Social Engineering in the Information Age

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This article explores the relevance of social engineering for the postindustrial epoch. The concept of social engineering has been dormant in recent years, stained by the behavior of police states in the 20th century. Yet stripped of its excesses, social engineering still represents a defensible moral and political enterprise. What is needed for the 21st century, however, is a chastened, deontological theory of social engineering, one that accepts the inviolability of the person while still pursuing ambitious long-term teleological strategies through state action. For its content, progressive information society policy should revisit the ethical norms developed by the left-liberal tradition, as articulated by the late John Rawls and others. The article concludes that the information age offers a new opportunity to engineer a just social order, or, at any rate, that the policymaking community needs to reevaluate the idea of social engineering.

Keywords: deontology, information society, left-liberalism, policy-making, social engineering, teleology

Social engineering had a singularly bad press in the industrial era. Not only that, but it also came to be regarded—even by those whose interests it might be thought to advance—as bad politics. These developments were probably causally related: Social engineering came to be stereotyped as a form of extremism, and extremism is electorally unpopular. Specifically, social engineering has been identified in the public mind with grandiose but flawed sociopolitical designs, with crowbars and other tools of procrustean coercion, with eugenics, the subordination of humans to machines, roads to serfdom, slippery slopes to totalitarianism, and all the rest. It became what emotivist philosophers used to call a "boo" phrase, one whose very utterance indicates moral disapproval, so it is hardly surprising that few pundits or politicians have wished to foreground the concept in recent years. Nevertheless, my intention here is to defend social engineering and to begin to unfold its relevance for information society policy in the 21st century. The term is certainly problematic, and there are undeniable risks in placing such an easily abused idea on the information society agenda, but the basic theme of long-range teleological politics is, it seems to me, a proper one. It is eminently arguable that the bane of contemporary politics is precisely their chronic short-termism, their lack of vision for long-range projects in pursuit of human well-being. What we require, therefore, is the formulation of a conception of social engineering liberated from its negative associations, one that charts a path and destination for the age of access while respecting democratic norms and what is characterized later as the deontological turn in moral-political philosophy.

As this article interprets it, such a task necessitates a judicious synthesis of information society studies (Duff, 2000, 2001, 2003, 2004; Webster, 2004) and some of the more durable ideals of left-liberal politics. That is to say, progressive socioeconomic values such as equality and distributive justice, subject to a framework of political liberty, need to be built into the structure of information societies by means, partly, of social engineering. In some ways, this demand is quite unoriginal. Many measures that have been discussed in recent years in forward-looking information policy circles, such as plans to increase the number of women in computing or to open up the Internet to entire populations, can be interpreted as implicit appeals to forms of left-liberal social engineering. However, it is probably accurate to say that references to social engineering have hitherto tended to be far from explicit, systematic, or whole-hearted. As a dedicated treatment of this theme, therefore, the argument that follows is offered as an attempt to fill one of the gaps in an otherwise extensive normative literature surrounding the information society. The article begins with some preliminary historical observations regarding the idea of social engineering and also its current treatment by specialists. In the main section, some guidelines are set out for a general postindustrial theory of social engineering; these represent, hopefully, a...
step on the way to a normative theory of the information society. It should be emphasized that what is propounded next represents work in progress, a set of germinal ideas whose function will be amply served if they stimulate a new level of discussion about the future of information society policies; I hope elsewhere to be able to flesh out the arguments in a much more systematic and rigorous form (Duff, forthcoming).

**PRELIMINARY OBSERVATIONS**

It is important to begin with definitions. In familiar Internet usage, the term *social engineering* has been adopted as hacker-speak for tricking a person into revealing their password. Our concern here, however, is exclusively with social engineering in its more traditional sense as a macro-level normative-sociological practice. The *Fontana Dictionary of Modern Thought* defines it as “the planning of social change according to a blueprint, and the associated technology of social design and manufacture” (Bullock et al., 1988, p. 784). The definition is representative, as are cross-references to utopianism, technocracy, genetic engineering, and eugenics, all indications of its ethically dubious associations (compare, e.g., Scruton, 1983, p. 432). However, the dictionary concedes that social engineering has been approached in very different ways, and concludes helpfully that “given this confusion, the term may be regarded as a floating resource in ideological discourse” (Bullock et al., 1988, p. 785). As such, social engineering can presumably be rescued from the perils into which it drifted in the industrial era.

