



Imagination and Literary Media Theory

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Media Theory
Vol. 1 | No. 1 | 17-33
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<http://mediatheoryjournal.org/>

Triads

Media theory loves its threes¹. Marshall McLuhan wrote his dissertation on the medieval trivium of grammar, rhetoric, and logic (2003 [1941]); Friedrich Kittler emphasized three media functions of processing, storage, and transmission in a book about three devices, *Gramophone, Film, Typewriter* (1999), which he mapped onto Lacan's three registers of real, imaginary and symbolic; Lewis Mumford (1963 [1934]) split the history of technics into three ages: eotechnic, paleotechnic, and neotechnic; John Durham Peters (2009) wrote about a "media studies triangle" of text-audience-industry (outside of which we find the "civilizational" media theory of Innis, McLuhan, et al.) In this very issue, W.J.T. Mitchell (2017) suggests a "rule of three" about what he sees as "the only three great orders of media": images, sounds, and words. I could go on...

It's not hard to see the attraction to threes: in mathematics, Pythagoras showed the formal elegance and structural integrity of three – no surprise Pythagoreans thought the triad to be the noblest digit; in social theory, Freud split us into Id, Ego and Superego, while the backbone of Marxian theory is a three (when we remember that the base beneath the superstructure is made up of forces *and* relations of production); Mitchell (2015) reminds us of a great many other triads in the history of thought via Piece, Barthes, Aristotle, and Hume, among others; there are three jewels at the heart of Buddhism (Buddha is affiliated with yellow, Dharma with blue, Sangha with red), which correspond to the three primary colours our eyes can see; in

Hinduism, there is the Trimurti of Brahma, Vishnu, and Shiva, and then of course there is Christianity's Trinity of Father-Son-Holy Spirit. Maybe all of this has something to do with the way we experience and understand time as past, present, and future. I'm not sure, but someone should write a media history of the triad (or maybe it would be a triad history of media theory): more complex than two but not so unruly as four.

This journal would be a good venue for such a project, but I am after something different. I want to focus, instead, on the concept that would be at the heart of such an inquiry: imagination. Triads are imaginative experiments with drawing seemingly-incongruent items together. They forge surprising connections and offer frameworks for understanding. They are paradigmatic of media theory's long and rich history of conceptual modelling, speculative thinking, and experimental writing. Triads thus invite a consideration of the importance of imagination to media-theoretical research past and future.

Imagination

Imagination is a lovely concept to think with, but it's all too rarely that we accept its offerings. It is a rich and complicated concept. Like *media*, *culture* and *communication*, we can trace through its history of usage many of the great intellectual and philosophical debates of the western tradition. It shows up constantly in thinking about thought. John Ruskin claimed imagination to be "the grandest mechanical power that the Human intelligence possesses, and one that will appear more and more marvellous the longer we consider it" (Ruskin, 1846: 161). Shakespeare thought about imagination a lot, such as in *A Midsummer Night's Dream*:

And as Imagination bodies forth
The forms of things Unknown, the Poets pen
Turns them to shapes and gives to airy nothing,
A local habitation, And a name.

And we find it at work in Genesis Chapter 6, verse 5: “And GOD saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually.”

So sometimes imagination is dangerous and sometimes it is beautiful. And sometimes it’s a vein to be tapped: great poets, painters, and architects are said to ‘capture the imagination.’ Still other uses suggest imagination not as a substance to be captured but as something that envelops, like ether or air: the *modern imagination*, the *Western imagination* or *Canadian imagination*. We know how fraught and contested such categories are. Raymond Williams famously said that culture was one of the two or three most confusing and contested words in the English language (Williams, 1983: 87); surely *imagination* is not far behind.

