Full Abstract: A wide number of contemporary political assemblages from mass surveillance to finance capitalism to big data suggest that we may be in the midst of new political conditions. Some have sought to conceptualize these assemblages in such terms as “the information society” or “new media culture” while others would amalgamate them as part of the hybrid beast of “neoliberalism”. I here argue for a different conceptualization of the stakes of these contemporary political transformations. My analysis focuses attention on new modes of power. In this focus I concur with a handful of new media theorists who have made productive use of Michel Foucault’s analyses of biopower. By adopting a methodological approach grounded in Foucaultian genealogy, I attempt to radicalize the work of these new media theorists. I argue on genealogical grounds that we are in the midst of emerging political landscapes that cannot be comprehended by biopower. What we need instead is a novel conceptual device of infopower (specifying the intersection between information and power). Why does this matter? If my argument is right, then contemporary political theory needs to be able to think beyond (but without abandoning) both the general problematic of biopower (Foucault, Deleuze, Arendt) as well as those many attempts at reconstructing our biopolitical dilemmas as are offered by competing versions of communicative democracy (Dewey, Rawls, Habermas).
Note: This paper is a significantly abbreviated draft version of a chapter that will (maybe? hopefully?) eventually become the introduction to the book on which I am working. My presentation at WPSA will draw more from a later chapter of the book project, but this paper is the best standalone framing I have for the presentation at this point. The presentation will be based on a slideshow available here: https://prezi.com/ozds63cpcwda/. Note, however, that due to time I will focus my presentation primarily on the slides at the end of the series.

I. Emergent Political Conduct

...

II. New Power, New Concept

...

What I propose here (in outline form only given limits on presentation time) is a conceptualization of infopower as a means of getting grip on what is different about the now in contrast especially from bio-power, anatamo-power, and sovereign power. Such a proposal could be developed in any number of forms, but minimally two tasks seem crucial. The first would be a specification of the new modality of informational power in such a way as to expressly distinguish it from the well-known modalities of power with which it contrasts. The second would be a detailed explication of the history of the operations of informational power. I here pursue the first of these tasks as a more theoretical exercise that will pave the way for the latter and necessarily more empirical second task. But I shall not here have the space to recount that empirical work.

...

III: Glimpsing Infopower

...

My argument is that we find ourselves today midst political conditions such that we need to press beyond the received wisdom of political theory. But pressing beyond does not mean
abandoning. It simply means undertaking new inquiries in the contemporary.\textsuperscript{1} The virtue sustaining such work is curiosity. Its vice would be cynicism.

Inquiry is needed because, not for the first time in modern political history, we find ourselves midst a swarm where we can no longer get by with the cocoons of our conceptual inheritance. The fortunate upside, for the political philosopher at least, is that we live in that cursed time where everything is enormously interesting. So at least the political philosopher now has something to do again. For until recently it was not clear that there was all that much conceptual work left for us after so much careful limning of the contours of biopolitical regulation and communicative liberalism. There was, of course, much work that remained in an empirical mode of tracing the actual deployment of these concepts. But that does not mean that there was anything important to be gained by the quintessential philosophical task of producing new conceptual material.

To locate the need for new conceptual material where philosophy might again do its work, we need to turn our attention to emerging political moments. These emergent moments, to reiterate a crucial point already made above, do not imply the dissipation or refutation of prior moments of power. The emergence of new forms of power today does not entail that we are not still deeply immersed in sovereign power, anatamopower and biopower. All it means is that this immersion is not total and exclusive. There are new practices—many of which are of course partly sovereign, anatamopolitical, and biopolitical—that cannot be wholly comprehended in terms of these previous modes of power. Consider this short list of contemporary tendencies that simply cannot be made sense of according to our inherited concepts of power: capitalist financialization, the massive torrent of online file sharing, online identity management and protection, marketing analytics categorization of consumer types, and the figure of the cyborg as a sign of resistance. Though this concoction is seemingly disparate there is in fact a core thread that runs through each of these tendencies: the power of information and the politics of data.

The paradigmatic technologies of sovereign power were the noose and the guillotine. The technological paradigm of disciplinary anatamopolitics was the watchtower and that of biopolitics was the census form and the public health policy. Each of these technologies can be conceptualized as to figure as a prototype of our contemporary information technologies. But

\textsuperscript{1} On the significance of inquiry into the contemporary see recent work by Paul Rabinow such as his books \textit{Anthropos Today} and \textit{The Accompaniment}. 

