the group.

For most of human history, nature was the milieu which became the origin and object of the sacred. Sometimes society also acquired a sacred character. Mythology and religion (e.g., Christianity after it was organized into a religion) assist peoples and cultures in navigating their natural and social terrain. Although the older forms of the sacred (embedded in nature and society) have now been demythologized and desacralized, Ellul argues that we are far from having a secular world. "For nearly a half century we have witnessed a massive invasion of the sacred into our western world" (64). Humans are "forced to create something to serve as a sacred" (65).

The "novelty of our era is that man's deepest experience is no longer with nature. . . From the moment of his birth, man lives knowing only an artificial   world. . . Man's fundamental experience today is with the technical milieu . . . and with society. . . Society now becomes the ground and the place of the forces which man discerns or feels as sacred, but it is a society turned technician, because technique has become the life milieu of man" (66). Scientific technology, the agent of desacralization of the old sacred, has become the new sacred.

Technology is now *felt* by the people as a sacred phenomenon: intangible, supreme, unassailable. "All criticism of it brings down impassioned, outraged, and excessive reactions" and even panic! (71)---just as infidelity and profanity toward the older gods was once intolerable.   For consumers, rather than a crucifix or sacred grove, it is things like the automobile, television, and computer that now symbolize and incarnate the sacred in everyday life; "everyone has the sacral feeling that no experience is worth anything unless they have these powers in their homes" (72).   The technicians who create technology carry out their work "adoringly" because it represents the domain of the sacred. "This somewhat mysterious, yet completely scientific power, which covers the earth with its radio waves, wires, and papers, is to the technician an abstract idol which gives him a reason for living, and even joy" (73).

Further, technology is viewed as "the instrument of liberation for the proletariat. . . . Technology is the god who saves" (73). Do we have medical problems? Technology will solve them and heal us. Technology will make us safe. It will protect us. It will provide for the needy. Do we suffer from drought? Not prayer but reservoirs, canals, cloud-seeding, and drought-resistant plants promise the salvation to which we instinctively now turn. The list of such examples of techno-salvation is endless.

Our cultural *myths* are related to the sacred.   Myth "can be formulated, developed, believed only in a sacral world. It is one of the expressions of the sacred, one of our points of reference for getting our bearings in the world" (121).   Myths have an explanatory function. They are also "motivating global images," in Ellul's definition. They incite to action, give meaning and guidance. The two primary myths today that serve the technological sacred are those of history and science. The myth of history is that all meaning is borne by history, within history and historical progress. There is no extra-historical reference that gives meaning. The myth of science is that modern science is the sole and sufficient key to all truth and all salvation.

Finally, Ellul points to the functionally *religious* character of technology. Religion (like myth) is an expression of the sacred. The older religions may be poorly attended and have little cultural influence. But our culture is by no means lacking in religion. Religion draws people together in a common worship of the sacred. In corporate worship, we can express our praise and thanksgiving, our awe and adoration for our gods. We can sit at the feet of our priests so that our minds are further enlightened and our hearts are more firmly and passionately fixed on our gods. We hear testimonies of miracles and of salvation provided by our gods. No profanity or unbelief can be uttered as we gather in faith, hope, and love. If this piety is failing us, it is our fault---which we should promptly confess, and then depart with renewed resolve to exemplary discipleship. The "church" of technology is crowded with passionate, faithful believers.

How shall we assess Ellul's account of technological religion, meaning, and morality? What Ellul described twenty, thirty, and forty years ago---the takeover of culture, of meaning, and of morality by technology---certainly rings true to my own experiences as a student, a high school teacher, a parent, and

a college professor. A powerful juggernaut insists that all truth is discovered or validated by science, that meaning, hope and salvation are to be sought in technology. Our working morality is a function of the possibilities and constraints of technology. While Ellul generally overlooks the positive contributions of technology, and the details of his arguments are often debatable, the general outlines of his approach are, I think, clearly on target.