Imagination is, like all the best words, difficult to contain. No sense in even trying. Rather than define imagination, or capture yours, I am hoping to glean from some of the ways it travels through media theory. Gleaning has the advantage of opening up new possibilities for old words. It’s a worthwhile endeavour, I think, because it’s rare that we incorporate *imagination* into our scholarship and teaching. It seems to lack the empirical or analytical rigour that we demand of ourselves and our approaches. Our default setting is to be cold and diagnostic, safe in our critical and historical distance. But what might *imagination* bring us that other analytic concepts or approaches don’t?

Media theory offers a rich archive for considering this question. In fact, I think one of the defining characteristics of media theory is that it has been as much about imagination, over the years, as anything else. It’s right there on the second page of McLuhan’s preface to *The Gutenberg Galaxy*², but, more importantly, it’s an engine that has kept media-theoretical debates humming along for at least sixty years and probably longer. So, my topic is not a specific text or object, but media theory itself, which is an intellectual formation that takes ‘imagination’ as both *object* and *method*.

But I have another fish to fry. I’ve been wondering for a while where the literary stream of media theory has disappeared to. Here, my inspiration comes in part from Erhard Schüttpelz (2016), who recently suggested that media theory emerged in the 1950s as a “bastard child” of communication studies (in both its engineering and

social scientific senses), anthropology, and literary studies. The communication and anthropological influences get a lot of attention, but the literary ones have lately been fading away. This is curious, given so much of media theory's incubation was in literature departments, and that its unique prism of analysis was cut from the literary cloth.

What I have in mind is not what's happening in Digital Humanities (DH) programs. What I call *literary* are approaches to thinking about media, communication, and technology that employ methods of close (not distant) reading and that opt for depth of analysis rather than breadth. This is not a polemic against DH, which has taught us a lot about literature and culture. Nor is what I have in mind about posthuman subjectivities – in fact it's not about the subject at all. In the traditions I have in mind, ways of thinking, speaking, and doing are positioned as relays in larger media-technical infrastructures that do not privilege human bodies (though they may pass through them). Discourse and texts are understood not as founts of human meaning but as indexes or traces of technical systems that structure ways of knowing³. This literary stream is an essential element in the soil from which media theory grew, and as the gazes of our colleagues from elsewhere in the humanities turn toward our objects and methods, we should develop a proper morphology of that soil.

Imagination as Object

First: imagination as object, an idea captured in two pithy, and by now legendary, quips: James Carey's characterization of the telegraph as "a thing to think **with**, an agency for the alteration of ideas" (Carey, 2009: 157, emphasis added); and Friedrich Nietzsche's dictum that "our writing tools are also working **on** our thoughts" (quoted in Kittler, 1999: xxix, 203, and 204, emphasis added). I bold *with* and *on* because the gulf between these words is everything between two traditions of thinking about media, one pragmatist and generative, the other existentialist and diagnostic. A central question of media theory – the relation between technology and thought – shows up here in two senses: with Carey, it's posed as: (1) How do media (re)shape imaginative frameworks by which people conceive of themselves and their relationships (with other people, tools, institutions, and the natural world)? Put

another way: Media here provide *metaphors*. With Nietzsche, the question is: (2) What role do media play in structuring the conditions by which thought is possible at all? They here shape *language*, which is for Nietzsche the context in which thought itself arises. These quotes are two poles of an intellectual continuum. Between them is media theory.

1) Media History

Carey's essay is of course a masterclass in demonstrating the intellectual and social effects of technology. He shows the telegraph to have wide-ranging implications for language (emphasizing concision and economy; revealing language as a code; inspiring new literary experiments from, for example, Hemingway, who was "fascinated by the lingo of the cable"), for finance (after the telegraph, markets become geared toward abstract futures), for space (communication at a distance overcomes bodily limitations to an unprecedented degree), and for time (standardized time zones impose order on a chaotic rail system). Carey uses the word sparingly, but what he's talking about is imagination: the way people think of themselves, their jobs, each other, and their environments, which are all reconfigured by the telegraph. An emerging imaginary (technical? telegraphic? logistical?) connects each of the phenomena Carey describes: economical prose, futures markets, rapid signal traffic, and standardized time zones alike. The telegraph is not here the driver of historical change, but it provides new metaphors and models for thought, it provokes new fears and desires, and each of these make a difference.

