



Technology + Pharmacology: Notes on Current Research

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Editors’ note: This work draws on and includes excerpts from a chapter in the forthcoming book, TechnoPharmacology.

“I had suppressed the reasons I felt compelled to write this book...” Jason Pine confesses in the preface to his spellbinding [The Alchemy of Meth: A Decomposition](#). I will leave the author to tell his own story. But it is a story (or, rather, many stories) that has stayed with me. Partly because it speaks to my own current research compulsions, if not their methods, and partly because of the way it tries to understand the origins of what fascinates us in the first place. For Pine, this means sticky personal histories, diverging narratives about rural Missouri as a place beset by home meth labs, and a forensic attention to the material traces of late industrial life. In addition to interviews, his method in the book largely consists of reading how everyday objects—forgotten documents, batteries, paint thinner, empty salsa jars, washing machines, fuel canisters, cold medicine, etcetera—are decomposed and recomposed “into an *elixir* that radically transformed the ways people lived, worked, and died.” Pine describes the project of interpreting life’s matter as an *alchemy*: a way of thinking allegorically and of attending unheeded but meaningful connections across a lifeworld. It is a world, he observes, where:

Meth is almost always within reach. And when it’s ingested, it can make anything else feel within reach. Meth increases energy and alertness. More importantly, it generates anticipatory pleasure. That is, rather than giving the sense of satiation derived from having consumed something good (consummatory pleasure), meth activates the “seeking system,” creating excitement about good rewards to come. This felt sense of futurity is like hope.

I begin with *The Alchemy of Meth* because, perhaps surprisingly, it's a book that has much to offer understandings of environmental media—including its focus on material culture and the exploded view, meth ecologies and dis/possession, toxic inheritance and excitability—and because it helps to formulate a set of questions at the center of my current research and collaborations. I am struck by its engagement with drugs as a kind of *elemental media* that may at once ruin and recreate our bodies and worlds. In this context, amphetamines, alongside a wider proliferation of stimulants/stimulation, signal a conjunctural expression of the *pharmakon* that simultaneously offers a dose of futurity that feels “like hope” and poses complex social and ecological dangers. This alchemy brings into relief the frictive relationships between our disciplinary boundaries or dispositions, urgent social and political problems, and the affective histories that shape what we think about and how we think it.

Here I want to make two points or, rather, mark an intersection. First, *Alchemy* is part of a growing body of academic and popular thought that captures the centrality of pharmacological substances, practices, and economies to the present—including issues of health, optimization, extraction, inequality, policing, pleasure, democracy, and much else. At the same, these contributions remain peripheral to much research and activism in media- and technology-related fields, which are oriented towards questions of data, surveillance, infrastructure, logistics, and the like. My simple provocation is this: understanding media today requires a deeper engagement with technology *and* pharmacology, big data *and* big pharma, data capitalism *and* “[pharmocracy](#)”.

As an initial response to this provocation, let me briefly mention a collaborative book project on *TechnoPharmacology* that I have co-written with [Aleena Chia](#), [Susanna Paasonen](#) and [Ravi Sundaram](#) (currently under review with Meson Press / University of Minnesota Press). The book touches on a wide range of issues—pornography and addiction, short video aesthetics and political mobilization, lucid dreaming and neuro-hacking, the mainstreaming of smart technologies and cognitive enhancement—and offers a set of speculations about our increasingly techno-pharmacological condition. *TechnoPharmacology* suggests that media studies has much to gain by engaging pharmaceutical and pharmacological substances, habits and industries, and calls for new research examining such phenomena across diverse local and global contexts [1].

