TECHNOMANCY – lecture performance essay

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Through this writing I'm asking how ancient technologies for divination have led to contemporary divination *by* technology. Especially, I orbit around astrology and AI as seemingly non-related technologies for divination, but which bear resemblance as tools for producing meaning about the world through processes of pattern recognition. Can the development of predictive algorithms and AI be situated within an astrological lineage?

I write this on the edge of a dense body of theories. They are carried by words, which are held by books, some of which are lying beside me writing this. Others are contained in the overfull hard drive of my computer. Some seem urgent and intriguing to me, others plain boring, and this mixture quite excites me. This will be maybe cohesive but probably not; it will paint some big strokes and dive headfirst into big things and zoom into random details. Bear with me. I will try to explain what pulls my attention, what sets off my imagination, the parts I wish I could ignore but that keep on haunting me.

TECHNOLOGIES FOR DIVINATION

"Technology is the active human interface with the material world."[1]

Following Le Guin, technology is how we do things, and is not synonymous to specialized technology, even if that is a default connection easy to make today. Instead, I understand technology as what we can learn to do, and how. In this way, technology is always related to a practice. Throughout history, people have developed technologies for divination, tools for reading and interpreting the world and the future

[1] Le Guin, Ursula K. 'A Rant About "Technology"' https://www.ursulakleguin.com/a-rant-about-technology

through the interpretation of signs. History is shaped by technologies and by the imaginations that devised them.

ONEIROMANCY

Hundreds of millions of years ago, nervous systems had just become capable of remembering what happened to the organism as a whole. You might be wondering why we begin here, with the electrical signals passing information around a pre-historic organism. I want to ask questions about the future, and to do so, I have to begin by remembering a past. Because our capacity to imagine a future is a product of our capacity to remember. Our daily ritual of expectation—that kind of anticipation of the past—is how we predict what tomorrow might be like.

And this process would begin with dreaming. The dream became a space where the nervous system processed memories of lived experiences, but also recomposed them to simulate situations that had not been experienced. And this would have been how the nervous system learned to imagine.

Initially, the dream state was subconscious, but eventually, dream states extended in time, and dream narratives recollected to be interpreted while awake.

Imagination is a waking dream mixed with the storm of perceptions, a virtual reality that coincides with the material one. Our capacity to dream once created a self-aware consciousness, an awareness gradually expanded into the past and future, producing a sense of self, with the ability to continuously reflect upon its own experience and so create a narrative of its own life, a story open to editing by desire.

It's memory that makes imagination possible, linking a however partial, erroneous, manipulated history to an imagined future. This dream oracle might be blind to the future, but insightful to the past, therefore able to simulate possible or probable futures. This would come to include the capacity to imagine what others might think and feel in various scenarios, based on a having constructed mental representations of the world and of others. Eventually, these representations of *things* moved towards the representation of the *names* of things. Through the capacity to describe an experience, to oneself and to others, narratives could be shared, externalized as stories, myths, objects, tools or signs.

TECHNOLOGICAL MEMORY

Bernhard Stiegler differentiates between three forms of memory: the genome, the genetic memory of the species, encoded as DNA. The somatic memory, preserved in the nervous system, the memory of experience. And this third memory, made from technics, an artificial memory that supports "the transmission of questions" intergenerationally. Technics—meaning objects, signs and language—are prosthetics that *give* qualities or potentialities.[2] For example, the saw is a technology for cutting wood, and the knowledge of woodcutting is preserved in the saw. By using the saw, knowledge is inherited and incorporated into your somatic memory. These tools are adopted to transform our environment. They carry and transmit the gestures preserved in them.

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[2] Stiegler, Bernhard. Chapter 2 'Technics as memory' & Chapter 3 'Consciousness in the age of industrial Temporal objects'. In: Philosophising by Accident. Interviews with Élie During. Ed. & Trans. Benoît Dillet, Edinburgh: Edinburgh University Press, 2017; p. 49

And the same goes for drawing or writing, the process of externalizing experience into signs, to be internalized by reading and interpreting them. In this way, history is inherited through technics. The externalization process allowed memory to be transmitted intergenerationally by non-biological means, creating intergenerational memory from individual experience—meaning culture. It was through narratives about the past and the future that culture was accumulated and spread. Not only is history inherited like this—technologies are also accompanied by the imaginations they inspire.