Another observer of contemporary life and culture, Neil Postman, in *Technopoly: The Surrender of Culture to Technology,* underscores Ellul's argument that our culture is firmly in the grip of technology and that our thinking is imprisoned by scientism.   And in his recent book, *The End of Education,* Postman makes the point, as well as anyone possibly could, that religion is both inevitable and necessary in education, and that technology plays just such a religious role.

> *At some point it becomes far from asinine to speak of the god of Technology---in the sense that people believe technology works, that they rely on it, that it makes promises, that they are bereft when denied access to it, that they are   delighted when they are in its presence, that for most people it works in mysterious ways, that they condemn people who speak against it, that they stand in awe of it, and that, in the born-again mode, they will alter their lifestyles, their schedules, their habits, and their relationships to accommodate it. If this be not a form of religious belief, what is? (38).*

School is pointless and education ends, Postman says, without some worthy god (or gods) to serve, that is, without "a transcendent, spiritual idea that gives purpose and clarity to learning."[13] Another way of expressing this is to speak of a narrative, a story "that tells of origins and envisions a future, a story that constructs ideals, prescribes rules of conduct, provides a source of authority, and, above all, gives a sense of continuity and purpose" (5-6). "The purpose of a narrative is to give meaning to the world . . . The measure of a narrative's 'truth' or 'falsity' is in its consequences: Does it provide people with a sense of personal identity, a sense of community life, a basis for moral conduct, explanations of that which cannot be known?" (7). Among the gods/narratives of our culture and our educational institutions, Postman argues, the "science-god" and the "technology-god" dominate, but fail us as comprehensive sources of meaning and morality. Scientific truth and technological power are proving not to be adequate gods---and the personal and social dysfunctions they call for, come at a high price.

Richard Stivers has shown how a technological sacred and its morality must result in a dysfunctional, dehumanizing culture.[14] Every culture achieves a certain degree of unity in two related ways: (1) it attributes meaning to certain natural and human activities and relationships so that the negative side of life, such as with suffering and moral evil, can be confronted, and if not overcome, at least resisted by the positive side as with service, friendship and love; (2) it places some limitations on the exercise of power---political, economic, technical, personal---thereby preventing a war of all   against all . . . and allowing societal members to know what to expect of each other (73).

Following Ellul, Stivers argues that authentic meaning is undermined when technique dominates culture because (1) human relationships become abstract (because mediated increasingly by techniques), (2) human activity becomes trivial (because of the growing power of technique and the suppression of human creativity), and (3) social action becomes ambiguous (because of the decline of moral limits essential to community). "All moral values place some limits on the exercise of power, collective and individual" (75). Freedom and friendship, for example, are meaningful only in relation to limits. When technology becomes sacred, when it becomes "technopoly" (in Postman's terms), the ultimate value in the morality has become the will to unlimited power, to the transgression of all limits.

In this context, human social action becomes ambiguous and uncertain. Life is chaotic and relationships competitive and meaningless. False meaning is offered in the form of consumption. Advertising serves the promotion of false meaning through consumption (e.g., the car will make you powerful, the cologne will make you sexy and attractive, the soft drink will make you happy, the beer will bring you friends). These are false symbols, false meanings: they cannot deliver what they promise. Our meaninglessness and moral anomie are only thinly masked and intermittently distracted by our enclosure in a world of total advertising.

Let me summarize the argument, thus far: human beings, persons, not only have to satisfy the material necessities of life, they not only have to work and make things to fulfill their humanity, they are also irreducibly moral beings and meaning-seekers. Despite their frequent claim to provide value-free or value-neutral instruction, and despite their reticence to engage in the great religious and metaphysical discussions of the meaning of life, despite this, schools are in fact teaching both meaning and morality.

There is a hidden but powerful curriculum which treats technology as the sacred source of meaning and which promotes a new technological morality. This is the first "contribution" of technology to the task of educating for meaning and morality. At best, this is an ambiguous contribution (it's better than Nazism; it is totalitarianism with a "velvet glove" anyway) and, in Postman's phrase, a "Faustian bargain." At worst, it is an enslaving idolatry made all the worse by the refusal of its priests and cheerleaders to acknowledge it as such.

