

# THE DIFFICULTIES OF TECHNOLOGY

## SEMINAR OVERVIEW AND ORIENTATION

This seminar, conducted over 8 weeks in the fall of 2024, comprised a wide selection of readings, a series of lectures delivered by Brian Kemple (Executive Director of the Lyceum Institute), and weekly discussion sessions (lasting from 1-3 hours) addressing the difficulties of technological development, advancement, and integration into human living. These lectures and discussions are preserved in the Lyceum Institute’s archives, thereby remaining an active source of insight.

In this document, we introduce the seminar’s themes, provide distinct white papers summarizing each module of the seminar (identifying key findings, practical implementations, and theoretical contributions identified in both the lectures and the discussion sessions), and conclude with an executive summary.

## INTRODUCTION: WHY “DIFFICULTIES” RATHER THAN “PROBLEMS”?

Public discussions of technology almost invariably proceed under the categorization of *problems* and *solutions*. We identify a specific harm—such as environmental damage, the spread of misinformation, addictive use patterns, governmental or corporate surveillance, automation-induced unemployment—and then search for a technical, regulatory, or managerial fix. This approach is not *entirely* unreasonable; many such problems are not only real but urgent, and demand concrete and swift responses. Yet the central contention made by the **Difficulties of Technology** seminar is that this framing, if taken as sufficient, fails to grasp the deeper source of our predicament and thereby exposes us to worsening harms. Technological advance does not merely generate problems, that is; rather, it introduces and re-introduces new manifestations of perennial *difficulties*—persistent tensions intrinsic to the technological mode of human living itself.

A difficulty, unlike a problem, does not admit of a determinate solution. It can be addressed well or poorly—but it cannot be **eliminated** without eliminating the activity to which it belongs, and those activities are often natural to us. Language, for instance, presents difficulties; political life presents many and obvious difficulties; and education, too, presents difficulties—often ones that go unnoticed. Technology is no different. As such, the aspiration to “solve” technology’s harms through better technologies—be they instruments, policies, or systems—often intensifies the very conditions that produced those harms in the first place.

This seminar therefore begins from a refusal of two common and opposed extreme positions. On the one hand, it rejects the instrumental optimism that treats technology as a neutral set of tools whose only danger lies in misuse. On the other, it resists the temptation to cultural despair or wholesale rejection of modern technological life. Between technophilia and technophobia lies a position both more demanding and yet all the more essential: namely, to understand *what technology is*, how it operates as a formative power in human life, and what would be required to integrate it proportionately into a fully human, truly flourishing existence—thus, not to reject technology outright but also not to constrain the perspective by which it is judged beneficial.

## TECHNOLOGY AS FORMATIVE, NOT MERELY INSTRUMENTAL

A guiding principle throughout the seminar is that technology cannot be adequately understood as a mere collection of external instruments that leave human beings unchanged. From the most basic tools to complex digital systems, technologies function as *extensions* of human faculties: perception, memory, locomotion, communication, calculation, and even judgment. Once extended, these faculties do not remain unchanged behind the extension; rather, the extension feeds back into the user, reshaping many habits, including attention, expectation, and interpretation.

This insight places the seminar in dialogue with several major twentieth-century thinkers of technology, including **Martin Heidegger**, **Jacques Ellul**, and **Marshall McLuhan**, while also drawing upon older philosophical resources—especially **Aristotelian** and **Scholastic** accounts of human faculties and habits. These traditions converge on a crucial point: technology’s most profound effects are not physical but *psychological* and *cultural*. It changes not only what we do, but how we see, remember, desire, and judge.

Accordingly, the seminar treats technology not as an isolated domain but as a pervasive *environment*. Just as the natural environment shapes bodily health and movement, technological environments shape cognitive and affective life. Because environments are typically experienced as backgrounds, rather than objects, their influence often escapes our conscious notice. We suffer change to our own constitutions most profoundly—as the seminar repeatedly emphasizes—when we do not notice that we are suffering.

## FROM INSTRUMENTS TO SYSTEMS TO WAYS OF REVEALING

One of the seminar’s central initiatives is to clarify three progressively deeper ways of conceiving technology, and thereby help us to see the question of technology itself:

### 1. **Technology as Instrument**

The most common view understands technology as a means to human ends. On this view, technology is morally neutral; responsibility lies entirely with the user. While not false in identifying the instrumental nature of technological objects, this account is radically incomplete. It cannot explain why similar technologies tend to produce similar patterns of behavior across cultures, nor why increased technical control so often correlates with diminished human agency.

### 2. **Technology as System**

Thinkers such as Ellul and Lewis Mumford argue that modern technology functions as a self-reinforcing system oriented toward efficiency, standardization, and control. On this view, individual tools cannot be understood apart from the technical networks and institutional frameworks that sustain them. While this perspective captures something essential about modern technological life, it risks portraying human beings as helplessly trapped within an autonomous system escapable only by its total destruction.

### 3. **Technology as a Way of Revealing**

Heidegger’s contribution—and one taken up critically throughout the seminar—is the claim that technology is fundamentally a *mode of disclosure*: a way in which reality is made intelligible to us.