“Technology is not neutral. We're inside of what we make, and it's inside of us. We're living in a world of connections—and it matters which ones get made and unmade.”[3]

The development of technologies began with an imagined future, combined with the imagination of an object, and the capacity to produce it, like chipped stone weapons, or ways to cast horoscopes or read the future from the stars. And so too began the technological development, as the continuous accumulation of skills required to produce continuously refined objects, where each iteration refines not only the object itself, or the skills involved in its production, but also the imagined representation of what the technology could become, as well as imagining other technologies might come in handy. It’s easy to default into the idea of technological progress, but technologies frame our imagination, in *all* directions.

“It's easier to imagine the end of the world than the end of capitalism.”[4]

After all, it’s impossible to predict a future very far beyond one’s own historical context.

Talking about divination together with predictive algorithms and AI might seem paradoxical. It’s easy to conceive of these kinds of technologies as the epitome of scientific thought,

[3] Haraway, Donna. 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century.' In: *Simians, Cyborgs and Women: The Reinvention of Nature.* New York: Routledge, 1991 pp.149-181.
[4] Fisher, Mark. *Capitalist Realism: Is there no alternative?* Winchester: Zero Books, 2009. pp.2.

devoid of magic, magical thinking and belief. A contemporary myth of Western modernity is that it disenchanted the world by opposing science and magic, and that it was the absence of magic that made a society modern. It followed that scientific methods, enlightened reason and data-driven prediction replaced tools like divination and augury for prediction. But the distinction between magic as a fundamentally subjective practice and science as objective continued to be contested, as "magic is based on the fundamental belief that humanity can intervene in the natural world to modify or add to its systems of determinism."[5] Disenchantment was thus more of a political project of order and control, an alliance between science and public order. Abandoning the myth of disenchantment also means abandoning the codified distinction it justified between religion, magic and science, and to consider that we might have a magical relationship to technology.

THE TICKER

The ticker, invented in 1867, was a machine transmitting stock price information, a technology devised for financial fortunetelling which quickly became synonymous with a mode of speculating itself. Why do I bring up the ticker? This might seem like a random zooming in, but this technology exemplifies an important shift. If earlier technologies prophesized on pre-given futures, the ticker introduces a technology tied to the paradigm of knowledge and information, where speculation becomes as a new form of future-creation. It doesn't only read or interpret the future—it produces and intervenes with it in real-time in order to make the unlikely more likely, or to prevent the likely from happening.

Not simply a financial activity, speculation became a theory of human behavior, of how we consider evidence and project futures. In order to separate speculation from its gambling or magical siblings, "proper" speculation had to be defined, leading to battles of the politics of information itself, and especially machine-generated information, and what it meant to master speculation for future forecasting. The ticker marks a shift towards the paradigm of disenchantment, gradually shifting speculation vis-à-vis scientific discourse, until 'prediction' became a legitimate object of legal study.

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[5] Schradle, Nathan. 'In Algorithms We Trust: Magical Thinking, Superintelligent Ai and Quantum Computing' In: Zygon, Science Fiction's Imagined Technologies. vol. 55, no. 3, https://doi.org/10.1111/zygo.v55.3 2020

The ticker produced a new logic for a new economy, turning commodities into speculative objects. Speculation traded ideas in a world of imagination freed from hard reality, in a market that turned the future into something that could not only be priced but also—conceptually—bought. Prediction, whether accurate or not, offered the illusion of control over one's own future. Statistics and probability had become the dominant mode of engagement with an uncertain future.

Through demystification, disembodiment and instrumentalization, speculation became a science of prediction. This shift paved the way for capitalism's ongoing destructive redefinition of the world with the destruction of practices and technologies, of what enables humans to think, imagine and resist.