3. The Crisis of Meaning and Morality in TechnoEducation: What Can We Do?
3.1 Addiction and Recovery

Technology is constituted by a vast constellation of artifacts, practices, and attitudes. It is naive to think that (or speak as though) this ensemble will be modified or redirected either easily or soon. Nevertheless it is not naive or futile to examine our personal practices and attitudes, and those of the smaller communities and institutions of which we are a part. Ellul (and Ghandi) often said, "Think globally, act locally." We must not be paralyzed by the scope of the global challenge. The social influence of an individual or small group organized intransigently around a truth they have discovered must not, from a historical perspective, be gainsaid. But even if that social influence were nil in the larger perspective, truth, hope, freedom, meaning, and goodness are their own reward for those who seek them.

One helpful way to think of our situation is to reflect on the well-known contemporary challenge of addiction and recovery, especially as it is experienced in "12 step" groups like Alcoholics Anonymous.[15] We---our culture, our educational institutions, and sometimes ourselves---are addicted to technology; we are obsessive, compulsive, out-of-control, and "codependent" with each other. As alcoholics are obsessed with arranging for their next drink, so our educational institutions obsess about wiring the campus, upgrading hardware and software, pushing workshops on techniques/technologies of all kinds, getting students on-line and connected to the information superhighway, etc., etc.. As alcoholics neglect other things (and people), as they redirect their finances and their schedules---so with "techno-holics." Something good (an '82 Bordeaux, a '93 Napa Zinfandel, a pet cat, the Oakland A's, PBS, etc.) is immersed into the sea of a dangerous addiction and enslaving obsession.

But the alcoholism analogy has a major flaw: you can live without alcohol and the therapy must and can aim at total abstinence. But we cannot live without technology; total abstinence is out of the question. A better analogy is with obsessive over-eating (a vice to which I can relate). We can't live without food---or technology. But uncontrolled binging will at least make us unhealthy, and it may kill us. One of the mottos of techno-holism is "if it can be done, it will be done"---just as food-aholics live by the motto "if it can be eaten, it will be eaten." The problem is not food, it is "food-opoly," "food-aholism," "foodism." The problem is not technology, it is technopoly, techno-holism, technologism. If you can't look at or walk by food without sampling (or stuffing) it, you're a food-aholic. If you can't look at or hear about technology without wanting it or getting it (to the maximum of your budget or credit line), you're a techno-holic. As discussed earlier, a serious problem caused by this addictive behavior is that meaning and morality are imprisoned in this oppressive and reductive milieu.[16]

3.2 Awareness & Responsibility

I will not review all twelve of the steps in the "recovery process" but concentrate on four key points. One of the first recovery steps is for the addict to name the demon and accept responsibility. Jacques Ellul has said that the first duty of an intellectual (a thinking, reflective, self-critical person) is *awareness*.[17] Our situation can be improved only when we face up to reality. As educators, we must seek a true awareness of ourselves, our practices and attitudes---and prod our colleagues, leaders, and students to do likewise. This is not easy---but neither is it impossible.

In spite of the serious, unremitting pressures we feel to invest ourselves wholly, to the point of exhaustion, in mastering detailed, specialized facts and skills, we must carve out space and time to examine the deeper, broader "maincurrents" under the surface of our daily experiences (and the blizzard of news briefs, sound bytes, and factoids coming our way). We must also carve out space and time to get to know the personal, lived reality of some of our flesh-and-blood neighbors, students, and colleagues. These are the two avenues to awareness of reality (our milieu, our "sacred" center, our values and direction).

In practice this means reading and attending to (and assigning to our students!) longer, more substantive arguments, analyses, reports, and works---and eschewing the easier diet of decontextualized data, blurbs, excerpts, summaries, opinion polls, and news-briefs. It means asking questions that go

below the surface: What is it that we treat as sacred in society? in our school? in our business? in our career? Do you agree with this choice---or is something else sacred to you personally? What did people used to treat as sacred? Why did we change? Was this a good trade-off in your opinion? Is this progress? Are we better off with this new sacred center of meaning and moral values?