I point to Carey's essay not just because it is so well-known, but because it is paradigmatic of this historical vein of media scholarship. There are, of course, many other examples – from Harold Innis and Michelle Martin to more recent work by Jonathan Sterne and Lisa Gitelman. These approaches carefully sift through archives to understand complex webs of social, political, and institutional activities within which techno-cultural imaginaries, and the devices they produce, take shape. These are literary thinkers but their texts are documents and grey literature; they mine archives to understand imagination.

So that's one track – I call it *Media History* for simplicity's sake but I am not enamoured of this term. (I wanted to call it *social media history*, but that now describes

something quite different). Another track, running parallel, takes imagination as its object, though it comes at it from another angle.

2) **Discourse Networks**

I'll call this second track, again for lack of a better term, the *discourse networks* approach of McLuhan, Friedrich Kittler, and more recent thinkers like Cornelia Vismann. "Discourse networks" is the translation of Kittler's (1990) term *aufschriebesysteme*, which translates literally as inscription system. I'll take a bit more time to explain this stream because it does not always benefit from Carey's lucid prose.

This stream is no less historical but is much less about *History*, if I can put it that way. It uses methods from disciplines other than History to think about the past. Its primary texts are literary rather than archival. It inverts Media History's method by mining imagination to understand archives and technological change.

This is what McLuhan meant when he claimed art to be an "early alarm system" of technological change (2003 [1964]: 16). Figures like Shakespeare, Thomas Nashe, and T.S. Eliot, he argued, teach us as much about the shift from manuscript culture to the Gutenberg galaxy and beyond as Gutenberg himself (or his apparatus). In crashing these thinkers and time periods together, McLuhan hot-wired linear historical narratives about culture and technology. The resulting 'mosaic' approach shows how linear type and standardization break up imagination, which he understood in medieval terms as "that ratio among the perceptions and faculties which exists when they are not embedded or outered in material technologies. When so outered, each sense and faculty becomes a closed system. Prior to such outering, there is an entire interplay among experiences" (McLuhan, 1962: 300). The story of modernity for McLuhan is the splintering of imagination and outering of the senses into apparatuses. These produce new, competing environments of perception. In the Gutenberg galaxy, structures of knowledge and institutions take root that privilege the reading eye over the listening ear, and which mirror the linear logic of type found on the printed page.

McLuhan thought that literary texts were most interesting not for their meaning or content, but because they are unique traces of historical shifts in sensory and imaginative life. This mode of reading was picked up by Kittler, who was an even more extraordinary reader. McLuhan went straight from the Gutenberg galaxy to electric media, skipping over the emergence of technical media like the gramophone, daguerreotype, film camera, and typewriter. Kittler filled these considerable gaps while also performing a decisive inversion of McLuhan: it is not that media are extensions of Man, said Kittler, but that Man is an extension of media. Media technologies and networks are more than outered human senses, or expressions of human will. They delineate and structure the imaginative space within which we think, act, and do. We come to know our bodies and minds only through the media technologies that structure them. Concepts and imagination are media effects, for Kittler, not the other way around.

Kittler agreed with McLuhan that the zone most privileged for detecting and exploring these historical paradoxes is literature. To demonstrate his thesis and infuriate his colleagues, Kittler ransacked German literature for bizarre, forgotten texts by unknown authors and obscure oddments by famous scribes. These he parachuted – often in their entirety – into his texts without traditional explanation or commentary. Kittler cared nothing for authorial intent, social context, narrative and thematic meaning, or any other traditional objects of literary analysis. “In lieu of philosophical inquiries into essence,” he wrote, “simple knowledge will do” (Kittler, 1999: xl). This dictum is usually understood as a defence of number against the humanities’ unfounded suspicion of quantification (how quickly we forgot, he always said, the centrality of mathematics to the history of painting, sculpture, and music). But it also captures his approach to literary analysis.

