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**Universities Have a Sustainability Problem**

The era of disconnected, infinite knowledge production should draw to a close.

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In [*The Structure of Scientific Revolutions*](https://www.amazon.com/Structure-Scientific-Revolutions-Thomas-Kuhn/dp/0226458083) (1962)—the most cited academic work across the humanities and social sciences in the 1970s—Thomas Kuhn claims that most academic work consists of puzzle solving. Researchers make incremental advances on well-defined problems within a discipline or sub-discipline. It’s rare for a thinker to successfully contest the underlying assumptions of an entire research program. Only the likes of Einstein or Crick and Watson break paradigms and reorient the research of entire fields.

Kuhn’s account, however, assumes the disciplinary prerogatives of the university. He doesn’t raise the possibility of a more fundamental type of disruption where the basic premises of knowledge production are questioned. But of course, knowledge has different functions at different times, as societies develop new priorities in response to new challenges. In this more-than-disciplinary sense we may ask whether the modern research university is structured to help us create a sustainable society.

Sustainability has become a watchword of 21st century thinking. Entire programs (at, for example, [Arizona State](https://schoolofsustainability.asu.edu/)) are now devoted to its study. Investigations range across the humanities, social and natural sciences, engineering, planning, and more. These efforts pursue resilience across the three registers of economic, social, and environmental sustainability. But they also pass over a fourth dimension of concern, what we can call epistemic sustainability.

Born in the late 19th century, the modern research university is built on two linked assumptions. The first is that knowledge is flat: no discipline is more fundamental than or superior to another. The second is that the production of knowledge is an infinite process. The production of knowledge is endless because there is no end to either our curiosity or our desires. These two assumptions are so deeply embedded within academic culture—and within society at large—that they aren’t even subject to debate.

Despite increasing attention paid to interdisciplinary approaches, disciplines still dominate the academy. Disciplines operate both administratively and epistemically as separate domains, and no discipline is subordinate to another. Clark Kerr, president of the University of California system in the 1950s and ’60s, rightly described the modern university as a “multiversity” serving a vast number of constituencies and interests. This service is mostly indirect: universities provide an intellectual buffet from which people (and corporations) can select as they see fit.

Compare this with our earlier knowledge institutions—the European medieval university and the American colonial college. These institutions understood knowledge as hierarchical—knowledge had an end in the sense of a concluding, overall purpose. Individual projects were pursued, and subordinate goals were achieved, but there was general agreement about the overall rationale for the pursuit of knowledge: education served religious ends.

This belief was reflected in the structure of these institutions. In the medieval university, the division of professors into higher and lower faculties expressed the fact that some types of knowledge were superior to others. The three higher faculties of medicine, law, and theology were understood to ascend in order: medicine was concerned with the health of the body, law with the health of the polity, and theology with the health and destiny of our immortal souls.

Similar assumptions ruled the early American college. The senior capstone course in moral philosophy was often taught by the college president. His role was to pull together the threads of a college education toward an overall goal that was at once personal and social in nature—one’s own salvation and the imparting of a sense of *noblesse oblige*, where the fortunate help those less privileged as part of promoting a Christian society.

Of course, a return to a Christian society is now a nonstarter. But this highlights the cultural shift where we came to view the question of what constitutes the good life as a private matter. This point of view is reflected by the dominant political theory of the last 300 years, social contract theory, which reconstructs politics to make minimal demands on its citizens. Society thus took on a fundamentally libertarian cast.

This change also determined the structure of the modern disciplinary university. Like society itself, the modern university is built upon a libertarian logic. The smorgasbord approach to knowledge, where its products are treated as a means to whatever ends an individual wants to pursue, assumes a world in which we need not consider the effects of inventions or discoveries when released into society. The operating assumption, again tacit, is that we can count on all these products being benign in their social effects.

Now consider the implications of the second premise of the research university, that the production of knowledge is an infinite project. While never stated, much less debated, this is the norm within every discipline, except for a few holdouts in the humanities who believe in the idea of a *philosophia perennis* or perennial philosophy.

This commitment to infinite knowledge creation is of comparatively recent vintage. In the past, people were suspicious of *libido sciendi*, the lust to know. This attitude is still visible in the stories we learn as children, of Icarus, Pandora, Faust, and Frankenstein. In contrast, Immanuel Kant summarized the spirit of the modern age when he embraced Horace’s phrase *sapere aude*!—dare to know!