    To put it in other language, what is the mission, the ultimate goal, purpose, and Good, that we (or our society) are pursuing? What have been the ultimate missions or purposes of some other cultures or epochs? To be specific, what is sacred in philosophy? in nursing? in business? What is the goal, the purpose of it all? What drives it and draws it?   Does it make sense to say that technology or technological progress and development is sacred today? Money? Sex? Pleasure? Security? Power? The glory of God? Friendship? Something else?

    Given this or that sacred center, what would be the personal (or institutional) character traits required to achieve our ultimate purposes? What kind of person (or business or organization) would be most successful at serving this final Good? What kind of personal (or corporate) character traits would undermine such achievement? What kind of principles or rules of decision and action would be important in achieving these different ultimate goals? Would the Golden Rule help? The principle of utility? or Egoism?

    By taking the time to raise these questions, in the venerated tradition of Socrates---and by humbly revealing our own (provisional or settled) perspectives on these issues---we can journey toward awareness. If technology is our sacred center (our "god"), if technological morality is our guide, let's at least be aware and honest and acknowledge it for what it is. If technology does not serve in this central way for everyone, it remains all to the good to bring to the surface its alternatives.   I do not think that such questioning should be restricted to ethics and philosophy courses. In all courses and fields of study, in administrative committees as well as in classroom settings, these important questions need to be raised.   Awareness is our first and permanent professional and pedagogical goal in education.

    With awareness comes evaluation. What are the costs and benefits of our choices of gods and goods? to our identity and personality? to the environment and the next generation? to our neighbors near and distant, rich and poor? In light of these impacts, are these gods and goods truly worthy of our loyalty? With awareness and critical evaluation come responsibility. An addict cannot begin the road to recovery until the demon is named and responsibility is accepted. Again, it is not food, it is "food-aholism"; it is not technology, it is "technopoly," or "techno-holism."

3.3 Finding A Higher Power

    We have all heard the maxim that "nature abhors a vacuum"; the meaning and morality enterprise also abhors a vacuum. An alcoholic or food-aholic cannot dethrone the alcohol-god or the food-god without finding some higher power to rule over it; the techno-god will not evacuate the throne without a higher power put in its sacred place. Our students will not let go of their gods unless they can discover a better alternative. With regard to technology, the challenge is not to kill it but to move it from the throne to the "tool box" of our lives.

    To be sure, there may be a time to attack and mock a false or predatory god. To get free, we may need to taunt it, profane it, take its name in vain, commit sacrilege, and brashly break its commandments. Words must be accompanied by actions. Choosing not to upgrade our computer when we could, declining to watch television, forbidding on-line research for a paper, sneering at and ignoring SAT scores (and their "re-norming") as a definition of student ability---these are some meager ways of saying "No" to the techno-god. As Ellul has written, "saying 'No'" is an act of freedom.

    But this is still only the negative task. We still need to find a higher power. A serious look at traditional religious and metaphysical alternatives is not only to present options but to spark the imagination.[18] E. F. Schumacher's essay on "Buddhist Economics" in *Small is Beautiful: Economics as it People Mattered* is a nice sample of alternative higher power thinking.[19] Professors can be models by sharing their own pilgrimages with the sacred (of whatever type). This can give students hope that when a false god is evicted from the throne, a life-affirming replacement can be found.

    This is a critical point: technology can be a great aid in our tool box but it is a terrible god. We cannot transform and redeem our culture of technopoly in the foreseeable future---but we can change our own attitude and practice and rigorously subordinate technology to a higher power in our lives. And perhaps we will see it happen on our committee or in our department or classroom.

3.4   A Community of Support and Accountability

After the cultivation of awareness and acceptance of responsibility, after finding a higher power, the addict next needs to join a community of support and accountability. Alcoholics Anonymous members attend meetings of fellow-addicts, sometimes weekly, sometimes almost daily. Without such support and accountability most would fail to recover.

Those who wish to dethrone technology will often be scorned and ridiculed as Luddite reactionaries by the throngs of cheerleaders for technopoly. We are surrounded by a sea of propaganda for technology. Even though there is no research to show that students benefit from computerized, on-line gadgetry, schools and universities blindly charge ahead, diverting their limited financial resources from teachers (about whom a great deal of research indicates their value) to computers.[20] An isolated resister is imperiled---tolerated, at best, as a quaint, amusing relic of the past.