I have been inspired by recent provocations regarding elemental media and its potential for engaging technology + pharmacology. To mention just two examples: John Durham Peter's [The Marvelous Clouds: Toward a Philosophy of Elemental Media](#) and Nicole Starosielski's “[The Elements of Media Studies](#)” exemplify this elemental turn to reframe and expand how we understand media's scale and scope. Peters describes this shift in focus as a move from figure to ground. He writes: “The elemental legacy of the media concept is fully relevant in a time when our most pervasive surrounding environment is technological and nature—from honeybees and dogs to corn and viruses, from the ocean floor to the atmosphere—is drenched with human manipulation.” In this way, Peters expands mediation to include the human impacted natural world and those most basic of all elements: sea, earth, fire and sky.

This historically rooted shift in our contemporary understanding of *media* brings atmospheric, environmental, and planetary dimensions and transformations to the center of current debates about technology. It is a line of thinking that is at once generative—including capturing the complex natural-artificiality of drugs, medicine and other supplements at issue here—and, at the same time, consolidates a sense of media as basically outside, environmental, infrastructural, thingy. I call this tendency the *externalization thesis*, an onto-epistemological framing perhaps most commonly associated with Marshall McLuhan’s [“extensions of man.”](#) While this material and imaginary vector is no doubt important (and more nuanced than I can develop here), it also drives a set of assumptions that inhibit alternative ways of knowing media. My argument here is this: it’s time we give more attention to the *intensions of (hu)man*. I have in mind processes of coming into the body, including pharmacological habits like taking a pill or applying electrical current. But also a broader set of concerns related to eating, ingestion, absorption, inhalation, injection, and so on (see chapter four in *TechnoPharmacology*). Margaret Morse, writing nearly three decades ago, put it this way: [“What do humans who want to become electronic eat?”](#)

As Starosielski reminds us, attending the elemental is actually quite useful for dissolving familiar boundaries between inner and outer, discrete and distributed, hard and molecular. Instead, “*elements* compose,” and which processes of composition we choose to emphasize in our searching and thinking matters. “Elements are not things.” Instead, she continues, “Scholarship on media’s elements has repeatedly shown that they are processual, dynamic, and intra-active.” It is this dynamism and intra-activity that matters here—both as a call for new directions for engaging media and animating the media imagination, and as an approach attuned to the techno-pharmacological processes shaping contemporary economic, social and political formations.

To reiterate my claim above: current ideas about [surveillance capitalism](#), [platform capitalism](#), and [the smartness mandate](#), among related descriptions and critique, have much to learn by engaging entangled technologies, industries, and powers animated by pharmaceutical industries and bioeconomies, and what has been termed the [new narco-capitalism](#), [neurocapitalism](#), [psychopolitics](#), and [biocapital](#), among others. If *The Alchemy of Meth* opens onto the decomposition of (a way) life by examining the residues of an illegal but ubiquitous drug culture, then my own interests focus on the increasingly ordinary ways that stimulants like caffeine and nicotine, Ritalin and Adderall, Modafinil and nootropics, not to mention illegal narcotics, are enmeshed or *enfleshed* with smart technologies and computational networks (from smartphones and Tik Tok to express delivery and machine learning). Understood to optimize, (and create new demands for), focus, energy, productivity, and creativity, among other vitalities, these techno-pharmacologies are at once tied to a global rise in amphetamine-type stimulants (ATS) *and* technologized stimulations. Critically, they signal a continued de- and re-composing of the present and the planet that require new focus methods, questions and collaborations. Finally, this is also to ask: what forms of research and critique are needed to challenge the world picture articulated by smartness, platforms, and biotechnologies, especially the conceptual frameworks and political might that

position their demands as norms? And how can we better attend the complex geopolitical [intimacies](#) and [life support](#) systems that animate unequal optimization and extraction regimes across cities and continents—including actually existing communities, places, and institutions?

Endnotes

[1] We hope the book will be out in early 2022 as part of the In Search of Media series at Meson Press and University of Minnesota Press. More info on that open access series here: <https://meson.press/series-page/in-search-of-media/>. I should also note that I am excited by the shared fascination (and possible future collaborations?!) with [Mél Hogan's](#) work on DNA as a form of data storage, among other EML projects.

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