The benchmark work was Karl Popper’s *The Open Society and Its Enemies* (1966 [1945]). In one of his copious footnotes, Popper supplied some useful etymological information. Invention of the term *social engineering* is usually credited to Roscoe Pound (1922, p. 99), but Popper suggests that the Webbs may have used it before then; as early exponents of long-range left-liberal politics, Sidney and Beatrice Webb are indeed appropriate citations (compare, e.g., Scruton, 1983, p. 432). However, the dictionary concedes that social engineering has been approached in very different ways, and concludes helpfully that “given this confusion, the term may be regarded as a floating resource in ideological discourse” (Bullock et al., 1988, p. 785). As such, social engineering can presumably be rescued from the perils into which it drifted in the industrial era.

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Bringing the discussion up to date, one who has bucked the contemporary trend of treating this as a taboo subject is the Polish–Canadian scholar Adam Podgorecki. In fact, Podgorecki has rather cornered the intellectual market by inventing an interdisciplinary field specifically geared towards the study of social engineering, namely, *sociotech-nics* (Podgorecki, 1996). Podgorecki and his colleagues define social engineering as “arranging and channelling environmental and social forces to create a high probability that effective social action will occur” (Alexander & Schmidt, 1996, p. 1). They make a firm distinction between social engineering “sensu stricto,” which is based on tested theorems about human behavior, and pseudo-scientific social engineering “quackery,” for which they cite Marxism–Leninism as an example. And yet some of their own distinctions appear fuzzy and even wrong-headed. They cast aside as ideologically driven an early Soviet attempt to liberate Central Asia from the horrors of marriage-by-abduction and wife-killing, while lauding comparatively trivial Western achievements such as anti-smoking campaigns (Podgorecki, 1996; Hay, 1996). Indeed, what can we make of a research front that issues in the claim that “today the United States is leading us all into a new world of innovative social engineering based upon high technology and motivational psychology” (Alexander & Schmidt, 1996, p. 3)? Nevertheless, Podgorecki and his circle are to be applauded for attempting to think seriously and positively about social engineering.

Building on such foundations, social engineering is construed here as a long-range strategy for the imposition of a just pattern on society, through smart laws, public investment, mass education, and the like. As such, it requires what all engineering requires, an expert search for the optimal mix of variables to secure a desideratum. To illustrate: Edward Wenk, science advisor to Kennedy, Johnson, and Nixon, explains how the engineering of submarines revolves around a basic tension between safety, which requires heavy hulls, and maneuverability, which requires light hulls—that is, a trade-off between risk and performance (Wenk, 1995, pp. 32–52). Social engineering is similar, a synthesis of the possible and the permissible in pursuit of the desirable. It is explicitly long-range, founded on what Sony executives call the principle of “ultra-long-termism” (Inoue, 2003, p. 44), a time frame that distinguishes it from other forms of social policy. Additionally, and crucially, social engineering involves a willingness to contemplate the use of an element of coercion of the will. That is the reason why the hard metaphor of engineering arises, and why the practice has been so controversial. Yet the historical record is not entirely hostile. When the great Liberal politician David Lloyd George laid down the first ever national sickness and unemployment insurance scheme in the teeth of opposition from both workers and bosses—it required sacrificial compulsory contributions from each side (Grigg, 2002, pp. 313–351)—he was carrying out a vanguard politics of coercive long-range planning, an act of social engineering. And the United States has its own illustration in the GI Bill, more accurately the Servicemen’s Readjustment Act of 1944, which by providing for federal subsidization of college education
for millions of ex-servicemen engineered a vast expansion of the American middle class. In Popperian terms, these beneficent measures would probably be classified as piece-meal (Popper, 1966 [1945], vol. I, p. 159), but they clear the way for a less prejudiced view of social engineering.

