

A Cybernetic Solution to 21st Century Challenges?

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BUS 5115: Business Law, Ethics, and Social Responsibility

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October 6, 2021

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In her book *Cybernetic Revolutionaries: Technology and Politics in Allende's Chile*, author Eden Medina describes the fascinating collaboration between British cybernetician Stafford Beer and the Chilean socialist government of President Salvador Allende, which Medina describes as "two intersecting utopian visions, one political and one technical" (2011, p.2), with both visions "interested in developing ways to maintain system stability while facilitating structural change and striking a balance between autonomy and cohesion." (2011, p. 12).

I was led to this book by Leigh Phillips and Mical Rozworski's *The People's Republic of Walmart: How the World's Biggest Corporations Are Laying the Foundation for Socialism*, which devotes all of chapter nine, *Allende's Socialist Internet*, to a summary of project Cybersyn (2019, pp. 214-232), the subject of Medina's book, and Medina's book in turn led me to read Stafford Beer's *Designing Freedom* (1974).

I include this background because in attempting to address the questions posed to us for this assignment, to describe our personal beliefs on the importance of laws to protect the prosperity of businesses, and to protect society and the Earth from the consequences of business; and to address what balance we believe laws should seek to maintain the rights of businesses and their customers against the related impacts their operations have on sustainability, we were also asked to reflect on why we hold our beliefs and opinions.

I have long believed that there was something fundamentally and profoundly wrong with the way we currently structure our economic and social system. I wrote in an

earlier paper for this class (Elkner, J., 2021, September 6) about taking an environmental science class as a freshman in high school where we read *Limits to Growth* (Meadows, D. H., 1972). I regularly apologize to younger folks with whom I speak about such matters on behalf of my generation for our willful disregard for the harm we knowingly caused future generations solely in the service of naked self interest. We are guilty of this horrible crime against our children. As a parent of two sons, ages 30 and 28, I experience the anguish of knowing what my generation has done through selfishness and greed.

In studying and reflecting on human history over the last few centuries in the context of our present situation, I have grappled with the contradictions of both capitalism and the socialist experiments of the twentieth century to develop the kind of just and sustainable social and economic system we so urgently need. It has long occurred to me that we somehow have to learn lessons from living organic systems, which have adapted to radically changing conditions for three and half billion years, while we seem to be in the middle of building a dynamic system, capitalism, that will not be able to endure more than a few centuries. Yet while I had a feeling about the importance of learning from natural systems, it is only now, reading Stafford Beer, that I have a word for it, cybernetics, and the joy of knowing that wiser minds than mine have been thinking about this problem.

In the lecture series Beer gave on Canada's CBC radio in the Fall of 1973 of which *Designing Freedom* is composed, he put it this way, "we need better models of the components of the economy, and they must be *dynamic* models. That simply means that we need to see how the parts are inter-related on a virtually continuous basis. Then

instead of the lawyers' and shareholders' balance sheet model, instead of the accountants' and managers' profit-and-loss account model, instead of the input-output matrix beloved by economists, think of a model set down in terms of dynamic variety (1973, p. 40).

Beer's work on cybernetics is all about understanding how dynamic, adaptive systems, such as human businesses, economies, and societies, become surviving systems, able to adapt to changing conditions and endure. Beer defines the relaxation time of a dynamic system as the time it takes the system to reach stability after it has been perturbed, and he puts forth the following hypothesis: "The relaxation time of the institutional system is now on the average longer than the average interval between perturbations, with the result that the institutional system is permanently unstable. Since permanent instability feeds on itself (because there is no recognizable stable condition on which to base learning and adaptation), this instability is likely to become ... catastrophic." (1973, p. 17).

My motivation for studying for a Masters in Business Administration is to be able to teach business classes focused on creating a new type of businesses, which I have been thinking will mostly be structured as worker cooperatives. With the discovery of Beer's work, I now have a new framework to explore for how these smaller businesses could fit together to form a larger economy. It consists of what Beer calls the "liberty machine", a systemwide planning and feedback mechanism designed to provide the entire economy with the information it needs to learn and adapt, while at the same time balancing between the autonomy of the subsystems and the cohesion of the economy as a whole. Forty years of neoliberal ideological hegemony have taught most of us to reject the idea

of economic planning out of hand, but as Phillips and Roxworkski make clear chapter 4 of their book, *Mapping the Amazon*, the mega corporation that made Jeff Bezos the richest man in the world is a country size economy that provides living proof of the possibility for massive, computer aided planning on the scale Beer invasions (2019, pp. 76-99).

I can not say what specific laws we need regulating how businesses are structured and governing the kinds of activities in which they engage, but I can say that they will need to be radically different from the ones we have now, oriented towards creating an economic and social system that is just and sustainable, replacing one that can not see beyond the narrow, destructive motivation of profit.

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