Modern technology, he argues, reveals the world primarily as a “standing reserve” of resources available for extraction, optimization, and deployment. This mode of revealing shapes not only our treatment of nature but our understanding of ourselves.

The seminar does not adopt any of these perspectives wholesale. Instead, it treats them as complementary lenses, each revealing something essential while obscuring other dimensions. The task is not to replace one framework with another, such that each is understood as somehow mutually exclusive, but to order them correctly in accordance with insight into the very essence of technology itself.

## HUMAN FACULTIES, HABITS, AND PROPORTION

A distinctive feature of the seminar is its emphasis on *faculty psychology* and *habituation*. This perspective is outlined with some detail in the theoretical paper, [\*The Soul and the Machine: Thomistic Psychology and Technological Environments\*](#). Thus it is explained that human beings are not merely rational calculators or bundles of preferences, but rather creatures whose powers (or faculties) develop through repeated action. Technologies intervene directly in this process by mediating the formation of habits—often in ways that bypass deliberation, inasmuch as we take to certain technological extensions without conscious reflection on how their use impacts our faculties.

Much contemporary anxiety about technology focuses on content: misinformation, ideological bias, or explicit manipulation. While these concerns are legitimate, the seminar argues that they often miss the deeper issue. The most formative effects of technology occur at the level of *psychological form and action rather than objective content*: how information is delivered, at what pace, with what sensory emphasis, and under what conditions of attention.

Here the notion of *proportion* becomes central. Technologies are not harmful simply because they extend human capacities, but because they tend to extend some faculties at the expense of others. When perception is accelerated, memory may be weakened; when communication is amplified, judgment may be flattened; when convenience is maximized, endurance may atrophy. The problem is not extension as such, but disproportion. If our faculties fail to operate coherently in concert with one another, we unbalance our humanity.

## DOMAINS OF INQUIRY

Across its eight modules, the seminar examines technological difficulties in four interrelated domains, so as to sharpen our understanding of technology’s essential nature:

1. **Psychology** – examining how technologies shape attention, memory, desire, and self-control.
2. **Biology and Environment** – observing how technological mediation alters bodily health, medical practice, and the built environment.
3. **Cultural and Political Institutions** – reflecting on how technology restructures work, education, governance, and social trust.
4. **Communication** – analyzing media’s functions not merely as channels but as formative environments.

Each domain is treated not as an isolated problem set but as an expression of a single underlying issue: the failure to **integrate** technology into human life according to a right understanding of both technology itself and of the human being whom it extends.

## TOWARD TECHNOLOGICAL RESOLUTION

The seminar introduces the concept of **technological resolution** to name its ultimate aim. Resolution here does not mean either Luddite regression or total mastery by technological domination, but rather affecting a proportionate unity between technologies and human faculties—an ordering that preserves the integrity of the human being above all. To resolve technology is not to subordinate human life entirely to technical efficiency, nor to retreat into nostalgic primitivism, but to restore *techné* to *poiesis*: to restore the habit of production to the context of meaningful making.

This effort at restoration will require more than policy or design changes, however. It will need revisions to education, prolonged and consistent practice at the cultivation of judgment, and, above all, the renewal of attention to the moral and intellectual habits by which human beings guide their actions, which habits are themselves reflexively changed by technological use. The seminar therefore not only analyzes our use of technology but prepares us to use it better: that is, it seeks to reframe how technological questions are asked, so that better answers might eventually become possible.

## EXECUTIVE THEORETICAL SUMMARY

The *Difficulties of Technology* seminar advances a unified philosophical diagnosis of modern technological life by refusing to treat technology as either a neutral instrument or an autonomous force beyond human control. Across eight modules, the seminar develops a third position: namely that technology, considered both with respect to its development and its use, is an intrinsic difficulty of human rational activity itself. As such, it cannot be eliminated, mastered once and for all, or rendered harmless through further technical innovation. Rather, technology must be understood through habits of consistent reflection and integrated prudentially into human life according to a sound anthropology and a right ordering of human faculties.

The seminar's most significant contribution lies in its consistent insistence that technological harms are not primarily located at the level of content, misuse, or individual moral failure. Instead, they arise structurally, through the ways technological environments reshape perception, attention, memory, desire, judgment, and social relations prior to conscious choice. This insight recurs across every domain examined—psychological, biological, environmental, cultural, political, and communicative—and supplies the conceptual unity of the seminar as a whole.

Beginning with a fundamental reframing of the question of technology, the seminar distinguishes *difficulties* from *problems*. Problems admit of determinate solutions while difficulties are constitutive tensions belonging to a practice itself. Language, politics, education, and technology all share this character. By misidentifying technological difficulties as solvable problems, modern societies repeatedly attempt to correct technological harms through further technological means, thereby intensifying the underlying disorder even when particular problems might be corrected. This repetitive dynamic explains the self-reinforcing cycle of innovative proposals

concerning means to advance our control, remediation of the harms caused by those means, and subsequent (usually unintended and unforeseen) escalation of new problems that characterizes contemporary technological life. Thus, the intent of the seminar white papers is, by examining the different domains in which technological problems frequently occur—examining them distinct and in parallel structure—help to identify the underlying causes of the **difficulty** that commonly emerges in each case. While each tackles a different theme, that is, the effect is intended to be holistic: we are not here to address delimited domains of technological problems, or even to consider difficulties as constrained to one or another domain, but to identify the nature of technological difficulty as such.