The ticker started a process of making the future into data, abstracted as pure information, objective knowledge to be interpreted by a skilled speculator. With the ticker, speculation was no longer an imminently human endeavor, now also initiated by machine technologies, even machines as simple as the ticker.

How do we interpret the world and how can we imagine the future? To ask questions about the future to an oracle requires that we can imagine it. And the ways we make prophecy shapes not only the futures we imagine, but the ones we act upon, and so, our methods for divination matters for the future to come. And if we do not like the future we are producing, how do we invent new practices and forms of divination? At stake is the construction of the future—by whom, and by what instruments, and who is it for?

ALGORITHMIC PERFORMATIVITY

I spend quite a lot of time in the dictionary application on my computer. I keep it open when reading texts, as well as when writing, a help when translating myself from my mother tongue to English. Browsing and roaming through words and their infinite connections to others. How to interpret the signs? Is the world something that can be read, a textual reality? Does meaning appear randomly in an accidental universe? Magical thinking may be understood as an interface between the known and unknown as a means to make sense of an otherwise inexplicable reality. But disenchantment makes an incident into an accident, and all further meaning is considered superstition.

“The schoolboy reads his ABC book, and the astrologer reads the future in the stars. In the first clause, reading is not separated out into its two components. Quite the opposite in the second though, which clarifies the process at both its levels: the astrologer reads the constellation from the stars in the sky, simultaneously, he reads the future or fate from it.”[6]

Through Benjamin I see how a textual and magical world may coincide, at least as a multiple and simultaneous kind of perception. A perception of similarities, a form of pattern recognition archived in language: meaning flashes up when we read a conjunction of signs. The correspondence of a sign to a thing is a semiotic and magical coincidence, a form of reading that intertwines logical and magical thinking.

Inside my dictionary application, it excited me to ponder the signification of the word ‘artificial’ from Old French meaning “not natural or spontaneous,” inherited from Latin *artificialis* “of or belonging to art,” from *artificium* “a work of art”, from *Artifex* meaning “craftsman, artist, master of an art.” Meaning that *artificial* first meant *the artist*, then *the work of art*, then *the thing belonging to a work of art*, to now just mean *something not natural*.

Artificially intelligent machines are modelled after a human brain, a neural network mimicking a nervous system, analyzing and synthesizing memory—stored data—in a process meant to resemble that of thinking and imagining. The fascination with human brains and neurons in a computational context came out of the cybernetic desire to understand all systems, including those of the brain, as machines, in order to reimagine machine systems through the image of the brain. Once nature has been made into information, pure objective data, it would become subject to the same rules of feedback, regulation and communication that govern the virtual world of computers. With the emergence of cybernetics, the *problem of uncertainty* was translated into a *problem of informatio*n. Meaning, the future can not only be known, but also controlled, if we have enough information. By assimilating the entirety of the world into a model of the mind, understanding the mysteries of the cosmos become intertwined with understanding the mystery of the mind.

Algorithms dictate what we can see and perceive and, therefore, what we can know. Shifting the problem of uncertainty from the spiritual realm to the field of science, predictive algorithms assume the role of oracles in today’s techno-capitalist world. Just like astrology, artificial intelligence is situated in the

[6] Benjamin, Walter W. and Knut Tarnowski. 'Doctrine of the Similar (1933)' In: *New German Critique (1979)*

nexus of belief, perception and the unknowable. Operating as a belief system about the nature of reality, artificial intelligence is enchanted by our believing in it, required for it to "work."

These technologies are designed to continuously learn, to optimize their performance through how we interact with them. These predictions anticipate our behaviors, decisions, and opinions. Meaning, they perform some kind of prediction that also manipulates us. How do they anticipate our behaviors? How do they direct us towards a future they have already pre-scripted? How do they shape our imagination? *How does a predictive algorithm perform?*

Reiterating the principles of the Turing Test, the questions is not whether AI is *actually* intelligent, but more if it can *imitate* intelligence so that we *perceive* it as intelligent, implying belief. In a theatrical sense, is the performance of AI conditioned by the suspension of disbelief? On the one hand, what is at stake if suspending our critical thinking is required for AI to work, for AI to perform its magic?