3
they were only prototypes. They are not paradigmatic tools of informatics management, making, and multiplication. For that we need a new paradigm. The exemplary technology of our contemporary infopolitics is undoubtedly the algorithm.

... 

IV. Conceptualizing Infopower

... 

Infopower is a new consolidation of energies that has to do with the generalized production of informational subjects and objects. At its most general level, infopower is a power of fastening in a double sense—both tying down or grasping or canalizing and speeding up or accelerating or quickening. Infopolitical fastening is a mode of power that grasps and accelerates the subject. The concern of this power is less that of regulating and surveilling populations and more that of the very design and formation of masses of data that can later be leveraged for regulation, surveillance, and a number of purposes.

What matters more than definitions are conditions. Understanding the conditioning that made fastening possible requires critical inquiry into the history of information as a possibly political procedure. The general conception of fastening, then, demands and deserves further elaboration, specifically historical elaboration.

... 

V. Historicizing Information Itself

... 

One way of understanding the infopolitical power of fastening is by way of reference to the seminal work of the great mid-century founders of information theory. One major figure here is Claude Shannon, whose famous 1948 paper “A Mathematical Theory of Communication” was an attempt to solve the problem of communication under conditions of electrification. Equally if not more important was the cybernetic theorist Norbert Wiener whose generalized philosophy of communication as set out in his 1948 book Cybernetics made an enormous intellectual impact before silently receding from view as it comfortably assumed its place as the unquestioned orientation underlying much of our contemporary conduct. An important part of the background for the influence of the Shannon-Wiener philosophy was the generalized
acceptance of the biopolitical problematics of administration and regulation that was won in the
decades when they were young. In the early twentieth century it became increasingly accepted
that communication would in some way need to figure in to the core of the democratic response
to biopolitical administration. One impressive locale for this was the Dewey-Lippmann debate
over public opinion in the age of the radio and newspaper, and in particular Dewey’s argument
that only rich communication flows within publics would lead to democratic solutions to
political problems.\(^2\) In the context of aspirationally-democratic societies, then, a very old
question once again became increasingly poignant: What is communication? This question was
renewed across culture on philosophical, political, and technical registers.

The most influential response to this crucial question, it would later turn out, was that for
which Wiener and Shannon still remain our paradigm. At the heart of their theories was a
conception of communication as the pure transmission of information. It was above all this
aspect of their theories that would be central to the communications revolutions of the twentieth
century. But it is important to set the success won by their theory against the background which
made such success possible. Their arguments begin by assuming that communications were
crucial for contemporary society. Wiener could confidently write, without even hinting at the
need to argue for the point, that “the present time is the age of communication and control.”\(^3\)
The confidence was not unwarranted. Some twenty years after Lippmann and Dewey’s
arguments about democratic communication, Wiener could breezily turn his attention to the very
nature of communication itself since it was so widely accepted that communication was of
capital import.

In a way, then, it is misleading to think of Shannon and Wiener as “the fathers of
information theory”, as they are often called. Shannon’s famous paper is explicitly “a theory of
communication” and Wiener’s famous book is devoted by its subtitle to “control and
communication.” Shannon and Wiener were above all theorists of communication, for this is
where all the action was in the decades in which they were writing. It was only in the context of
a biopolitical fever for communication that they could open up the concept of communication to
discover within it an idea of information whose potential proved enormous. Shannon and

---

\(^2\) See Dewey (1927) in reply to Lippmann (1922 and 1925).
\(^3\) Wiener 1948, 39
Wiener were then paradigmatic of the moment in which information was both fathered and mothered, but their role in its spawning was somewhat accidental. They sought a solution for problems of communication. As part of that solution they somewhat unwittingly consolidated an entire matrix of informatics that in the decades preceding their work had slowly been gaining cultural stability. What was being bred in those preceding decades was an informational society that would soon take as nonnegotiable the value of communication.

Shannon and Wiener should thus be read as proposing an idea of information as part of a response to the problem of communication. The actual impact of their ideas, however, went well beyond their purposes. The Shannon-Wiener paradigm helped shift the emphasis of interest from communication to information, because they showed in a sense how communication itself need no longer be a challenging, at least not at a technical and engineering level. In effect, then, Shannon and Wiener opened up rather new problems having to do with the very preparation of the information that could now be so effectively communicated. Their work returns us, ironically, to a classical conception of information as a project of giving form, of formation, of putting in a form, as for example the now-quotidian practice of writing one’s legal name in standard form, and on a form.