From this starting point, the seminar systematically dismantles the **merely** instrumental view of technology. While technologies do function as means to human ends, this account fails to explain their formative effects on the human person. Drawing on Aristotelian–Thomistic faculty psychology and twentieth-century philosophy of technology, the seminar demonstrates that technologies operate as extensions of human powers—and that every extension **feeds back** into the faculties it extends. Technologies therefore reshape habits before reflective deliberation, often bypassing the functions of rational discursive inquiry and judgment altogether. It is little wonder that appeals to responsible use or individual restraint so frequently prove ineffective.

A central organizing concept throughout the seminar is *proportion*. Human flourishing depends upon the coordinated operation of multiple faculties ordered toward common ends. Technologies become dangerous not simply because they extend human capacities, but because they tend to extend some faculties at the expense of others. Accelerated perception, for instance, weakens the structures by which we develop properly human memory; amplified communication—producing an environment flooded with constant noise—flattens judgment, inhibiting our ability to discern what counts as a true signal (and a signal of *what*); convenience undermines our development of endurance, of the ability to strive for prolonged periods to attain true goods; and the culture of optimization erodes responsibility, allowing us continual avenues for outsourcing the development of ourselves, our communities, and our culture at large. The characteristic harm of technological modernity is thus revealed not as domination (even if this is commonly its aim) but fragmentation—of the psyche, of institutions, and ultimately of the human person; which fragmentation makes greater domination possible.

The middle modules of the seminar elaborate this diagnosis across a few concrete domains where technological problematics appear with evident regularity. In its treatment of biology, medicine, and the built environment, the seminar shows how technologized rationality (i.e., the “technological thinking” discussed in the first module) isolates functions from living wholes, encouraging intervention without intelligibility. In its analysis of culture and institutions, the seminar demonstrates how technological systems displace inherited norms not through ideological imposition but through accommodation to efficiency, scalability, and system compatibility. That is, in considering cultural change, we observe that it typically occurs not because older norms are explicitly refuted, but because they cease to appear as norms at all under the shifting paradigms of technological innovation and acceptance.

The political module extends this analysis by showing how governance itself increasingly adopts the limited logic of technological systems. Administrative efficiency, datafication, and surveillance displace prudential judgment, narrowing the scope of political responsibility and altering the meaning of citizenship. Authority comes to be

experienced not as personal or deliberative—as grounded in real persons weighing the consequences of their actions—but as abstract, procedural, and system-driven; diffusing responsibility from the shoulders of human beings into the ether of rules and policies. Here again, the danger lies not primarily in malicious intent but in the normalization of technical necessity as a substitute for human political reasoning.

The seminar’s sustained engagement with communication (Module 7) and artificial intelligence (throughout all eight modules and discussed with focus in Paper 9) brings these threads together. Media are treated not as neutral channels but as essentially constitutive structures of our environments that shape attention, authority, and the representation of what is considered meaningful; fundamentally changing, that is, the conditions under which objects appear and subsequently how we may exercise our intellects and wills. Artificial intelligence, in particular, is identified as a qualitative intensification of technological revealing: not merely extending calculation, but rendering human language, behavior, and social life legible as data that pressure us into patterns of homogenization and conformity. The seminar’s consensus about AI aims at being neither alarmist nor complacent. Our conclusion is that AI becomes most dangerous when it is treated as noetically authoritative—that is, when it substitutes for the human process of making judgment rather than serving as an aid to it. In both Thomistic and Heideggerian terms, this represents a disordering of intellect and a deepening of enframing.

The concluding module articulates the seminar’s constructive horizon under the name of *technological resolution*. Resolution does not mean eliminating technology, slowing innovation for its own sake, or rejecting modern life. It names instead the restoration of technology to *poiesis*: meaningful making ordered toward truth, beauty, and goodness, such that we may maintain technological advance, innovation, and extension but by considering always its alterations of the human psyche. Such restoration requires the recovery of limits—not as constraints on freedom, but as conditions of flourishing—and the renewal of education as the principal site where habits of human flourishing are formed.

Taken together, the nine white papers present a coherent philosophical account of technology as a power that shapes both the world and the psyche, and therefore must be not only managed but more fundamentally **integrated**. The seminar does not offer technical solutions or policy prescriptions in isolation. It offers something more demanding: a reorientation of thought, of directing our thinking towards *what technology is* and *how it relates to our humanity*—with a deep understanding of that humanity itself standing as a prerequisite. By clarifying what technology is, how it operates upon human faculties and institutions, and why its difficulties cannot be solved on their own terms, the seminar prepares the ground for a more humane technological future—one ordered not by efficiency or control, but by proportion, prudence, and the integrity of the human person. This future finds itself reconsidered in the light of *poiesis* in the subsequent seminar, *The Opportunities of Technology*.