Those in recovery from techno-holism need a community of accountability and shared struggle. Where we live and work we must promote non-computer-mediated friendships and community experiences. As Ellul pointed out, morality and the sacred are socially-constructed. If we don't build and sustain an alternative social group we are like food-aholics who try to recover in 24-hour, all-you-can-eat, buffet restaurants, or alcoholics who try to recover by hanging out in bars. Actually, our culture *is* an inescapable, 24-hour, all-you-can-eat, technological buffet! But we can invite a few other friends "in recovery" to sit with us at a table a little removed from the buffet line.

3.5 Getting A Life

Our resistance groups cannot limit their agenda to flogging the technological beast. I am not sure whether 12-step groups have a "life" together beyond the honest sharing of struggles and stories about their addictions (some no doubt do). I am sure, however, that a food-aholic, an obsessive overeater, needs to rebuild a life in which food is only one, honorable but limited, part of a richer pattern of existence. Rather than focusing only on food (as celebration, as consolation, etc.), the recovering food-aholic must discover the joys and consolations of music, of friends, of silence, of sport, of reading, and so on. Without this richer fabric or texture to life, food will continue to dominate the mind, and then the activity.

So too, with techno-holism: reading and writing, playing, hanging out with friends, athletics, dancing, building something, collecting something . . . techno-holics need to "get a life."[21] This points to one of the greatest dangers in "distance-learning" based almost entirely on a model of isolated individuals being "educated" on-line. Even if assignments include reading books and interviewing people, even if some interaction with teachers and fellow-students occurs in "real time," educational community is ephemeral, superficial, and disembodied. Meaning and morality are socially-constructed; the thinness of social interaction on-line bodes ill for the distance learner in terms of a meaningful and morally-rich education.

Learning will always require substantial periods of individual quiet for reading, thinking, and writing. But if that is augmented increasingly or almost exclusively by firing up the computer and logging-on, something of incalculable value will have been lost. Students need to have long, impromptu discussions into the night---bull sessions and arguments that go their serendipitous ways. Moreover, they need to joke and play, cry and pray, build and travel together---to enjoy the richer fabric of a social life that will give substance and texture to their intellectual growth, to their acquisition or construction of meaning and morality.

3.6 Technological Tools for Recovery?

Let us say, hopefully, that we are on the way to recovery from what I have called "techno-holism." Let us say that technology is moved from the throne of life to its tool box. Can it serve as a tool assisting our responsible awareness? Can it help us find and serve a worthy higher power? Can it contribute to community and to a richer life? I believe it can, but only if its limitations are seen as clearly as its potential.

Undoubtedly electric lights, heating systems, transportation technologies, printing and distribution systems, and the like can bring us into contact with sources of true awareness of our world, its sociological maincurrents and our living neighbors. Information technologies can connect us to music, to written resources, to lists of events, people, and groups of value in our recovered life.

Jeff Zaleski's recent book *The Soul of Cyberspace* reviews the experiences of old and new religious groups with computers and the internet.[22] His observation: the internet serves well as a source

of (at least) entry-level information about religions, their basic beliefs and practices, the places one can go to meet some live adherents. Some curious inquirers can get information and even ask (and have answered) some of their questions when a physical disability or personal reticence might have otherwise prevented such initial contact in the flesh. At the same time, Zaleski concludes that any "virtual" community is a pale imitation of the real, face-to-face thing, partly because one can be anonymous, dishonest, or drop in and out in ways not possible in real community. The medium also affects the message in critical ways: it makes religion anarchistically democratic and individualistic (hierarchy and community don't communicate well on the internet); it disembodies religious experience (it privileges ideas and mind over body and sacrament); and there is no evidence that any sort of mystical energy or spiritual force can be transmitted.