This takes us to the truth behind recent media theoretic work which teaches us that Shannon and Wiener encapsulate, or even “father”, for us a problem of information (see for instance Terranova, etc.). But the point is too often put in misleading terms, as if Shannon and Wiener themselves had been looking to solve a problem in information theory. Rather, Shannon and Wiener invented the problematization of information theory as part of their solutions to the problematic of communication. With respect to this new problem, we should expect Shannon and Wiener to be rather unhelpful precisely because they are part of the emergence of the problem of information rather than part of the resolution or dissolution of this problem. Indeed we might expect the entire information age to be rather unhelpful in addressing the core problematic of information as a mode of power—for the simple reason that the information age presupposes information as its basis.

It is, then, perhaps unsurprising that contemporary critical theory has yet to fully confront the moment of Shannon and Wiener. But we really should be thunderstruck at the fact that much political theory, for example, remains singularly obsessive over the dynamics of communication in such of its latest iterations as deliberative democracy and public reason. With respect to
nearly every problem we face, there is a whole team of theorists who eagerly tell us that communication, deliberation, and public debate are a key ingredient in the solution. Nobody should deny that this is true for many problems (namely, for problems of biopolitics as well as for many problems of sovereign power). But it simply cannot be true for all of our problems. For if the assumption that communication is a solution itself generates information as a problem, then it is a simple conceptual truth that communication cannot be a solution to the problem of information. Communication can only generate and distribute information, but it cannot deal with information as such. Communication, as the familiar cliché has it, overloads us with information such that it cannot possibly deal with information taken as a problem. Consider again the nightmare scenario of the permanent impossibility of your possessing any informational identity. The nightmare is in part due to how it would debilitate all of our familiar tactics of political, legal, bureaucratic, and otherwise social response. What use would it be for someone in such a position to communicate to the bureaucrat given that bureaucracy cannot address a subject as other than information and that the subject position in question is precisely one to which no information can be attached. This nightmare, I hasten to remind, is of course mere fantasy. But what our reaction to it shows is just how attached we are, from a practical point of view, to our informational selves.

What this suggests is that deliberative democratic theory is massively incomplete as a theory of contemporary political acutality. The communicative paradigm is addressed to problems that began to obsess political theory almost one hundred years ago. Those problems are still with us. But in addition new problems have since emerged. We are also now steeped in those other difficulties opened up by Shannon, Wiener, and rafts of other more humble technicians of information who preceded and followed them. More than fifty years after the high cybernetic moment, it is well incumbent upon us to finally move beyond the conceptual equipment offered by Dewey, Habermas, Rawls and others whose political theories are couched as responses to the general problematization that they initiated the displacement of. What we need, at long last, is a generalized interrogation of the conditions of our infopolitical present. What we need, again, is simply more inquiry.

To even begin to undertake such inquiry we must first recognize that one theoretical blockage in our present moment is our obsessive fixation on communication as the only running format for political solutions. Here we should heed the advice of Deleuze: “We do not lack
communication. On the contrary, we have too much of it. We lack creation. We lack resistance to the present.”

4 Galloway, following Deleuze, similarly claims: “The question today not so much can the subaltern speak, for the new global networks of technicity have solved this problem with ruthless precision, but where and how the subaltern speaks, or indeed is forced to speak.”

5 The problem of communication has been solved—and indeed all too well. Right at the center of our spiraling networks of communication is a gaping conceptual blindness: the great grey fog of the politics of information.

It is crucial to note that I am not urging that the work of the mid-century electrical communications theorists holds the key to contemporary political reality nor am I arguing that we need a new political theory rooted in the ideas of Shannon and Wiener. Far from it. A small but growing number of critical theorists have recently taken on the communication theorists as part of a broad attempt to role back the onrush of the cybernetic society. According to these criticisms, what is most contestable in the work of Shannon and Wiener is not the value ascribed to communication but rather the particular informatic inflection they gave to communication. I agree with N. Katherine Hayles, Friedrich Kittler, Tiziana Terranova and others who have argued that the cybernetic model of communication relies on a series of heady wartime abstractions.

I also agree with these critics that the model is riddled with philosophical gaps that a more rigorous thinking would fill in. These critics thus help us see that what we really face is a problem that we have yet to take seriously enough.