In the Kittlerian mode, there is no unmasking of the world of illusions, no decoding of hidden ideological messages, no performance of the virtuoso critic. The mode is to read words on the page, as they are; not to go digging for meaning, but to recognize how texts *operationalize* the media logics in which they are produced. He is at his most lucid (at least in English), when he writes in the Preface to *Gramophone, Film, Typewriter*, “[This book] collects, comments upon, and relays passages and texts

that show how the novelty of technological media inscribed itself into the old paper of books [...] What writers astonished by gramophones, films, and typewriters – the first technological media – committed to paper between 1880 and 1920 amounts, therefore, to a ghostly image of our present as future” (Kittler 1999: xl).

In the Gramophone chapter, Kittler makes a jarring jump cut from his own prose to a 1916 story by Mynona (pen name of Salomo Friedlaender) called “Goethe Speaks into the Phonograph” (Kittler, 1999: 59-66). Friedlaender’s protagonist is Professor Abnossah Pschorr, inventor of the “telestylus” and technical engineer of the highest order. We also meet Anna Pomke, Pschorr’s assistant and object of affection, who is too enamoured of Goethe’s poetry to notice the Professor’s technological achievements. To win her affections, Pschorr devises an apparatus that he believes can capture and conquer the fount of Goethe’s poetry and power: his voice. This involves raiding Goethe’s tomb and taking a wax model of the poet’s larynx. Pschorr uses it to build a dummy larynx that, he says, will reproduce “the timbre of the Goethean organ as deceptively close to nature as possible” (1999: 63).

But this is not just mimicry. Pschorr aims to take Anna to Weimar and place the apparatus in Goethe’s study, where, he assures her, vibrations from the poet’s voice still faintly echo. “I want to suck those vibrations through the larynx,” he tells a baffled archivist when they arrive (1999: 63). Pschorr receives permission, and his apparatus works. It faithfully captures, amplifies, and records (via phonographic needle) physical vibrations made by Goethe’s voice. This pulls Anna only further under the poet’s sway. The Professor broods on the train journey home. Realizing his mistake – that Anna has been transfixed by Goethe’s voice rather than the sublimity of his device – he tosses the technical means of connecting Anna and Goethe out the window. With the channel now gone, Anna’s affections for the Professor immediately flower. (As Winthrop-Young points out, Kittler rarely passes up opportunities to irk his critics by reducing human relationships to crude couplings – bodies of desire are analogous to plugs and sockets in his sexual circuitry of human affairs. See Winthrop-Young, 2011).

In Kittler's reading, Friedlaender's story is a media effect in both what it represents, and how. "Friedlaender correctly delineated the new constellation of eroticism, literature, and phonography" and his story "conjures up the technological past in the shape of Germany's *Mr*-author in order to predict the transformation of literature into sound" (Kittler, 1999: 59). In other words: Pschorr's victory over Goethe stands in for technical media's victory over the "epoch of writing." Sound recording technology – like the gramophone and Pschorr's apparatus – break up writing's monopoly over imagination and expression. For millennia, writing was the only means humans had to reliably store and transmit cultural knowledge (which Kittler sees, correctly, as data). To store a sound was impossible. All you could do was describe it in writing, i.e. pass it through the bottleneck of the symbolic. But with the gramophone comes the ability to record sonic vibrations from physical reality and play them back at some point in the future. Writing's monopoly over sensory experience is no more. The poet is reduced to mere mortal. The technically savvy professor takes his place at the switchboard of power over imagination, which has become data processing. "[...] [F]rom the arts to the particulars of information technology and physiology – that is the historical shift of 1900 which Pschorr must comprehend" (Kittler, 1999: 72). Paradoxically, literature is the medium through which we understand the end of its monopoly over imagination.