And still, many of us can attest to the value of e-mail for initiating or helping to sustain communications with colleagues and friends and certainly there is a lot of valuable information to be acquired on the Internet if one is careful. Many technologies can and do serve us well as tools in our quest for a meaningful and morally good life. Computers and information technologies are among those helpful tools. They, and all technologies, can be good servants in a life that is responsibly aware of reality, that occurs within meaningful relationships to a power higher than technology and to a community of friends. Computers work best as *supplements* to such a living reality; they work worst as a *replacement* virtual reality.

The quest for meaning and morality is not the whole story of what it means to be an educated person---but it is a central and critically-important concern. If we do nothing about these great questions of meaning and morality in education, they will almost certainly be shaped by our techno-holic culture. And this is an irresponsible default and betrayal of our vocation as educators, leaving our students at the mercy of a narrow, dehumanizing addiction.

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[1] Ivan Illich, *Deschooling Society* (New York: Harper & Row, 1970).

[2] An eloquent statement of such concern is given by Merold Westphal, "Academic Excellence: Cliché or Humanizing Vision," in David W. Gill, ed., *Should God Get Tenure? Essays on Religion and Higher Education* (Grand Rapids: Eerdmans, 1997), pp. 27-40.

[3] These quotations are from Dennis O'Brien, "The Disappearing Moral Curriculum," in *The [Phi Beta Kappa)]Key Reporter,* 62.4 (Summer 1997), p. 1.

[4] "Values on Campus: Ethics and Values Programs in the Undergraduate Curriculum" by Bruce Jennings, James Lindemann Nelson, & Erik Parens, a Report from The Hastings Center, Briarcliff Manor NY (1994), p. 3; a comprehensive account of this history is given by Douglas Sloan, "The Teaching of Ethics in the American Undergraduate Curriculum, 1876-1976," in *Ethics Teaching in Higher Education,* Daniel Callahan & Sissela Bok, editors (Hastings-on-the-Hudson: The Hastings Center, 1980), pp. 1-57.

[5] Cf. Stephen L. Carter, *The Culture of Disbelief* (New York: Basic Books, 1993), p. 56. See also David W. Gill, "Ethics With and Without God," in Gill, *Should God Get Tenure?,* pp. 129-45.

[6] But if schools and universities won't sponsor (or allow) civilized debate and interaction about our most profound commitments (e.g., religious and moral values) they are effectively pushing such conflict out into the streets, and then into the courts and the political process. And that is a recipe for oversimplication and stereotypes, misunderstanding, distrust, political partisanship, and violence. Two cheers for postmodernity if it invites our particularities back into legitimate discussion! (The third cheer will only be given if postmodernity finds a way to help us live *together* in peace and truth without free-falling into solipsism).

[7] Ivan Illich, *Deschooling Society ,* pp. 48, 54.

[8] I mean "technology" in the sense Jacques Ellul gave to "technique"---the totality, the ensemble of "means" (tools and methods) characterized by rationality, artificiality, and the quest for efficiency. "Technology" in this broad sense refers to computers, cars, etc., but also to human technologies like psychotherapy, public relations, industrial management, etc.. Ellul didn't like the word "technology" because (a) it often had a restricted connotation of engineering and machines, and (b) its etymology implied "the study of technique" (as "biology" is the study of bios, and "theology" is the study of theos). As George P. Grant wrote, though, all of our techniques have become technologies in the sense that they are not merely traditional or intuitive but products of rational, scientific study and analysis. Cf. George P. Grant, *Technology and Justice* (Notre Dame: University of Notre Dame Press, 1986), pp. 11-13. In this essay on education, I am thinking about information technology (computers, etc.) above all, but I also mean academic fund-raising ("development") and recruiting ("marketing") techniques, standardized "objective" educational testing techniques, pre-fabricated, assembly-line student food services, and so on. The invasion of such techniques/technologies into education is massive (and mostly unquestioned). As I hope will be clear, I do not oppose all such tenchniques/technologies; I oppose the naive, uncritical, euphoric embrace of *technopoly*---and the blindness and denial of the price we are paying for it.