Daniel Bell, the leading figure in information society studies (Duff, 1998), has long been setting the intellectual stage. He asserts repeatedly that advanced nations now possess the technology—not only physical tools like the computer but also a range of intellectual technologies such as game theory and econometric modeling—to plan a just society (e.g., Bell & Graubard, 1997 [1967]). Our horizons have been significantly enlarged:

Society itself becomes a web of consciousness, a form of imagination to be realized as a social construction. Inevitably, a post-industrial society gives rise to a new Utopianism, both engineering and psychedelic. Men can be remade or released, their behavior conditioned or their consciousness altered. The constraints of the past vanish with the end of nature and things. (Bell, 1999 [1973], p. 488)

Yet there was always in Bell’s writings a countervailing note of caution. He follows the passage just quoted, concluding his magnum opus The Coming of Post-Industrial Society by reminding us of mankind’s “murderous aggression,” and counsels against what he calls the modern hubris of attempting to “cross the gap and embody the ideal in the real” (Bell, 1999 [1973], pp. 488–489). Bringing these formal preliminaries to a close, I would suggest that the challenge for a contemporary theory of social engineering is precisely to find a wise path between the Charybdis of technological utopianism and the Scylla of political pessimism and timidity. The following section tries to sketch the main features of such a theory.

OUTLINE OF A POST INDUSTRIAL THEORY OF SOCIAL ENGINEERING

The cornerstone of a theory of social engineering for the postindustrial epoch, if it is to have any hope of wide acceptance, must be an acknowledgment of what is enduringly valid in the Popperian critique of the totalitarian state. Writing in 1945, Popper articulated nonnegotiable truths regarding the political foundations of an open society, truths that are vital to the future of democratic freedom. However, although The Open Society and Its Enemies is often cited as an historic statement of social democracy (e.g., Durbin, 1984, p. 324), its warnings against ambitious social engineering went too far, betraying a mind set closed to the most promising paths of social development. Of course, it is easy to understand why ultracautious conclusions might be arrived at by a humanitarian intellectual during the ascendency of Hitler and Stalin, the nightmare epoch that saw scientific and technical knowledge being utilized barbarously by regimes of the extreme left and right. Yet Popper was basically confusing political idealism with totalitarianism in his central claim that “the Utopian attempt to realize an ideal state, using a blueprint of society as a whole, is one which demands a strong centralized rule of a few, and which is therefore likely to lead to a dictatorship” (Popper, 1966 [1945], vol. I, p. 159). This inevitably results in the stifling doctrine that “state power must always remain a dangerous though necessary evil” and that, therefore, “state intervention should be limited to what is really necessary for the protection of freedom” (Popper, 1966 [1945], vol. II, p. 130). Left-liberalism must aspire to a much more positive philosophy of the state than that. At its best, its position has always been that while protection of liberty is the first duty of the state, economic and social justice remain legitimate, indeed obligatory, targets for interventionist politics. Social engineering must confront postindustrial challenges on the confident premise articulated by R. H. Tawney in his classic essay on the postwar Labour government, perhaps the most successful social engineering administration in democratic history:

The State is an important instrument; hence the struggle to control it. But it is an instrument, and nothing more. Fools will use it, when they can, for foolish ends, and criminals for criminal ends. Sensible and decent men will use it for ends which are sensible and decent. We, in England, have repeatedly re-made the State, and are re-making it now, and shall re-make it again. Why, in heaven’s name, should we be afraid of it? (Tawney, 1964b [1949], p. 164)

Social engineering should now also become rooted in a deontological ethic, that is, in the doctrine that certain moral rights must be respected regardless of consequences. “If slavery is not wrong, then nothing is wrong,” said Abraham Lincoln, and he held to such absolutism even though for a time it split his nation in two (see Sandel, 1996, pp. 181–183). For most of the 20th century, on the contrary, teleology was the dominant strain in political theory and practice, conspicuous in both fascism and communism. Though divergent in other respects, such ideologies agreed in sanctioning the violation of individual rights for the sake of a political end, such as social order or the putative progress of society as a whole (e.g., Fisk, 1980, p. 209). Thankfully, that current has been increasingly thwarted by the recent deontological turn in moral and political philosophy, largely as a result of the publication acknowledged in Anglo-American circles as the finest work of normative theory since Kant: Rawls’s A Theory of Justice. The Rawlsian thesis, in essence, was very simple:

Each person possesses an inviolability founded on justice that even the welfare of society as a whole cannot override. For this reason justice denies that the loss of freedom for some is made right by a greater good shared by others . . . . The rights secured by justice are not subject to political bargaining or to the calculus of social interests. (Rawls, 1973, pp. 3–4)
It must be readily admitted that social engineering has an inherent teleological logic, since it is interested in the shaping of the long-term future, a set of social goals. To be acceptable henceforth it must register this deontological turn. It must become anchored in the absolute ethics that underpin the dignity of the individual.