This mode of reading saw Kittler skip over all kinds of nuance regarding power and politics along the lines we are used to working with. He has been rightly taken to task for this (see Peters in Kittler, 2010: 1-17 and Winthrop-Young, 2011: 120-145 for an overview of critiques). But his discoveries about literature still demand our attention. Primary among these is that the objects found by traditional textual analysis (narrative, theme, character, ideology, mytheme, etc.) are not the only ones there for consideration. Through his mode of media-technical analysis, we learn about epochal shifts in the nature of culture and civilization, which are everywhere and always technical, grounded in changes to the processing, storage, and transmission of data. Literary texts document these changes in motion; they do not simply *represent* these shifts but they *are themselves* evidence of them. As Kittler writes, "...we are left only with reminiscences, that is to say, with stories. How that which is written in no book came to pass may still be for books to record. Pushed to their margins even obsolete media become sensitive enough to register the signs and clues of a situation" (Kittler,

1999: xl). Texts and the imaginations that produce them bear the imprint of their media epoch. It's the job of the critic and theorist to read them in such a way.

Kittler is often framed as a technofetishist, but there are few as committed to erudition and close reading as he was. And this reading mode, in spite or because of its howlers, has inspired some of the most original thinking about media of the last 30 years.

3) Imaginary Media

Some such thinking falls under the rubric of *imaginary media*, which is my third example of media theory that takes imagination as an object. Like media archaeologists, theorists of imaginary media are interested in forgotten histories and archival oddments. They locate gardens of forking paths where the historical trajectory of technology might have been otherwise – ideas that mediate impossible desires and so die on the vine (or were never meant to live at all): The Soviet internet that wasn't (Peters, 2016); an algorithm that produces new songs based on the totality of Canadian folk music (Svec, 2016); da Vinci's helicopter device; the doomsday clock (suddenly back in the world with a vengeance). These imaginary media invite us to ask "what if?" They invite reflection on what we ask of technology, what we project onto it, and how those expectations change. They bring into focus dominant assumptions – not just about media and communication, but about how we conceive of history, present, and future. In so doing, imaginary media seek to reframe our relationships to each other, technical devices, the natural world, and the divine or ineffable. Peter Blegvad (2008) brilliantly noted that hands folded in prayer are one of the most simple but significant imaginary media as they establish a channel for the transmission of "devout aspiration" (discussed in Kluitenberg, 2011: 58).

Imaginary media are often about folds – how desires and fears from earlier historical moments reappear in unexpected ways to complicate linear media histories. Even actually-existing media accumulate layers of imagination. A clock is not simply a clock, as Eric Kluitenberg, like Mumford (1963 [1934]) before him, argues. It has

variously been imagined as: (1) a device that imposes onto the world the regularity of the divine; (2) a conceptual model for the movement of the heavens; (3) an object that embodies the strength of human achievement; (4) an oppressive device that robs living labour of time (2011: 49-50, 57-58). These meanings do not replace or subsume but graft onto one another. In 2017, the clock is all of these things simultaneously. It thus offers insight into imagination not only in terms of fictional or impossible desires, but also regarding the conditions of imagining. “The question of imaginary media,” according to Parikka, “is what *can* be imagined, and under what historical, social and political conditions?” (2012: 47).

Much more can, has, and should be said about imaginary media (see especially Kluitenberg et al., 2006). For now, let’s emphasize that in addition to mediating impossible desires and thus teaching us about historical imaginaries, theories of imaginary media challenge narratives that see technological development as a straight arrow of progress, or which understand media only in terms of use.

That’s three ways that media theory takes imagination as an object. We might have assumed at the outset that thinking about thought would plant us squarely in the realm of ideas. But we’ve seen how media-theoretical thinking takes ideas out of the clouds, grounding them in material, discursive, and technical contexts. We land on the plane of technologies and techniques, hands, mechanisms and inscription surfaces – elements that for centuries were ignored by historians and philosophers.

Imagination as Method

Now, to imagination as a method. I’ll spare you another triad and focus on writing and textual production. Experimenting with form and style has long been part of media theory, and it’s worth opening a conversation about how and why.