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

[10] Jacques Ellul, *To Will and To Do: An Ethical Research for Christians.* Trans. by C. Edward Hopkin. (1964; ET: Philadelphia: Pilgrim Press, 1969), p. 113. "The object of the moral life is *always* the fulfillment of what man in a given time and place calls the good" (114). According to Ellul, the moral phenomenon has both an objective and subjective side. "Objective" morality is "a system of values or of imperatives, whether formulated or not, which are set forth as possessed of an objectivity indispensable to all members of the group" (114). Its authority "always depends on an assertion of practicality," i.e., this guidance will help achieve the good.

The objective side of morality consists of (a) "theoretical morality" (e.g., a moral philosophy or theology, often articulated by an intellectual authority), (b) "sociological morality" (a broad assemblage of values and imperatives related to the preservation of the group or the attainment of some ideal image, an expression of a collective conviction held by the group), and (c) "moral custom" (a complex of traditional guidance more important than simple etiquette, though less rigorous and direct than the requirements of the sociological morality).   The "subjective" side of morality consists of (a) the phenomenon of individual conscience (a kind of intuitive moral discernment and motivation, of unknown biological or social origins), and (b) "choice or decision" (the experience of ethical situations requiring the individual to decide and act).

The "moral phenomenon," Ellul says, is "the *ensemble* of these constituent parts"---which are mutually complementary. It is a mistake, then, to treat morality as a question only of philosophical systems (e.g., Kant, Aristotle)---or only of the sociology of values---or only a matter of existential decision. To understand morality we must look at all of these components. On Ellul's ethics see David W. Gill, *The Word of God in the Ethics of Jacques Ellul* , (Metuchen NJ: Scarecrow Press, ATLA Monograph No. 20, 1984).

[11]Of course, the quandaries addressed by today's applied ethics are often agonizing. The point is that we might have agonized a little earlier and deeper in the process which eventually terminated in a painful, hard case. We did not; we plunged ahead as though all these processes and choices were morally "neutral" (i.e., "good").

[12]Jacques Ellul, *The New Demons* Trans. by C. Edward Hopkin (1973; New York: Seabury, 1975), p. 49. The metaphor of "the new demons" comes from the story told by Jesus of someone who was exorcised of a demon, only to find himself occupied by several demons worse than the one evicted.   Thus, the old "demon" of Christendom has been tossed out; but the house is not empty---it has been occupied by Technique (along, Ellul says, with the idolatry of the Nation-State).

[13]Neil Postman, *The End of Education* (New York: Alfred A. Knopf, 1995), 4-5.

[14]Richard Stivers, "Technique Against Culture," *Bulletin of Science, Technology & Society* 15:2/3 (1995): 73-78. See also Stivers, *The Culture of Cynicism: American Morality in Decline* (Cambridge: Blackwell, 1994).

[15] I can't stand "psychobabble" and I don't often admire modern therapeutic approaches. But I think the 12-step approach works here (as it does for many alcoholics and others).

[16]This is, of course, not the only problem. Technopoly is also devastating our natural environment, threatening our physical health, fomenting violence and anger among the nations, producing vast inequalities of rich and poor, and dumbing down our politics.

[17]cf. Jacques Ellul, *The Presence of the Kingdom*   (1948; ET, Colorado Springs: Helmers & Howard, 2nd ed., 1989), pp. 81ff.

[18]Neil Postman discusses the importance of such exposure in *Technopoly*   (pp. 171-99) and *The End of Education* .

[19]E. F. Schumacher, *Small is Beautiful: Economics as if People Mattered* (New York: Harper & Row, 1976).

[20]See Todd Oppenheimer, "The Computer Delusion," *The Atlantic Monthly*   280.1 (July 1997): 43-62.

[21]One of the best essays on this subject is by information technology pioneer Clifford Stoll, *Silicon Snake Oil: Second Thoughts on the Information Highway* (New York: Anchor Books, 1995).

[22]Jeff Zaleski, *The Soul of Cyberspace* (San Francisco: HarperEdge, 1997); see also Stephen D. O'Leary, "Cyberspace as Sacred Space: Communicating Religion on Computer Networks," *Journal of the American Academy of Religion* 64.4 (1997): 781-808.