Yet despite my sympathy with these standard critiques, it is not at all clear that the information-theoretic model is for us simply a fantasy we can dispense with once we realize that it is an abstraction. Yes, the model is a massive idealization, but why deny that some abstractions sometimes make themselves practically obligatory? Why deny that whenever such abstractions install themselves, contesting them can no longer be a mere theoretical game to be

---

4 D&G, What is Philosophy?, p. 108
5 Galloway, Interface Effect, p. 128
6 See canonically Hayles (1999, Ch. xxx), Kittler (1986, 259), and Terranova (2004, Ch. 1): for two more recent examples see Hayles (2010, 147) and Clarke (2010, 140).


won on the flat plane of argumentation? Why presume that the critic could simply argue away the cybernetic model that is presumed in nearly every digital network and tele-presence on the planet today, including all the devices and services enrolled in the production and distribution of the words you are now reading? I thus agree rather with Seigfried Zielinski who writes in his 2002 *Archäologie der Medien* (translated into English in 2006 as *Deep Time of the Media*) thereby losing its titular Foucaultian resonance: “A short in the cybernetic system—one cannot get the better of this programmed and standardized world by machine wrecking; that course of action was already doomed to failure in the century before last. The only effective form of intervention in this world is to learn its laws of operation and try to undermine or overrun them.”

Contesting the rolling cybernetic tides must today be a more complex practical labor that takes place within the arcing circuits of that “informatics of domination” we all know all too well. The work of critical theory can contribute to that labor, but not if it assumes (as it does in the work of countless critics of so-called ‘new media’) the tired mode of denunciation that operates the old dialectical game of ferreting out contradictions and abstractions. For what important social-cultural formation ever purified itself of abstraction and contradiction?

I find it telling that those very critical theorists who address the work of the mid-century information theorists in a denunciatory mode tend to do so by way of a subtle dehistoricizing of the information theory of which they treat. My point, of course, is not that these theorists are flatly ahistorical thinkers. Terranova, Hayles, and Kittler are in fact exemplary modelers of the historical critique of information. My point is rather that despite the best impulses betrayed by their work, they tend to treat information theory itself as ahistorical whenever they confront it. Much critical work positions information theory positions as the historical starting point for contemporary informational ecologies, data cultures, or new media societies. But the milieu of information theory itself, it is frequently argued, originated out of nothing in the experience of mid-century wartime requirements. Thus communications historian John Durham Peters writes of information theory as “the child of war” that itself performs an “intellectual imperialism.”

And media archaeologist Friedrich Kittler casually asserts that, “cybernetics, the theory of self-

---

7 Zielinski, *Deep Time*, p. 260
8 Cite Haraway xxx
9 Peters 1988, 19, 18
guidance and feedback loops, is a theory of the Second World War.”10 The problem with such arguments is that they tend to treat information theory itself as an ahistorical baseline whose emergence need not be explored. For these arguments tell us that information theory was born of a rampant wartime exuberance for research on communications, ballistics, and cryptography. This argument is not only the default story told by contemporary critical theorists, but it is also the popular narrative purveyed in cinematic representations and as well the precise narrative forwarded by the information theorists themselves (whenever they sought to account for their own origins). Kittler thus confidently quotes Wiener himself, writing that, “The deciding factor in this new step was the war.”11 But why follow Wiener in locating the origin of informational cultures in the wartime moment? Kittler’s own approach would have seemed to suggest the alternative argument that the fin de siècle development of gramophones, film, and typewriters were crucial precipitants for information theory. Kittler’s overly-schematic separation of the history of communicational modernity into three phases, with computation being only the third phase, nearly makes this point.12 But it is a point that Kittler does not develop. And it is a point that his own obsession for originating cybernetics in the war gets in the way of.

This criticism of Kittler is not mine alone. Jussi Parikka criticizes Kittler’s emphasis on mid-century information theory as “the ‘founding event’ of modern media culture.”13 He goes on to point out that, “the work on signals and communication predates World War II.”14 Indeed it does. But in seeking to trace the origins of information theory further back into the communications engineering of the 1920s and into the theoretical physics of the 1880s, Parikka just replaces one historical baseline (post-war cybernetics) with another. In other words, Parikka pushes back the temporal envelope by way of a historical methodology that ultimately leads to an ‘origin’ that is both the beginning point of the account and the ending point of any future inquiry.15 On the tack I pursue in what follows, the desiderata of a critical history of

---

10 Kittler 1986, 259; the claim is repeated in Kittler 1990, 180; see also the formally analogous argument in Kittler 1986, 190 that the American Civil War was the scene of production for the typewriter.