Let’s start with Harold Innis, whose work was stylistically peculiar. Throughout the 1920s and 30s, Innis conducted extensive field work for his economic histories of Canada. He called this *dirt research*, which is a term I like because it captures (or conjures) something about the gritty realism of the knowledge he sought. It was field work that went beyond ethnography. It paid as much attention to geology and

biology as to culture, to non-humans as to humans (hence his 1930 book, *The Fur Trade in Canada*, starts with a 5-page ethology of the beaver). It is about impressions and enumeration rather than thick description or analysis; ontics, rather than ontology (see Young, 2017). Innis sought to let the dirt of place imprint itself on him, as Peter van Wyck argues in his beautiful and unjustly-neglected book, *The Highway of the Atom* (2010: 198). (One wonders what Kittler might have thought about Innis trying to embody something like Freud's mystic writing pad in this way and at this time.)

Innis's late communication texts (ca. 1948-1952), for which he is now most widely known, echo the scattershot style of his field notes. *Empire and Communications* (1948), *The Bias of Communication* (1951), and his unfinished *History of Communications* manuscript (2014) were apparently produced, at least in part, using a cut-up method – more than a decade before William S. Burroughs popularized it. There's even some evidence that he experimented with early photocopy technology to facilitate this cut-up method (Chisholm, 1970; Watson in Innis, 2007 [1948]: 16). He'd cut sentences from the photocopies and rearrange them on a new page, often without adding any connective tissue (or citing the original source). I wonder how playing around with their order and arrangement spurred his thinking. It certainly falls in line with his habit of reading several wildly divergent books at the same time so as to open his mind to surprising connections. (McLuhan joked about using a similar technique, “reading only the right-hand page of serious books” in order to combat their “enormous redundancies.” This, he said, kept him “very wide awake filling in the other page out of my own noodle,” *Telescope*, 1967).

Innis's motivations for the cut-up method are mysterious. Whatever they were, the effect of the style was to both confuse and inspire (which are not always, or ever, so different). The communication texts are hard to read – everyone agrees on this. They are fast, disconnected, and unsystematic. James Carey described this style as akin to a poem, “an infernal quotation machine of indirect speech – with its author elusively hidden within it” (Carey, 1999: 84). The connection to poetry is not such a stretch. Innis was after, I think, a generative rather than analytical bias, a style to counterblast what he called the *mechanization of knowledge* – the standardization of thinking that

would sap its power. He makes us, as readers, work for it. And we are the better for it.

That almost all media theorists are indebted to this style (whether they know it or not), is a testament to its power. McLuhan's "probes" and mosaic approach are direct descendants. He crashed incongruous elements together to see what new pathways for thinking such collisions might open. McLuhan didn't only theorize "cool" media, he wrote in precisely this way – replacing rigour with creativity, refusing to be didactic, inviting readers to think, and thus demanding we become active. Kittler's jump cuts extend this style, as I described earlier, and imaginative experiments continue: Cornelia Vismann's book, *Files*, formally enacts the acceleration of data processing that is the topic of her book. Early chapters about antiquarian techniques of file management are long, detailed, and syntactically complex. As the book moves forward in time, explanatory detail and connective tissue between ideas become more scarce. Sentences are short. She mirrors, stylistically, what she describes: the increasing obsolescence of humans in data circulation and management. The complexity and speed of the final chapter – which folds together Babylonian clay tablets and the digital computer and clocks in at 4 pages – almost exceeds the ability of a human reader to keep up.

For a final example, let's return to Nietzsche's famous words: "our writing tools are also working on our thoughts," which may have been written on a typewriter but were certainly written under its influence.

Nietzsche turned to this bizarre mechanical writing ball [see Fig.1] as his vision deteriorated. Its discrete alphanumeric characters snapped letters into place, one at a time, and untethered writing from his hand. Kittler suggests this caused Nietzsche's writing to move "from arguments to aphorisms, from thoughts to puns, from rhetoric to telegram style" (1999: 203). He clacked violent truths from the machine, like bullets, and Kittler argues further that it was this mode of writing that revealed genealogy to Nietzsche as a method of historical analysis – that the writing ball's deconstruction of words into individual keystrokes showed the essential contingency of language, knowledge, and concepts previously unquestioned. Once language and the authorial subject go, any stable conception of ideas, history, or God melts away.