The disciplinary university, then, is the site of a disconnected set of infinite research projects. There is no epistemic hierarchy to knowledge; the only hierarchy is administrative in nature. The insights and discoveries reached are then thrown over the wall that separates the production of knowledge from its use. This is an arrangement that prioritizes individual freedom—for the academics who can pursue whatever research they want, and for the public which can use the knowledge in whatever ways suit them.

Restricting every subject to its own region—including philosophy and the humanities, which had previously sought to offer a view of the whole of life—means that there is no organized discussion of the overall goal of our epistemic efforts. Instead, the research university treats knowledge as a rational means to private and sometimes irrational ends. The lack of an end in the sense of identifying a limit to knowledge production is a consequence of the lack of end in the sense of there being no purpose to knowledge other than the continual increase of our power.

When the research university was founded at the end of the 19th century, this approach was commendable. We had much to learn in terms of basic health and welfare. A radical pushing of all boundaries made sense in order to, as Bacon put it, “relieve man’s estate.” The discoveries that have been made since have lessened many of the burdens that had long tormented humanity. And our technologies were not so powerful as to raise questions of their threatening our wellbeing.

But now, 150 years after its founding, this mission of the research university remains the same. No distinction is drawn between the pressing needs that have been addressed (e.g., sanitation, advances in medicine, and adequate food production) versus the satisfaction of peripheral desires (music in your pocket). Nor do we distinguish between satisfying the needs of those in developed countries, whose basic life requirements have been largely met, versus the situation in those parts of the world that still lack basic services.

Every culture makes epistemic efforts. But only one (now worldwide) culture has created a system where the continuous production of knowledge provides an unending stream of (so-called) improvements in our lives. The rationale for these efforts seems self-evident. For we all want to continue to grow the economy, conquer disease, and address environmental problems.

To state such goals in a piecemeal fashion is to make what seems to be an irrefutable point. Of course we wanted vaccines to end the pandemic, cleaner sources of energy, and more efficient transportation. The list is as endless as are our desires. But this is to commit the fallacy of composition—the assumption that when the members of a collection all share a property the collection as a whole possesses that property as well. Our individual desires may make sense (some do not or are trivial; let that pass). But what happens when they are aggregated? Academics, housed within disciplines, all pursue knowledge of one type or another. But where does this piecemeal process take us when considered as a whole?

Transhumanists ask about the overall direction of science and technology. Their conclusion is that science and technology will eventually deliver us to a condition of infinite human power. Transhumanists differ on the particularities of how this process will be achieved—perhaps through the physical and cognitive augmentation of our simian bodies, perhaps through a silicon future as artificial intelligence comes to either serve, blend with, or absorb us. But by whichever means, the end result is clear: human deification.

Transhumanism is often dismissed as silly or unrealistic. But it can also be seen as revealing the tacit goal of modern culture. The US National Science Foundation places no limit on its program of scientific and technological advance, just as the US National Institutes of Health hope to overcome every infirmity. The same is true for every other nation’s path of research. The only difference between the transhumanists and the rest of us is in the degree of self-awareness. Our epistemic trajectory points toward infinite power; transhumanists simply make the point explicit.

But is the goal of continually augmenting our knowledge compatible with sustainability? Continued technological advance threatens us in three ways: by prompting social instability, as society is unable to successfully adapt to new technologies; through enabling totalitarianism, as advances increase the means for surveilling, manipulating, and controlling populations; and by threatening social or environmental disruption, via either a catastrophic accident or the intentional actions of rogue actors.

The research university is facing a reckoning. While its efforts concerning sustainability are helpful in a piecemeal fashion, its root assumptions threaten the goal of creating a sustainable society. (The same is true for research across the corporate sector.) It ignores the fact that we once again have a common goal: creating a society that is ecologically, culturally, and economically sustainable. Our epistemic efforts need to support rather than undermine these efforts: *laissez faire* knowledge production that ignores questions of sustainability needs to give way to a new imperative where sustainability is recognized as a preeminent value. This does not mean that we no longer can have subsidiary goals or stop the production of new knowledge. But it does imply that our epistemic efforts need to be interrogated in terms of their implications for developing a sustainable society.

Sustainability, after all, is about recognizing limits. Infinity is anathema to the goals of sustainability. The era of disconnected, infinite knowledge production should draw to a close.

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