On the other hand, how does this performance implicate us? For the machine to perform itself as intelligent, someone first has to believe in its intelligence. Is this how technology is embodied? Maybe 'intelligence' is a collectively produced effect, where the way 'intelligence' is expressed is a result of reciprocal human-machine attunement? Through belief, we authorize the AI to become intelligent. But maybe the AI equally authorizes us to believe it can be intelligent, together redistributing influence so that the more we believe in the AI's intelligence, the better it becomes at performing it?

ARTIFICIAL FUTURES

There are many examples to be given on how magical thinking is rather at the core of technological development, reaching for the idiom of religion by finally making good on the promises of immortality, salvation, resurrection, transcendence or eternal life. In different ways, the developers behind these technologies imagine how artificial intelligence will fundamentally reshape human experience biologically and intellectually, forsaking the body for a state of "pure mind." But instead of the soul or spirit, it's the mind that can become immortal.

In all these prophecies, superintelligence is achieved through some single networked consciousness composed of all organic and carbon-based intelligence, that will spread beyond the solar system and turn non-life into mind and the universe into cyberspace and make life "truly meaningful." "The Mind Fire" "the Singularity" or "the Artilects" are some example of the juxtaposition of religion and technology developed by key figures in the field of artificial intelligence. Following these dogmas as they become fully fledged apocalyptic prophecies for the "final phase of evolution," namely its transcendental end.

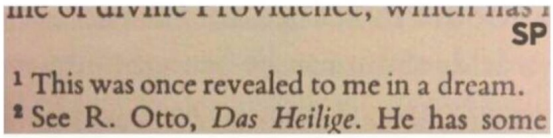
Following the myth of disenchantment, these examples show that if religion and magic went anywhere, it went to be internalized, seeing ourselves as god-like and magical, as we attempt to mimic our own intelligence in artificial agencies we can come to worship. I want to refer back here to the prosthetic memory, that these objects are externalized memory. As if, with AI especially, or computers in general, we externalized not only knowledge as memory, but our capacity to make memories, to think, to construct knowledge. Then we defleshed it, made it into abstract data, privatized and capitalized it, and devised an object we then fetishize so much we made it divine, into the perfect secular god in late-capitalist technocracy, in a world we've made devoid of meaning.

If traditional forms of divination were a thing to be done together, speculation made the future an individual matter. Predictive technologies are currently prefiguring a future that excludes us.

I'm doing this research to saturate my own gaze with another set of knowledge, to learn not the inner workings of these technologies, but at least what they put at stake. I turn to the material infrastructure behind these mystified, omnipresent and obscure technologies to see how the future they're producing could be hacked, if there are ways to coopt or appropriate them for other kinds of divination. I need to understand what kind of questions matter, and to affirm that to be interested by something gives that something a power it doesn't generally possess: the power to make us think, feel and wonder, the power to make us consider how to relate to it, how to pose relevant questions about it.

Ultimately, how we engage with our technologies shape the knowledge we generate together. I question our relationships to technology, but also how these apparatuses and patterns are already encoded into our bodies and imaginations. Thinking and knowing includes a body and are inconceivable without the multitude of relations that also make possible *the worlds* we think *in*. To craft these situations differently is a means to render another kind of knowing and thinking possible. I'm convinced that we need other kinds of narratives, and narratives that populate our worlds and imaginations in different ways. The future is being imagined and produced by statistical and predictive technologies, technologies that shape our imagination and the technologies we imagine. How do we keep practicing imagination? How do we update our cosmologies to hold a reality we continue to materially alter? How do we read and interpret signs in a universe saturated with our own inscriptions?

When your essay is due for tomorrow and you run out of references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[1] This was once revealed to me in a dream.
[2] See R. Otto, *Das Heilige*. He has some

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