As Kittler writes, “under conditions of media the genealogy of morals coincides with the genealogy of gods” (Kittler, 1999: 211). It is no coincidence that genealogy continues to be a touchstone for literary media theory.

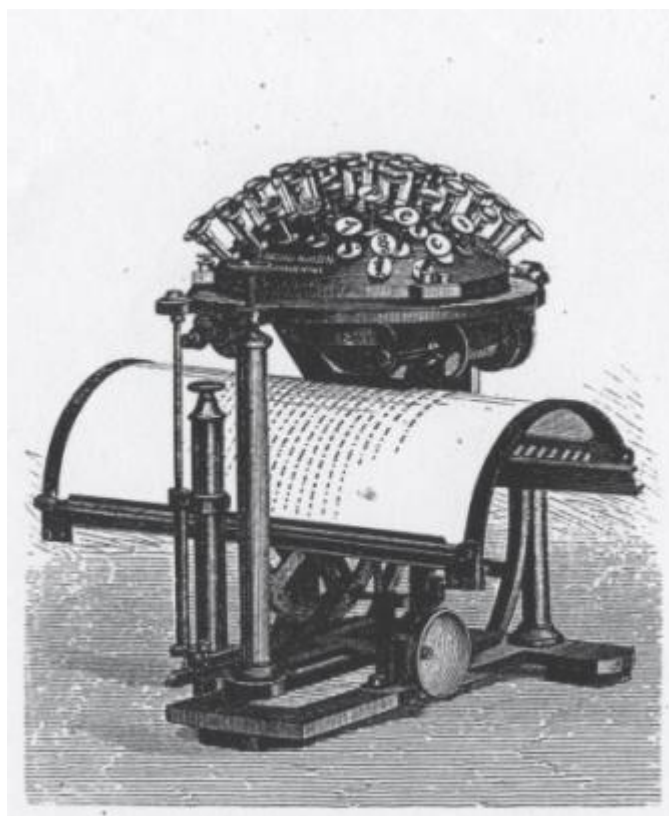


Figure 1: [Malling-Hansen Writing Ball, ca. 1878](#)

Each example in this montage exhibits experimentation with literary and poetic devices: aphorism, digression, metaphor, juxtaposition, and analogy, among others. These techniques resist standardization, which is a deep ethic that unites media theorists from Nietzsche to Innis, Kittler, Vismann and beyond. To break free from old habits is to explode the horizons of thought in any given historical moment; not just to diagnose media environments and structures of power, but to imagine alternatives.

This task is increasingly urgent. Global logistical systems, emergent artificial intelligences, and other new forms of computation, commerce, and governance annihilate traditional modes of understanding and organizing life and labour on the

planet. We are in need of different metaphors, concepts, and modes with which to understand the systems that enframe us. Literature and literary media theory have been sounding this alarm for some time; we would do well to heed their call. This journal offers an exciting new space for such work.

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Notes

¹ An earlier version of this essay was delivered as an opening address at the annual conference of the Communications Graduate Caucus, Carleton University, 16 March 2017. My thanks to Michael Morse and Chris Russill for comments on earlier drafts.

² “Such a change [from print to the electric age] is not a difficult matter in itself, but it does call for some reorganization of imaginative life” (McLuhan, 2011 [1962]: 3).

³ What I describe as ‘literary media theory’ is similar to what Pryor, Trotter et al. (2016) explore as ‘technography’ – writing that is not only about technology but is also aware of its own technicity. I’m sticking with ‘literary media theory’ to preserve focus on media theory as a field, and because the thinkers explored here all use the word *media* rather than *technology* or *machine*. (This conceptual choice – to understand *media* instead of technology – would make for another worthy study).

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