Moreover, a new postindustrial paradigm of social engineering must respect the family. Nothing has done more to bring social engineering into disrepute than the way in which the state has sometimes tried to usurp the role of parents—a theme, of course, of dystopian science fiction (e.g., Forster, 1928; Huxley, 1932). Kathleen Csaba (1996) provides a salutary case study of such “dark” social engineering under Soviet police collectivism, detailing the tragic story of a small boy lionized by the authorities for betraying his politically incorrect parents. It is probably correct to say that most civilized people are revolted by the idea of state committees rearing the young. The personal freedom to marry, to have children, to see them grow—or to choose not to do these things—is accepted in most of the world as a sacred right. To deny someone this right is to rob him or her of a core part of their freedom of action (see Morse, 1999). So postindustrial social engineers need to tread much more carefully on the family front than many of their precursors did. And responsible social engineering, after the deontological turn, can hardly seek the creation of a new species, cyborg or otherwise, after the manner of popular cyberpunk visions.

Also, being by definition a long-term project, social engineering must incorporate a principle of generational justice. No generation has stronger moral claims than others, and deontologically based social engineering would therefore expressly forbid the suspension of the rights of the living in the name of the projected welfare of a future generation. Postindustrial social engineering must indeed be gradualist, a term given useful political meaning by the Fabian tradition in British left-liberalism (McBriar, 1966, p. 99). That is to say, it will not try to reconstitute a whole society overnight, but seek rather a number of “decisive and unmistakable victories at a few well-chosen points” (Tawney, 1964a, p. 205). Nevertheless, while social engineering should not be maximalist or revolutionary, it may work, as the Fabians certainly did, from a conception of an ideal society—from a dreaded blueprint—rather than in an ad hoc or piecemeal manner. It is in the use of such guides to the future of society, and the taking of decisive and even irreversible steps to implement their prescriptions, that social engineering parts company with less adventurous forms of policy. While political recklessness is forsworn, political idealism, the spelling out of detailed conceptions of the good society, can survive.

Finally, the deontological turn (or return—it recovers much of the Judaeo-Christian ethic and its secular Kantian manifestations) cannot be permitted to exercise a wholesale veto on teleological political action. Social engineering must remain unashamedly proactive, predicated on the value judgment that society cannot simply perpetuate inequalities out of fear of slippery slopes to totalitarianism. Democracies must be ready to use robust state action for social ends, and to recognize that—within the limits set by deontologism—people may be persuaded, and sometimes even forced, to be free. This does not mean brainwashing or “attempts to outfox ordinary people and out-maneuver their established attitudes” (Alexander & Schmidt, 1996, p. 15). It does, however, mean that social engineers should defend their right to take measures to try to influence attitudes and behavior. In other words, a strategy for the imposition of a just pattern on society may sometimes still demand recourse to forms of vanguard politics. We must always strive for a more optimal mix between the maintenance of liberty and enduringly attractive teleological goals such as the elimination of poverty, prejudice, or class division—between political safety and socioeconomic performance, to recall Weng’s submarine metaphor. So is it not just timidity or intellectual laziness to keep insisting, as do conservatives and even many liberals, that the open society vetoes ambitious social engineering, and that that is the end of the matter? Obviously, much more would need to be said for a full articulation of a new paradigm of social engineering. Nevertheless, it is hoped that in broad strokes what has been said here is basically sound.

CONCLUDING UNSCIENTIFIC POSTSCRIPT

Perhaps many will remain unconvinced by the potential of the arguments sketched above, despite all the caveats. But as a parting observation I would suggest that this may in any case be a least—worst scenario. If social engineering is not implemented by the democratic state it will be implemented willy-nilly by private corporations exploiting the normlessness of the info sphere; we have perhaps already seen some of that in the attempts to patent the human genetic code. The state surely remains the only realistic counterpoint to the power of market organizations to bend consumers to their needs (see Sawhney, 2003, p. 330). We need, therefore, as a pragmatic consequence, to engage in democratic social engineering. It should be grounded firmly in deontologism, renouncing forever what Soren Kierkegaard famously called the “teleological suspension of the ethical” (Kierkegaard, 1968 [1843], p. 64), but it should be adventurous, nay futuristic, nevertheless. Whatever else it may or may not be, the emergence of the information age is a propitious historical moment for revisiting the dormant tradition of social engineering. And even if the case for postindustrial social engineering is ultimately rejected, the careful consideration of that case can only
move forward our understanding of the policy issues facing information societies.

REFERENCES