11 Wiener xxx quoted in Kittler 1986, 259 (citation is to Wiener 1961 [Cybernetics], p. 3)

12 Kittler 1986, 243

13 Parikka 2012, 95

14 Parikka 2012, 96

15 Thus unsurprisingly Parikka misreads Foucault’s genealogical account of conditions of possibility for an historical account of “conditions of existence” (2012, 6).
informational theory should not be an origins story at all, but rather an historical account of the
conditions of possibility of emergence, of uptake, and of the inhabiting of information by what
would come to be called ‘information societies’. What needs explanation is not the birth of
information theory itself, but rather the striking fact of its dramatic uptake in the years during
and just after the war. This would be one critical difference between a ‘history of origins’ and a
‘genealogy of emergence and descent.’

Information theory deserves explanation precisely because of its uptake—precisely
because postwar information theory has been crucial to the formation of our contemporary
milieu. Information theory and practice is the positive a priori of the now. But we need to
historically interrogate the emergence of the information assemblage itself. Information theory
did not just simply spring out of the rambunctious requirements of wartime necessity. Even if
wartime research was its context of origination, that does nothing to explain the exuberant uptake
of information theory in the postwar milieu, where those requirements were no longer in play.
Information theory was brought into being and carefully cultivated in an historical context. To
understand that context is to understand the conditions that made possible the take-off and up-
take of informatics. That would in turn aid in an understanding of the way that informatics
continues to condition us in the present.

In following chapters I attend to this context in terms of the changing shapes of
selfhood that, from the end of the nineteenth century to the middle of the twentieth century,
helped make information theory seem such a pretty companion. In short, my argument will be
that information theory was received, and reproduced, with such a fever because those who
received and reproduced it had become accustomed to thinking of themselves in terms of the
 informational output of algorithmic technology.

I track this in chapters devoted to: firstly, the emergence and stabilization of personality
psychology from 1917 to 1937 (with its attendant conception of ‘personality traits’ and its
attendant rivalry with hermeneutics); secondly, the paperification of the self as represented in a
range of legal and bureaucratic technologies from the standard two-place name to the driver’s
license to the social security card; thirdly, proposal after failed proposal for a universal language,
the persistence of which betrays the promise for the perfect translatability of thought and self

16 On the distinction between origins histories and Nietzschean genealogies of emergence and descent see Foucault
1971.xxx
across context in a way that exactly anticipates post-war conceptions of information as non-contextual and non-semantic.

The standard historical narratives tell us that personal information is a product of a society presupposing information theory. This is the narrative that is common to the small body of critical-theoretical work on information theory, the autobiographies of those who produced the subject itself, the popular filmic representations of the subject, and the contemporary reproduction of informational cultures by corporate conglomerates who are all too happy to have us think of our personal data as a residue that inevitably flows out of the efficiency of informatics systems. To this narrative of personal information as the flotsam of information theory, my counter-narrative is that information theory itself is the product of practices populated by informational persons. We began to become our information before we began to elaborate social structures self-consciously built up around informational processing. At the core of the theoretical construction of information are a congeries of everyday practices now said to be elaborated on its basis: familiar images of the self as plotted in data, produced by questionnaires, verified on cards, primped and preened in profiles, and made legible in all manner of dossier. Such images of the self are both alluring and disturbing. That is a sign that they are crucial to the problematization within which informational cultures persist.

Interrogating this problematization requires a reorientation of the work of critique itself. If the standard model of critical theory as a robust machine of rational denunciation has “run out of steam,” then what we require vis-à-vis the cybernetic model today is theory in rather more diverse modes of critique. My argument is that critique at its best inquires after historical conditions of possibility. In doing so it suspends the work of judgment (thus of denunciation as well as vindication). It does this in order that it might take up the work of explicating the inherited conditions that constrain conduct in the present. In the case at hand, then, my argument is that what is needed today at long last is a critique of our cybernetics cementing and our informatics fastening. If I am right about this, then the genealogy that follows would be one, but only one, way of pressing the nose of critical theory right up against that great grey present without pretending that we can shatter all that brittle glass that has been built up around us.